

BRATTLEBORO PLANNING COMMISSION
NOTICE of PUBLIC HEARING
to Consider the Proposed 2018 Brattleboro Town Plan
Monday, March 19, 2018, 6:00 PM
Brattleboro Municipal Center, Planning Services Department Room 204

In accordance with 24 VSA Ch. 117 §4384, the Brattleboro Planning Commission will hold a public hearing on Monday, March 19, 2018 at 6:00 PM, in the Planning Services Department (Room 204) at the Brattleboro Municipal Center, 230 Main Street, Brattleboro, to receive public comment regarding the proposed 2018 Brattleboro Town Plan. The proposed 2018 Town Plan, which would affect all lands within the Town of Brattleboro, was prepared by the Planning Commission to serve a number of purposes. It will serve as the policy document to guide municipal decisions related to land use and development regulations, environmental protection, the provision of municipal facilities and services, strategies for economic development, and the quality of life desired by the community. It also furthers the goals established in the Vermont Municipal and Regional Planning and Development Act. The proposed Town Plan includes all of the required elements set forth in the Act [§4382], including the following specific chapters:

1. INTRODUCTION
2. ECONOMIC DEVELOPMENT
3. ENERGY
4. AGRICULTURE
5. EDUCATION
6. HOUSING
7. TRANSPORTATION
8. ARTS and CULTURAL RESOURCES
9. HISTORIC and SCENIC RESOURCES
10. MUNICIPAL FACILITIES and SERVICES
11. NATURAL RESOURCES
12. LAND USE
13. TOWN PLAN CAPABILITY
14. IMPLEMENTATION

Copies of the full text of the proposed Town Plan are available for examination at the Planning Services Department on the 2nd Floor of the Municipal Center, at the Brooks Memorial Library, and at the Town website (www.brattleboro.org). Interested citizens are invited and encouraged to attend the hearing or submit comments in writing to the Brattleboro Planning Commission, 230 Main Street, Suite 202, Brattleboro, VT 05301 or by e-mail at sfillion@brattleboro.org. Written comments must be received by 6:00 PM on Monday, March 19, 2018. For specific accommodations please call the Planning Services Department at 251-8154.

Brattleboro Planning Commission Report Proposed 2018 Brattleboro Town Plan

This report is in accordance with 24 V.S.A. §4384(c) which states that when considering an amendment to a plan, the planning commission shall prepare a written report on the proposal. The process to update the Town Plan began four years ago. The proposal is an update to the 2013 Brattleboro Town Plan. Under state law, a town plan needs to be updated every five years. The Plan is needed to.

The Planning Commission is required to report on how the new plan will be consistent with the following state planning goals:

General Goals:

1. To establish a coordinated, comprehensive planning process and policy framework to guide decision by municipalities, regional planning commissions, and state agencies.

The proposed Brattleboro Town Plan is part of a continuous, coordinated and comprehensive planning process dating back to 1963 when the first Town Plan was adopted. The basis of the Town Plan is to communicate a vision of growth for Brattleboro by steering public and private sector initiatives and investment in facilities, infrastructure, and programs. The Plan serves as a guide to the Selectboard, Planning Commission, Development Review Board and other Town and State boards and commissions in reviewing development proposals. This Plan also identifies current conditions and gathers public input as a resource for future public spending on community facilities, roads, utilities, parks, housing assistance, economic development, and other municipal programs and services. Data and information related to the town, its residents, housing, and economy have been updated reflecting current data from the US Census, American Community Survey and State agencies.

2. To encourage citizen participation at all levels of the planning process, and to assure that decisions shall be made at the most local level possible commensurate with their impact.

The 2013 Town Plan, which serves as the base of this Town Plan, included a comprehensive community planning process with several outreach activities. Conditions did not change appreciably and so the Planning Commission relied on that feed and considered several additional planning efforts that were undertaken from 2012-2017. These included work associated with a National Endowment for the Arts Our Town grant, Design for Resilience in Brattleboro's Lower Whetstone Brook Corridor (completed in 2016), and the Downtown Brattleboro Parking Study.

3. To consider the use of resources and the consequences of growth and development for the region and the state, as well as the community in which it takes place.

The Town Plan includes a section that discusses compatibility of the plan with the adopted plans of neighboring communities and with the Windham Regional Plan.

4. To encourage and assist municipalities to work creatively together to develop and implement plans.

Through Planning Department staff, the Planning Commission reviewed plans from neighboring municipalities and was apprised of planning efforts going on at a regional level. This Plan acknowledges Brattleboro's status as the largest community in the county and the importance of this role.

Specific Goals

1. To plan for development so as to maintain the historic settlement pattern of compact village and urban centers separated by rural countryside.

The Future Land Use Plan focuses future growth along a north-south axis. The hope is that it will help to (re)develop commercial and mixed use areas. Traditional residential neighborhoods adjacent to downtown should also attract a degree of redevelopment resulting in greater densities while achieving well accepted 'smart growth' goals while reducing exposure to future flood damage along the Whetstone/Rt. 9 corridor.

2. To provide a strong and diverse economy that provides satisfying and rewarding job opportunities and that maintains high environmental standards, and to expand economic opportunities in areas with high unemployment or low per capita incomes.

The Plan seeks to pursue economic development strategies that increase prosperity and economic opportunity, to ensure a healthy community that respects the physical environment. It seeks to make the most of Brattleboro's prominent place-based assets that contribute to a high quality of life that make it attractive to small to medium business enterprises and relocating households linked to the knowledge-based economy and creative sectors. The Plan calls for build partnerships with public and private stakeholders to capitalize on development opportunities, increase access to affordable business infrastructure, and foster growth in industry clusters.

The Plan includes chapters on Agriculture and Arts and Culture, in part, to recognize their contribution to Brattleboro's economy. The planning for growing the agricultural economy include coming up with strategies to protect the long-term viability of agricultural lands, encouraging locally-grown food products, and supporting activities to make farming a successful economic enterprise. For Arts and Culture, recognizing the economic contribution of the creative industries is an important policy for the Town to pursue.

3. To broaden access to educational and vocational training opportunities sufficient to ensure the full realization of the abilities of all Vermonters.

Education is addressed in a separate Town Plan chapter. The Plan does commit to working cooperatively with the school districts, colleges, and other education providers, to meet facility needs, fostering a safe and healthy school environment, and recognizing the critical role that all types of education plays in Brattleboro's vitality and character. The Plan also supports continued financial contribution for early-education.

4. To provide for safe, convenient, economic and energy efficient transportation systems that respect the integrity of the natural environment, including public transit options and paths for pedestrians and bicyclers.

As a regional center with significant warehousing and transportation activity Brattleboro depends on maintaining vital intermodal links to the region and further afield while preserving a traditional pedestrian-oriented downtown and quiet safe local streets. This plan responds to commitments made in the state legislature in the Complete Streets bill (H.198) designed to reduce dependency on the private automobile by improving the experience of other road network users and public transit users. The plan seeks to improve traffic flow on major arterial roadways and promote traffic calming in residential neighborhoods. Finally the plan encourages more walking and biking by identifying where improving the pedestrian and bike infrastructure in Brattleboro will have the best outcome.

5. To identify, protect and preserve important natural and historic features of the Vermont landscape, including: significant natural and fragile areas; outstanding water resources, including lakes, rivers, aquifers, shorelands and wetlands; significant scenic roads, waterways and views; important historic structures, sites or districts, archaeological sites and archaeologically sensitive areas.

The Town Plan includes a map that shows Brattleboro's significant scenic resources and includes an inventory of important historic structures and districts as well as archeological sites. The Plan supports pursuing Certified Local Government (CLG) status. Consideration was given to important scenic in creating the Future Land Use Plan.

The Town Plan includes maps of Brattleboro's significant natural resources including but not limited to surface waters, natural heritage areas, and areas that rank high for wildlife. The Natural Resources chapter of the Plan includes policies and recommendations for protecting these resources – both through regulations (e.g. stream buffers) and non-regulatory means (e.g. working to eradicate invasive species).

6. To maintain and improve the quality of air, water, wildlife and land resources.

Many of the recommended policies and actions in the Natural Resources chapter of the Plan incorporate techniques to protect and enhance environmental quality – including recommendations for more effective stormwater management; stream, river and wetland setbacks and buffers; restricting development in floodplains, on steep slopes, and in high elevation areas poorly suited for development; and the use of conservation easements and development regulations to protect significant resources.

7. To encourage the efficient use of energy and the development of renewable energy resources.

The Energy chapter addresses energy conservation and efficiency, and renewable energy sources. It also supports building on previous municipal and school district efficiency and conservation efforts (e.g. converting street lights to LED fixtures)..

8. To maintain and enhance recreational opportunities for Vermont residents and visitors.

Recreational opportunities are discussed in several chapters - Recreation and Parks facilities are addressed in the Municipal Facilities and Services chapter, trails are addressed in the Natural Resources chapter, and waterfront activities are addressed in the Land Use chapter. The Plan promotes coordinating a community trail system that accommodates a variety of trail users and creates trail linkages.

9. To encourage and strengthen agricultural and forest industries.

As noted above, agriculture is addressed in its own chapter. The Plan recommends the continuation of the Agricultural Land Protection Fund as a way to preserve land for farming as well as an expansion to that program so that the funds can be used for other infrastructure that enhance the viability of farming. Forestry is addressed in the Natural Resources chapter. It recommends adhering to best management practices helps to sustain the timber resource so that it can be harvested repeatedly while mitigating downstream effects.

10. To provide for the wise and efficient use of Vermont's natural resources and to facilitate the appropriate extraction of earth resources and the proper restoration and preservation of the aesthetic qualities of the area.

The Plan discusses the existing private gravel operations in town and briefly details the existing protections afforded in the Land Use Regulations which include evaluating operations for their impacts on groundwater recharge, soil erosion, and road and traffic conditions.

11. To ensure the availability of safe and affordable housing for all Vermonters.

Local housing conditions and needs are evaluated in the Housing chapter. Plan policies include promoting the rehabilitation and conservation of existing housing units; directing new residential development to areas where infrastructure is readily available and away from vulnerable areas; promoting energy efficiency, universal design, and sustainable building; and continuing to support affordable housing. The chapter also provides some background on key initiatives in the affordable housing market.

12. To plan for, finance and provide an efficient system of public facilities and services to meet future needs.

The Municipal Facilities and Services chapter of the plan identifies municipal facilities and services and provides an assessment of existing facilities and programs and their impact on the community. The Public Safety, Municipal Facilities, and Educational Facilities Map and the Parks and Recreation Map show the location of these facilities. The Water, Sewer, and Electric Utilities map shows the extent of service areas as well as key infrastructure associated with these utilities.

Amongst other policies, this chapter includes policies to improve stormwater management, provide effective police and fire services, use parking technologies that are flexible, and continue to reduce solid waste. It is recommended that a process to better coordinate the adoption of Capital Improvement Plans with the Town Plan be considered.

13. To ensure the availability of safe and affordable child care and to integrate child care issues into the planning process.

The Economic Development chapter of the plan addresses childcare and identifies the various types of child care facilities in town. The chapter highlights how the zoning ordinance provides for childcare uses and looks at data of working parents with children. The plan includes a policy to support access to high quality, affordable, appropriate child-care services in Brattleboro so that parents may participate in education, training and employment opportunities.

14. To encourage flood resilient communities.

Flood resiliency is addressed in the Land Use chapter of the Town Plan. The chapter includes a map of the special flood hazard area and river corridors. There is an inventory of the flood risks. The Town's flood resiliency strategy includes continued regulation in the special flood hazard area, participation in the National Flood Insurance Program, stormwater system improvements, and other planning activities.

Land Area Designation Considerations

This Plan does not propose to alter any land designations from the 2013 Town Plan.

**PROPOSED
BRATTLEBORO 2018 TOWN PLAN**

Prepared by:
Brattleboro Planning Commission

For:
Planning Commission Public Hearing
March 19, 2018
Planning Services Department, Room 204
Brattleboro Municipal Center
6:00 PM

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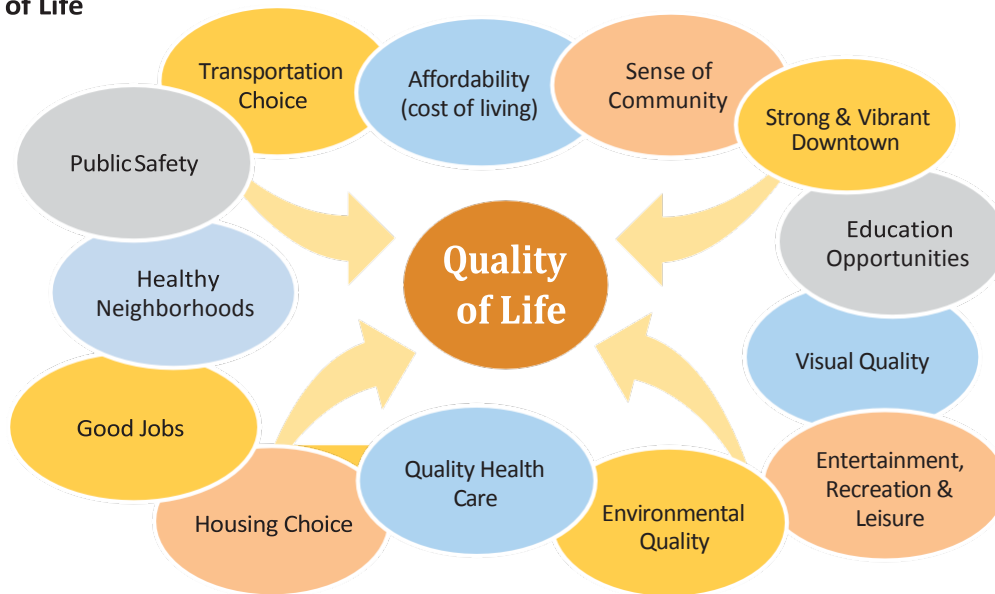
1|Introduction

Brattleboro, Vermont, is located in Windham County in southeastern Vermont. Brattleboro is the first town in Vermont accessible to travelers approaching from the south on either I-91 or Amtrak rail, and from the east (over the Connecticut River) on State Route 9. Brattleboro can be reached by car from Boston within 2 1/2 hours and from New York City within 3 1/2 hours.

Brattleboro has a strong sense of place, a rich heritage, and a diverse economy. It is home to a vibrant downtown, walk-able neighborhoods, a quality school district, preserved natural areas, and great access to shopping, recreation, and the arts. Brattleboro hosts a significant portion of the region’s retail activities and several of its largest employers. These attributes along with many others contribute to the high quality of life in Brattleboro.

As shown in Figure 1.1, our quality of life in Brattleboro is defined by more than just physical and cultural characteristics. This Town Plan—through its goals, policies, and recommended actions—envisions Brattleboro continuing as a major population and employment center. The Plan seeks to retain and build on the quality of life we enjoy.

Figure 1.1 Quality of Life



Source: Hawk Planning Resources LLC

Quality of Life

Brattleboro faces challenges to its quality of life, however, such as negligible growth in total population (which over time is becoming older on average) and shifts in the structure of the local economy, including how it relates to the wider New England and national economies. Brattleboro, a small town in a rural state, is not alone in confronting these challenges, which are commonplace across the country. Although there are few outward signs of growth, such as new residential or commercial development, Brattleboro is in fact changing in other more subtle ways, and our opportunities for protecting and extending our quality of life are also changing. To ensure a continued high quality of life, Brattleboro needs to plan for the impact of long-term demographic change and plan for future development to enhance and protect the character of the community. Therefore, it is important to evaluate where in town growth makes the most sense, and to identify the community's vision for the type of growth desired.

Planning is a dynamic process consisting of recognizing the past, and anticipating and preparing for the future. This Town Plan seeks to set goals that are aspirational, pushing the community to aim high, while at the same time being realistic given the community's capacity (financial and people) and trends (historical and future). It also strives to be environmentally sound, such that the community can meet the needs of the 21st century with assets that can continue to be built on in future generations.

Purpose

The basis of this Town Plan is to communicate a vision of growth for Brattleboro by steering public and private sector initiatives, and investment in facilities, infrastructure, and programs. The Plan serves as a guide for the Selectboard, Planning Commission, Development Review Board, and other town and state boards and commissions in reviewing development proposals. This Plan also identifies current conditions and gathers public input as a resource for future public spending on community facilities, roads, utilities, parks, housing assistance, economic development, and other municipal programs and services.

The Town Plan policies and recommendations will be implemented over time through many distinct actions, including capital improvements, zoning amendments, and changes to other municipal regulations and documents. The Town Plan provides the policy platform for the integration and coordination of these decisions and actions. This Town Plan also provides guidance on how the Town's land use development regulations should be updated and enhanced to facilitate plan implementation. Vermont State Statute requires that the Town's land use regulations be consistent with the adopted Town Plan.

The State's planning statutes require the Town Plan be updated every eight years. This revision and update is needed to respond to changing conditions, unforeseen events and trends, and changing objectives.

Legal Basis

Under the Vermont Municipal and Regional Planning and Development Act (Chapter 117, Title 24, V.S.A.), the Planning Commission has the duty to make and approve a Town Plan and then recommend its adoption to the Selectboard. State Law requires that a Town Plan be composed of a number of interrelated elements that address the following areas: land use, transportation, energy, economic development, utilities and facilities, educational facilities, natural areas, and plan implementation.

The Act also requires that town plans promote goals set forth by the legislature related to both process and planning content. The process goals are designed to ensure that there is coordination across all levels of government, the development of the Plan involves citizens, the Plan considers the consequences of growth, and the Plan encourages towns to work together. The 13 planning goals help to ensure that all town plans are coordinated and reflect the legislature's vision for how land in Vermont will be developed.

Finally, the Act requires that a town plan study present conditions and trends, anticipate future internal and external influences that will affect the town, and formulate policies and actions that will ensure the health of the town in the

coming years.

Links to Past Plans

This Town Plan is the most recent in a series of community plans for Brattleboro. Prior to 2017, town plans in Vermont were valid for five years; they are now valid for eight years. Town Plans are not intended to be static documents and sometimes the work required to implement the Town Plan takes longer than the Plan is valid. One of the major objectives of the 2013 Town Plan was achieved: to update the land use regulations. In the five years since the adoption of the Town Plan, there have been no significant changes in the assumptions, goals or policies that formed the basis of the Town Plan. For this reason, the 2013 Town Plan was reviewed and minor edits were made to reflect what had been accomplished or to address new statutory requirements.

The 2018 Town Plan takes precedence over all previous plans and is the authoritative statement of current Town planning policy.

User's Guide

The Town Plan focuses on a wide variety of interrelated planning areas. Each of these areas is dealt with separately in a Plan chapter. Each chapter includes the following elements:

- **Principle Statements:** Each chapter begins with a statement of the principle that is to guide or influence thought or action, indicating what direction should be taken on a matter. The statement is over-arching, designed to serve as a foundation for the chapter.
- **Goals, Policies, and Actions:** These are the core beliefs that form the Plan. They are located at the front of each topic chapter for ease of reference. They move from the broadest (Goals) to the most specific (Actions).
- **Chapter Text:** The chapters are mostly self-contained examinations of specific issues. An introduction provides an overview of the chapter topic, background that informs it, and an assessment of current conditions (including an inventory where applicable) from which needs and options are identified. The body of the chapter details how the statement of Goals, Policies, and Actions applies to the chapter topic.

Chapter 14 "Implementation" consolidates the proposed action items from each chapter to help facilitate the plan's implementation. This chapter offers strategies that can be refined to determine budget priorities, plan for capital improvements, or develop a work plan.

The Town Plan is a lengthy document, and generally it is not expected that all users of the plan will read it front to back. While chapters may be read independently, given the interrelated nature of the information there are some overlaps of information; wherever necessary, readers are guided in making links with other relevant chapters.

The Town Plan is key to the activities of various groups that influence development in Brattleboro. Below is a guide to how various groups should use the Town Plan:

Planning Commission

While the Selectboard has the ultimate responsibility for adopting and amending land use regulations, they do so based on recommendations of the Planning Commission. Vermont Statute requires that land use regulations be compatible with the Town Plan. Therefore, the Planning Commission should use this document to guide their future work on drafting land use regulations.

Land Use Decision Makers

The Town Plan is often used by the Brattleboro Development Review Board, the Act 250 District Commission, and the Public Service Board when evaluating a proposed development. Decision makers should refer to the Town Plan to justify and explain their decision(s). They can point to the research and maps or refer to the input of the public, whose

opinions helped shape the Plan's goals and policies.

Developers

Developers seek predictability from legislative decision makers. This Plan spells out the community's preferred future—where it wants housing, industrial, and commercial development to go. It highlights aspects of site development (e.g., stormwater management, building design, site amenities, etc.) that are important to the community. While the Land Use chapter is central to a developer's interest, all chapters should be referred to, as development is multifaceted and has multiple potential impacts (e.g., on the transportation system, municipal facilities and services, natural resources, scenic resources, etc.).

Citizens

The Town Plan is not just a policy document for municipal staff; it is the community's vision for its future, and the blueprint for achieving that future. Citizens should refer to the plan to ensure that the decisions being made on their behalf are consistent with stated community desires.

Public Input Process

In 2008, the Planning Services Department initiated a community planning process to update the Town Plan. From 2010 to 2011, the Planning Commission sponsored or supported several public outreach activities. These activities included the Kickoff Meeting, a visioning session with Brattleboro Union High School students, the Sustainability Forum, small group meetings, and the Active Living Workshop. Recurring concerns and aspirations voiced in these meetings included:

1. Improving pedestrian and bicycle infrastructure
2. Preserving agricultural land for local food production
3. Encouraging growth in areas already developed, or where infrastructure exists
4. Accessing the waterfront
5. Maintaining and enhancing the natural environment

In writing the 2018 Town Plan, several more planning efforts were considered. These included work associated with a National Endowment for the Arts Our Town grant, Design for Resilience in Brattleboro's Lower Whetstone Brook Corridor (completed in 2016), and the Downtown Brattleboro Parking Study.

The Town Plan was reviewed by the Planning Commission over the course of several months in 2017. Each chapter was discussed at meetings were properly warned and televised on Brattleboro Community Television. Once the entire plan was reviewed, it went through the Planning Commission and Selectboard hearing process, warned in accordance with State statutes.

2|Economic Development

Goals

- A. To pursue local economic development strategies that increase prosperity and opportunity to ensure a healthy community that respects the physical environment
- B. Foster the growth of industry in existing clusters including, food, forestry, transportation and logistics, precision manufacturing, and green energy
- C. Obtain adequate provision of infrastructure vital for economic growth
- D. Increase the community's commitment to community development, through available grant opportunities and town controlled funds

Policies and Actions

Policy 2.1 Build partnerships with public and private stakeholder groups to capitalize on significant development opportunities

Actions:

- 2.1.1 Participate in regional economic development planning activities
- 2.1.2 Support organizations working on economic and community development
- 2.1.3 Participate in neighborhood community development projects.
- 2.1.4 Develop a neighborhood plan for the New Market Tax Credits (NMTC)-eligible census tract

Policy 2.2 Work with state entities and private providers to increase access to affordable business infrastructure

Actions:

- 2.2.1 Identify potential business opportunities along existing railroad spurs
- 2.2.2 Identify utility and access constraints for parcels in the Industrial districts

Policy 2.3 Support access to high-quality, affordable, appropriate child-care services in Brattleboro so that parents may participate in education, training, and employment opportunities.

Actions:

- 2.3.1 Provide information to child-care providers about resources to help grow their business

The purpose of economic development is to ensure a thriving community capable of supporting a range of high-quality public services, community development programs, social services, and municipal infrastructure. Brattleboro wants to retain existing businesses and attract new business activity. Additional business growth can provide additional tax revenue, potential employment for town residents, and growth opportunities for other town businesses. The more the grand list grows, the less the Town has to tax each property owner to raise the same amount of money.

The level of economic activity in Brattleboro is a function of the existing resident population, the total number and type of jobs located here, and the level of regional activity (i.e., education, housing, services, etc. located in Brattleboro). State law requires all municipal plans to include an economic development element that describes present economic conditions and the location, type, and scale of desired economic development, together with policies, projects, and programs necessary to foster economic growth. State planning law was amended in 2003 to add a goal addressing child-care provision—demonstrating how the plan will support the financing, infrastructure, business support, and workforce needs of child-care providers.

This chapter focuses on how we can make the most of our present and future opportunities. Brattleboro has many prominent place-based assets that can contribute to a high quality of life and thus make the town attractive to small- to medium-size business enterprises and relocating households. These include:

- **Vibrant downtown:** Our well-preserved historic downtown overlooking the Connecticut River links us to our industrial past, and offers fresh opportunities for work-live space, unique retail and restaurant experiences, and an impressive number of cultural institutions.
- **Walkable neighborhoods:** Within 1.5 miles of downtown there are several distinctive neighborhoods with a variety of housing types within easy walking distance of schools, stores, employment, and the outdoors.
- **Rich arts and cultural offerings:** Brattleboro has a variety of festivals, gallery spaces, live performance venues, and arts education, including the New England Youth Theater, River Gallery School of Arts, Vermont Jazz Center, and New England Center for Circus Arts
- **Plentiful outdoor recreation opportunities:** Stunning natural beauty and the working landscape have been preserved through careful land stewardship. A multitude of public access trails on privately held conserved land, the Connecticut and West Rivers, and the Whetstone and Crosby Brooks provide abundant opportunities for individuals, families, and groups to enjoy outdoor recreation year round.
- **Gateway to Vermont:** Brattleboro is the first town in Vermont encountered by travelers approaching from the south on either I-91 or Amtrak rail, and from the east (over the Connecticut River) on State Route 9. Located at the intersection of a major east-west road (Rte. 9) and north-south interstate highway (I-91) Brattleboro is a 3 1/2 hour drive from New York City and is within 2 1/2 hours from Boston. The region is serviced by Amtrak rail and Bradley International airport (1 1/2 hours south of Brattleboro). This places us on the outer edge of the northeastern megalopolis (Boston to Washington DC) which represents approximately 14.5% of the national population¹ and the second biggest market area in the U.S.
- **Strong local agriculture:** As discussed in more depth in Chapter 4 “Agriculture,” Brattleboro has a growing local food system that is creating jobs and providing new markets for local producers.

Ensuring that our community remains welcoming and attractive to new business enterprises and households, and supportive of all existing residents and businesses, will require continued commitment to improving our quality of life, communications, and transportation infrastructure. The 2013 Town Plan process included an external review of the four commercial districts in Town (downtown, Exit 1 Canal St, West Brattleboro, and Putney Rd) to guide the changes in land development for these districts. The overall aim has been to encourage high-quality development that meets contemporary standards and market needs while preserving Brattleboro’s regional center function.

Two other districts have a prominent role in present and future economic activity; the industrial districts and the New Market Tax Credits (NMTC)—eligible census tract (which takes in part of downtown and the southern residential,

commercial, and industrial districts).

The program attracts investment capital by permitting individual and corporate investors to receive a tax credit against their Federal income tax return when they make equity investments in specialized financial institutions. The NMTC statute requires that investments be located in census tracts where the individual poverty rate is at least 20% or where median family income does not exceed 80% of the area median.

The housing market is an important gauge of economic activity in town, and provision of adequate housing is a necessary prerequisite for business growth. These issues are covered in more detail in the Chapter 6 “Housing.”

Location remains an important factor in determining business enterprise success. Using occupation and industry data, we can identify higher-than-average concentrations of certain skilled workers and the industries that employ them (i.e., food processing) as industry clusters (a critical mass of enterprises and institutions in related fields employing skilled workers). Contemporary economic development practice develops strategies to spur industry cluster growth. The Town, region, and state can benefit by pursuing coordinated policies to develop industrial clusters.

Brattleboro participates through the Southeast Vermont Economic Development Strategy in the Comprehensive Economic Development Strategy (CEDS). The CEDS is a program of the federal Economic Development Administration (EDA), which involves a broad array of stakeholders (business, education, government, social services) in developing policies that foster entrepreneurship, capacity building, and productivity. Such policies can then be supported through targeted EDA investments in infrastructure development, capacity building, and business development so that private investment is encouraged and higher skill, higher wage jobs are created.²

CURRENT CONDITIONS

Within the U.S., most of the growth in population and economic activity has occurred outside the Northeast and New England. This pattern was well established by the mid-1970s and has only slowed since the Great Recession (2007–2009), when household mobility plummeted due to the residential real estate crash. Residential mobility is negatively impacted by homeowners with negative equity in their homes, and increases with mortgage defaults. Nationally, the level of residential mobility in 2009 was the lowest since the Census Bureau began collecting this data in 1948.³ This trend suggests the number of households able to contemplate moving to Brattleboro, or away from Brattleboro, is now lower. Slower population growth and loss of residents to other parts of the country in the past decade present serious challenges for New England in terms of recovering from the recession and in the longer term being able to sustain the current number of jobs once those currently aged 55–64 retire. It is predicted that New England may have the largest shortfall of workers in the country (while yet other regions will continue to experience a surplus of workers).⁴

The demographic profile for Brattleboro shows very little population growth (4.5% increase over 40 years, with very little increase since 2000). This pattern is somewhat unusual when compared to surrounding towns (in NH, MA, and VT) and the state. Brattleboro’s population base has aged over time, with the share of working-age people and school children declining between 2000 and 2010 (Brattleboro’s median age is 42.3 years; Windham County’s is 43.2 years—both slightly higher than the state at 41.5 years). In broad terms, most of the population gains at the state level have been in communities in the Northwest and Central part of the state. Vermont is one of the oldest states in the country; its population profile can be readily explained by its northern climate and rural nature. National patterns reveal a general pattern of aging but also stronger long-term population growth in large metropolitan areas and warmer climates. Consistent with trends observed across northern New England and rural parts of the country, young people raised in Brattleboro have increasingly found economic

opportunity in more populous and faster growing areas out of state. Brattleboro's static population profile may be explained by the gradual transition away from manufacturing to the service sector (contributing to outmigration) and the fact that the housing stock in surrounding communities coincides more closely with current consumer preferences. Long-term residents and new arrivals often prefer more rural residential settings while commuting to Brattleboro for employment, education, and access to services (this is suggested by the steady population growth in surrounding towns and commuter data). The effective age and condition of many homes in Brattleboro may also contribute to households choosing to live in newer homes in smaller communities surrounding Brattleboro. Additional housing data can be found in Chapter 6 "Housing."

Labor Market Area Profile

Unemployment in Windham County was at 2.9% in November 2017 (compared to 2.7% for VT) this figure taken together with our age profile suggests limited economic opportunity here for those of working age.⁵

Many factors such as our role as a regional center, type and quality of housing stock, and opportunities for advancement (education, training, and employment) help explain the presence of persistent poverty in our community. Employment trends are generally observed through changes in the occupational composition of the "covered employment" measure collected at different geographical scales. The data is collected from employers who make contributions to unemployment insurance for each "covered" position. Approximately 98% of all jobs in the U.S. conform to the definition of 'covered employment'⁸. The main categories of employment not included in this collection are the self-employed, railroads, and small-scale agriculture activities.⁹

As shown in Table 2.1, Brattleboro had 11,096 jobs in 740 different establishments in 2016. Between 2010 and 2016, the number of manufacturing establishments increased by 7.9% and there was a 15.8% increase in manufacturing jobs.¹⁰ Of the manufacturing enterprises present in the region, several are headquartered here; this offers an important opportunity to work with business owners to ensure both their success and continued growth in Brattleboro and the wider region.

Table 2.1: Brattleboro Covered Employment and Wages

INDUSTRY	ESTABLISHMENTS		EMPLOYMENT		TOTAL WAGES		AVERAGE WAGE	
	2016	% change from 2010	2016	% change from 2010	2016	% change from 2010	2016	% change from 2010
Total covered—all ownerships	740	-1.6	11,096	1.6	\$466,232,000	14	\$40,020	12.2
Private ownership	708	-1.3	9,940	2.8	\$416,275,928	15.6	\$41,878	12.4
Goods producing	84	1.2	1,908	18.9	\$100,108,934	37.4	\$52,470	15.6
Natural resources, mining	4	100	120	(c)	\$7,141,023	(c)	\$59,674	(c)
Agriculture, forestry	3	50	(c)	(c)	(c)	(c)	(c)	(c)
Construction	40	-7	316	(c)	\$16,029,660	(c)	\$50,767	(s)
Manufacturing	41	7.9	1,473	15.8	\$76,938,251	33	\$52,250	14.9
Wholesale trade	45	18.4	788	-17.6	\$37,511,235	-9	\$48,184	10.4
Retail trade	106	-12.4	1,406	2.9	\$41,523,010	19.8	\$29,536	16.4
Transportation and warehousing	9	-18.2	198	(c)	(c)	(c)	(c)	(c)
Publishing industries, except Internet	9	0	58	-45.3)	\$2,593,966	-23.2	\$45,047	41.2
Broadcasting, except Internet	3	0	28	12	\$740,835	1.3	\$26,224	-10.3
Telecommunications	3	-25	(c)	(c)	(c)	(c)	(c)	(c)
Finance and insurance	27	-10	400	-11.3	\$24,115,218	-6.8	\$60,276	5.2
Real estate and rental and leasing	31	6.9	171	-4.5	\$6,770,935	9.2	\$39,538	13.9
Professional, business services	109	7.9	652	4.5	\$31,961,677	-0.7	\$49,015	-5.1
Education, health services	131	10.1	2,917	13.9	\$131,179,277	29.3	\$44,963	13.6
Arts, entertainment and recreation	16	77.8	86	7.5	\$1,573,466	28.5	\$18,332	20.4
Accommodation and food services	74	-11.9	1,022	3.8	\$18,861,648	26.5	\$18,448	21.8
Other services, except public administration	60	-15.5	306	-19.9	\$8,525,217	-3	\$27,845	21.1
Government	32	-8.6	1,155	-8	\$49,956,072	2	\$43,236	10.9

(c) Data is confidential

Source: Covered Employment and Wages for Town of Brattleboro, Base Time Period 2016, Change from 2010, Covered Employment, ELMI Data Tools, Economic and Labor Market Information, Information Center, website of the Vermont Department of Labor, available at www.labor.vermont.gov/Default.aspx.

Brattleboro's Role as Regional Hub

The broad provision of regional public services in education, health, social services, and retailing contributes strongly to Brattleboro's employment base. Brattleboro's regional center function is illustrated by occupational clusters (job categories). Here the significance of the Brattleboro Retreat can be observed; the **Health Care and Medical Science (Therapy, Counseling, and Rehabilitation)** cluster accounts for 3.6% of all employment.⁸ Brattleboro is established as a center for healthcare in southern Vermont, a rapidly growing sector nationwide. Medical employment offers many higher-wage and skilled job opportunities in an industry that brings few environmental impacts to a community. **Primary/Secondary and Vocational Education** is another regional activity strongly represented in Brattleboro. It is important to view the occupational and industry data together to verify the existence of industry clusters and potential for growth.

Brattleboro is part of a three-state region, and while state policies (i.e., taxes, access to education, social services) may influence discrete business and household decisions, it is also true that Brattleboro's success depends on growth in the broader region. So while competition for new residents, customers, workers, and federal support exists, there is scope for fostering a regional identity, crossing state boundaries and cooperating to deliver real benefits to all businesses and residents of the region. Examples of cross-border regional cooperation can include lobbying for rail transportation enhancements, construction of a new bridge between Brattleboro and Hinsdale, NH (on VT route 119), maintaining and extending municipal and emergency services mutual aid, and supporting higher education institutions that service the three-state region. Each community can pursue growth strategies that capitalize on its unique combination of assets, while producing community development outcomes that enhance the quality of life for all residents of the region.

Child Care

Given the high proportion of working parents in Brattleboro and Windham County, the availability of affordable, quality child care is important to the economy. As of December 2017, there were 15 registered home and licensed providers operating in Brattleboro, according to the Vermont Department of Children and Families [Bright Future Child Care Information System](#). This database included 13 registered home child-care providers, generally offering care for infants, toddlers, preschoolers, and school-aged children. Each of the three elementary schools offers after-school programs for students. There are six preschool-only programs at licensed providers. The remaining programs are licensed providers offering infant, toddler, and pre-school programs in a facility setting.

Brattleboro's Land Use Regulations treat family child-care homes (serving not more than 6 children full-time and 4 part-time in the caregiver's own residence) a permitted use in all zoning districts. Licensed child-care facilities are conditional uses in all zoning districts. Licensed child-care homes (serving not more than 12 children in the care-giver's own residence) are either permitted or conditional use according to district. These regulations are compatible with state law.

Economic Development and Land Use

Effective land use planning is the strongest contribution this Plan can make to economic development: by seeking to provide adequate space for growth, by avoiding mismatches between development and infrastructure provision, and by ensuring that development meets community expectations.

A key insight of the Commercial Districts Study was that the Town has ample land zoned for commercial and retail activity, given the population forecasts for both primary and secondary market areas. Long-term changes in the retail sector, including the impact of online sales and the opening of a Walmart Super Store in nearby Hinsdale, NH, reduce the likelihood of large-scale retail development in Brattleboro.

The 2015 Land Use Regulations focus future growth along a north-south axis with the intent that (re)development of these commercial and mixed-use areas will increase. Traditional residential neighborhoods adjacent to downtown may also attract a degree of redevelopment, resulting in greater densities while achieving well-accepted “smart growth” goals and reducing exposure to future flood damage along the Whetstone/Rte. 9 corridor.

One factor that could limit build-out of existing commercial and industrial districts is the adequate provision of water and sewer. Industrial districts to the north and south must have these essential services in place to encourage rational development. The new Waste Water Treatment Plant provides for private commercial and industrial development throughout town. It will be important to ensure, through forward planning, that enterprises located in industrial and commercial districts can connect to this system and potable water.

A long-term goal of land use planning is to promote growth in land values consistent with the community’s broader goals. This plan seeks to promote local economic growth in the commercial and industrial areas of town, thus reducing the burden of property taxes falling on residential tax payers.

Community Development

Community development is an important goal of economic development. There is a relationship between the economic conditions in a community and other community elements such as housing, education, and poverty. Through capacity building and learning and engagement, community development seeks to strengthen communities and improve economic opportunity and social conditions.

An example of a community development agency is Southeastern Vermont Community Action (SEVCA). SEVCA serves low-income people in Windham and Windsor counties. It was founded on the belief that poverty need not be a permanent condition and that: (1) people can be empowered to rise out of poverty, and (2) the strength of communities is measured by the quality of life of everyone in them. SEVCA offers a wide range of programs to address a variety of poverty-related needs including but not limited to housing, education, economic development, energy, family support, and crisis intervention.

Brattleboro has a long tradition of providing essential services to a rural region in the fields of education, health, emergency services, and affordable housing. When other factors, including housing stock and access to public transportation, are accounted for, it is apparent that Brattleboro as a community has a large proportion of people in need who access these services. Many of the institutions delivering these services have long and proud histories and depend on local community support through tax relief, volunteer involvement, and direct fundraising. Sustained growth and wealth generation is needed so that these institutions can fulfill their missions and treat residents and clients with dignity.

Demographic data also reveal that poverty is increasing in Brattleboro. Fully 18% of those under age 8 are in poverty. All of the elementary schools have two-thirds of the school population receiving free or reduced price lunch (high school participation is lower due to the stigma). In the census tract eligible for New Market Tax Credits (NMTC) the median family income is \$41,293 or 65% of the state median family income (\$62,982); the eligibility threshold is 80%. Other neighborhoods outside this tract also exhibit extreme hardship. All these residents are more likely to endure increased exposure to other risks such as environmental hazards (indoor air quality, flood, etc.) due to limited choices. One strategy to expand the target populations’ opportunities is to utilize Asset Based Community Development (ABCD) initiatives. It may be more effective to develop collaborations between Community Development Organizations (CDOs) and the Town to achieve these goals.

Because Brattleboro has an aging population and significant levels of hardship in the community, it is important to pursue strategies that will increase the population—especially of younger households. By increasing the population and the level of economic activity, we can broaden the burden currently placed on

residential property taxpayers to support the Town's services and facilities, and still meet commitments to support CDOs and other social service agencies. The demographic profiles of neighboring communities reveal divergent trends (Bennington and Greenfield have lost population over the past 20 years; Keene has gained population.). A population growth target of over 1.5% by the Census of 2020 is attainable.

FOOTNOTES

¹ See "Age and Sex Composition," www.census.gov/prod/cen2010/briefs/c2010br-03.pdf, (U.S. Census Bureau, May 2011); "Population Distribution and Change," www.census.gov/prod/cen2010/briefs/c2010br-01.pdf (U.S. Census Bureau, March, 2011).

² Code of Federal Regulations, (CFR), chapter 3, part 300.1. Franklin County, MA, and Cheshire County, NH, are both implementing CEDS.

³ Fernando Ferreira, Joseph Gyourko, and Joseph Tracy, Housing Busts and Household Mobility, (Federal Reserve Bank of New York Staff Reports, no. 350, October 2008). "Residential Mover Rate in U.S. is Lowest Since Census Bureau Began Tracking in 1948," press release, (United States Census Bureau Newsroom, April 22, 2009).

⁴ A. Modestino, Mismatch in the Labor Market: Measuring the Supply of and Demand for Skilled Labor in New England, New England Public Policy Research Center, Research Report 10-2 (Federal Reserve Bank of Boston, November 2010).

⁵ See <http://www.vtmi.info/laus.pdf> December 2017 Local Area Unemployment Statistics, VT Department of Labor, VT

⁶ See www.bls.gov/cew/.

⁷ See VT Department of Labor, www.vtmi.info/faq.cfm.

⁸ See www.statsamerica.org/innovation/anydata/. Using a combination of 2007 and 2010 data comparing Windham County (the smallest geographical unit available) to State data on Establishments by NAICS category and Occupations by NAICS category.

3 | Energy

Goals

- A. Reduce greenhouse gas emissions 40 percent from 1990 levels by 2030.
- B. 25 x 25 – 25 percent in state renewables supply for all energy uses by 2025. 25 percent of homes made efficient by 2025

Policies and Actions

Policy 3.1 Measure municipal energy use so that elected officials, community leaders, and consumers can make informed decisions and celebrate meaningful progress in energy reductions

Actions:

- 3.1.1 Report annually to the Selectboard on progress toward energy reduction goals for municipal and school buildings and operations
- 3.1.2 Review the Town Procurement Policy Manual to ensure energy conservation and efficiency are key purchasing criteria
- 3.1.3 Encourage the improved energy efficiency of municipal and school district buildings and operations, by means such as converting street lights to LED fixtures

Policy 3.2 Assist energy consumers to make the most informed choices about their energy consumption, including incentive programs for energy conservation and efficiency

Actions:

- 3.2.1 Organize participation in programs to increase energy efficiency and renewable energy use in homes and commercial buildings
- 3.2.2 Promote use of the Community Energy Dashboard to monitor energy usage and celebrate successes

State statute requires that the Planning Commission consider energy through required goals and elements. Under Chapter 117, the energy element of a Town Plan must include:

- An analysis of energy resources, needs, scarcities, costs, and problems within the municipality
- A statement of policy on the conservation of energy, including programs, such as thermal integrity standards for buildings to implement that policy
- A statement of policy on the development of renewable energy resources
- A statement of policy on patterns and densities of land use likely to result in conservation of energy

Taken together, these requirements focus on measuring and analyzing current supply and distribution, current demand, and existing and proposed commitments to energy conservation and renewable energy sources. The purpose is to minimize exposure to any potential future energy shocks, while reducing the environmental impacts associated with fossil fuel use. Regrettably, the lack of accurate data at the municipal level (particularly for energy sources other than electricity) makes meaningful analysis difficult.

Energy production, distribution, and consumption are overwhelmingly undertaken through market mechanisms that are mostly regulated through the VT Public Utilities Commission (PUC) and/or federal agencies (i.e., the Nuclear Regulatory Commission [NRC] and Federal Energy Regulatory Commission [FERC]). The most recent Comprehensive Energy Plan (CEP) prepared by the VT Public Service Department (PSD) released in January 2016 under VSA Title 30. The CEP includes analysis and state-level projections for usage, supply, cost, and environmental effects for all sectors of energy usage: electricity, thermal energy, transportation, and efficiency. The CEP makes recommendations for state implementation through legislation and regulation that cover both public and private activity. The CEP draws on data from the federal Energy Information Administration (EIA). Because of the central role of energy in all aspects of life, there are many interconnections between energy use and planning, including land use, natural resources, transportation, and even public health. Many of these interconnections are explained through education and outreach, advocacy, identifying opportunities for collaboration, and support of private and nonprofit initiatives. Brattleboro has a strong record in many of these areas.

In 2009, the Town's Energy Committee was formed; currently they sponsor and organize workshops, provided free energy assessments, support business and home weatherization projects through finance mechanisms, such as PACE, and conduct renewable energy workshops. They are also investigating solar-electric arrays on municipal properties, have established an online gallery of renewable energy homes

Energy Use

Many factors influence energy demand, including population patterns, the growth and structure of the economy and travel patterns of residents and visitors of the area in question.¹ Broadly, the aim of the energy element required of VT Town Plans is to achieve reductions in fossil fuel energy use through efficiency measures (controlling demand) while increasing the supply of renewable energy sources, without negatively impacting social and economic activity. This section primarily relies on state-level data collected by the Public Service Department (PUC) on energy use, production, and distribution.

Energy Use in Brattleboro Schools and Municipal Facilities

The Town and the Windham South East Supervisory Union (WSESU) have implemented conservation and efficiency measures thus contributing to the overall reduction in electricity use in Brattleboro. Table 3.1 compares Energy Use in the municipal and school buildings and facilities in 2000 and 2015.

Table 3.1: Energy Use: Brattleboro Municipal and School Buildings and Facilities

(Million BTUs/calendar year, fuel and electricity combined)

Facility	MMBTU 2000	MMBTU 2010	MMBTU 2015	% Change
Brooks Memorial Library	1,509	1,089	1,336	-12
Central Fire Station	834	782	N/A	
Gibson-Aiken Center	2,320	1,567	2,050	-12
Skating Rink	2,049	1,894	1,611	-21
Municipal Center	3,228	2,124	2,449	-25
Public Works Garage	1,737	1,125	1,065	-39
Water Treatment Plant	2,364	1,633	2129	-10
Wastewater Treatment Plant	9,736	6,924		-29
West Brattleboro Fire Station	364	311	N/A	-15
Town streetlights	2,809	2,381		-15
Academy School	2,605	2,064		-21
Canal Street School	630	1,378		54
Esteyville School	206	147		-29
Green Street School	2,544	1,536		-40
Oak Grove School	2,421	1,382		-43
Powers House	485	300		-38
Brattleboro Union High School	9,832	10,806		9
Total	45,673	37,443		-18

Sources: CVPS, Barrows & Fisher Oil Company, Suburban Propane, Merrill Gas Company; compiled by Brattleboro Climate Protection and

The Town’s vehicle fleet experienced a 22% increase in energy used from 2000 to 2010 (see Table 3.2). The energy used by the town fleet is wholly based on fuel usage. Factors that can influence fuel usage include the number of vehicles, their fuel efficiency, and the number of miles traveled.

Table 3.2: Energy Use: Town Fleet

	MMBTU 2000	MMBTU 2010	MMBTU 2015	% Change
Town fleet	7,113	9,055		22

Source: Brattleboro Public Works Department, 2010

ENERGY SOURCES

Two-thirds of all energy used in Vermont is devoted to transportation and heating and, thus, is almost entirely provided by fossil fuels. States do not have strong regulatory control over the supply of gasoline, fuel oil, or liquid petroleum gas (LPG). Supplies of these energy sources are subject to price volatility and potential disruptions at the global, national, and regional levels. The focus of the CEP is on electricity and renewable energy sources.

Siting Renewable Energy and Local Impacts

As with any other land use, the installation of renewable energy generation may have adverse impacts on property abutters, a neighborhood or an established community amenity – such as a view or area of undisturbed open space. Under existing state permitting arrangements, when property owners install renewable energy systems

that that exceed 15 Kwh, they seek a certificate of public good from the PUC. Under Act 174 (2017) municipalities must adopt energy plans that meet specific goals for conservation, efficiency and GHG reductions in order to obtain 'substantial deference' in PUC proceedings for renewable energy permits.

Brattleboro encourages the installation of renewable energy generation systems, although it should be recognized that visual impact of solar arrays, smoke and particulate releases from wood burning appliances, and hazards associated with wind turbines all constitute nuisances typically addressed through local zoning measures. As a community Brattleboro has been supportive of large scale solar electricity generation and woodchip fueled boilers for large facility heating.

The accompanying maps describe in very general terms the constraints and potential for renewable energy development in Brattleboro.

ENERGY CONSERVATION AND EFFICIENCY

The local approach to reducing energy intensity has been through the work of the Energy Coordinator and Energy Committee. In 2009, the Selectboard appointed the first Brattleboro Energy Committee and continued to support the Town Energy Coordinator.

The age and condition of much of Brattleboro's housing stock (see Chapter 6 "Housing") makes achieving ambitious goals for thermal performance of residential structures challenging. Brattleboro residents have taken advantage of a long-term commitment to weatherization projects by the Energy Coordinator and Efficiency Vermont, reducing energy use and greenhouse gas (GHG) emissions; this will need to continue. Increasing educational and employment opportunities in town may also reduce the need for existing residents to drive out of town to gain access to these necessities.

Energy and Transportation

Estimates derived from the US Census Community Survey depending on sampling the population have been used to derive estimates of car ownership and mileage traveled in Brattleboro (see tables 3xx). Reliable data is not available for calculating vehicle use (vehicle miles traveled; VMT) by Brattleboro residents and businesses, nor the VMT by residents of surrounding towns accessing Brattleboro as a regional center for employment, schooling, medical services, retail, or cultural events.

Table 3.3: Town Car and VMT Estimates

Number of estimated cars	9,550
Estimate of average number of miles traveled by cars	12,500

Source: email from Marion Major, Windham Regional Commission on April 28, 2017

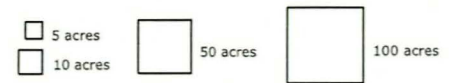
The major concern associated with energy consumed by transportation is that it comprises 36% of the GHG emissions (see Figure 3.3).

Town of Brattleboro Known Constraints for Energy Generation *

* - as defined by Vermont's Act 174

- Vernal Pools
- Class 1 and 2 Wetlands, VSWI
- DEC River Corridors and/or FEMA Floodways
- National Wilderness Areas
- State-significant Natural Communities and Rare, Threatened, and Endangered species

Some features are shown slightly larger than their actual size to improve visibility on this small-scale map.

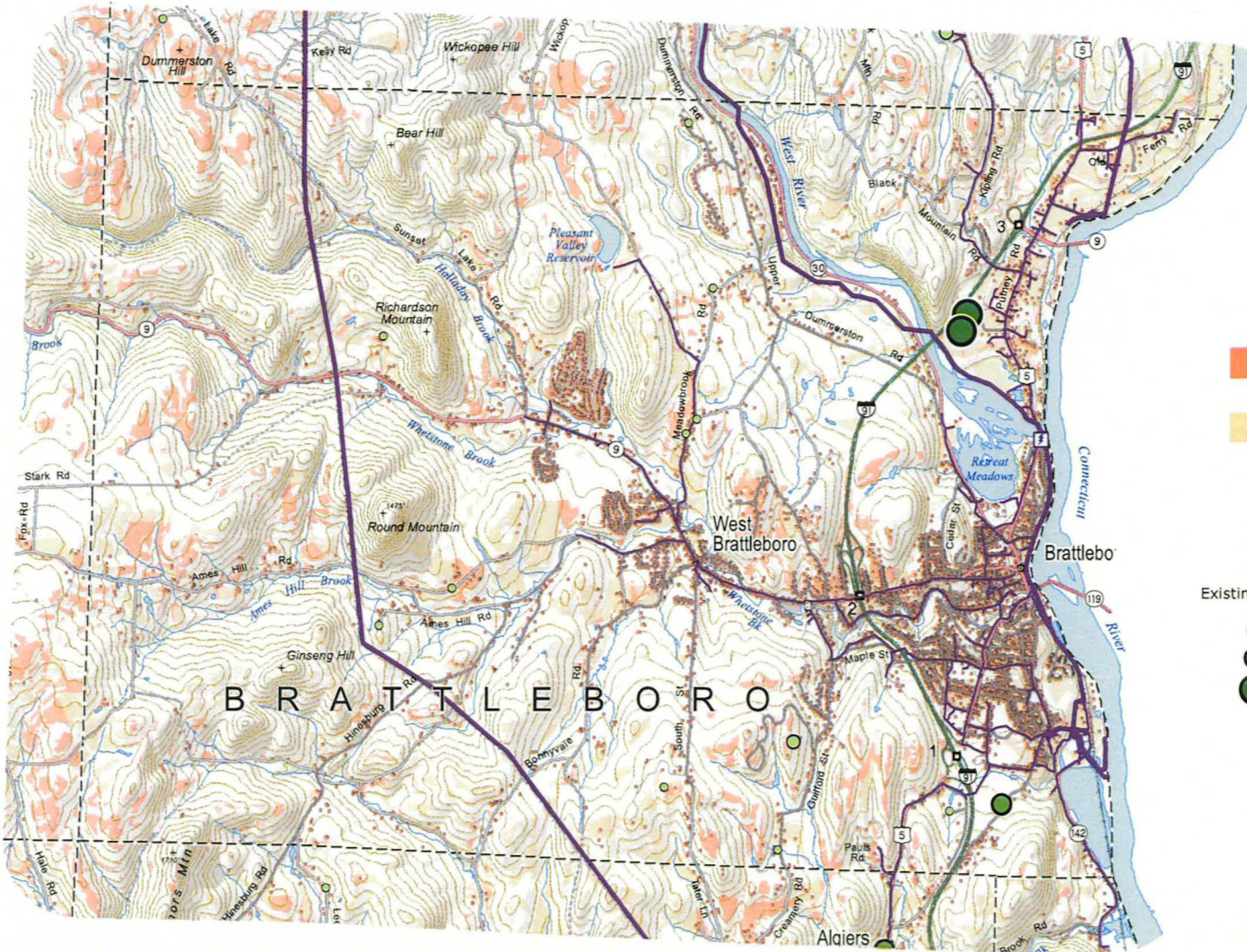


B R A T T L E B O R O

April 2017

map by Windham Regional Commission, Brattleboro, Vt.
April 2017; u:\GIS\projects\Energy\maps\Town_Constraints-known_11x17.mxd

Town of Brattleboro Solar Energy Potential



- Prime Solar Energy Resource**
generally adequate solar resources and no identified constraints (i.e., no "known" and no "possible" constraints)
- Secondary Solar Energy Resource**
generally adequate solar resources and no "known" constraints, but at least one "possible" constraint

"known" and "possible" constraints are identified by the Vt. Public Service Department in their Act 174 Energy Planning Standards

Note: prime vs. secondary solar energy resource is NOT based on solar intensity.

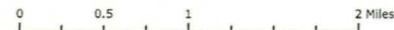
Existing solar installations:

- 1 - 19 kW (generally smaller-scale on-site)
- 20 - 70 kW (residence, farm, school, or business)
- 140 - 150 kW (generally larger-scale commercial/utility solar farms)
- 360 - 2000 kW

Existing solar installations from the Vermont Energy Atlas, developed from Certificates of Public Good; they may correspond to the address of the certificate holder and not the actual location of the installation.

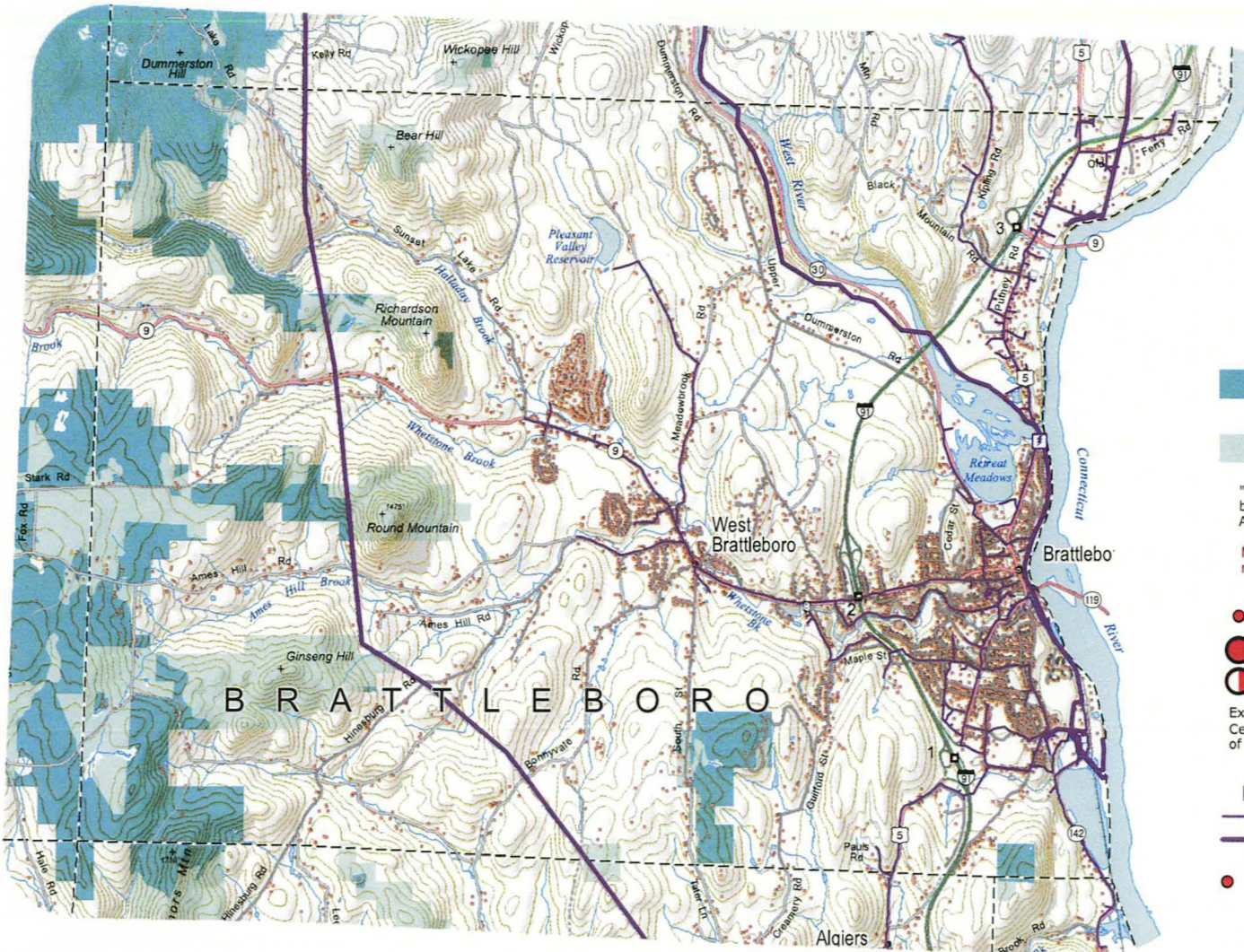
- Substations
- 3 Phase Power Lines
- Transmission Lines

- 5 acres
- 50 acres
- 100 acres



April 2017

Town of Brattleboro Wind Energy Potential



Prime Wind Energy Resource
generally adequate wind resources and no identified constraints
(i.e., no "known" and no "possible" constraints)

Secondary Wind Energy Resource
generally adequate wind resources and no "known" constraints,
but at least one "possible" constraint

"known" and "possible" constraints are identified
by the Vt Public Service Department in their
Act 174 Energy Planning Standards

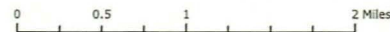
**Note: prime vs. secondary wind energy
resource is NOT based on wind speed.**

- Existing Small Wind
- Existing Commercial Wind
- Commercial Wind In Development

Existing wind from the Vermont Energy Atlas, developed from
Certificates of Public Good. They may correspond to the address
of the certificate holder and not the actual location of the installation.

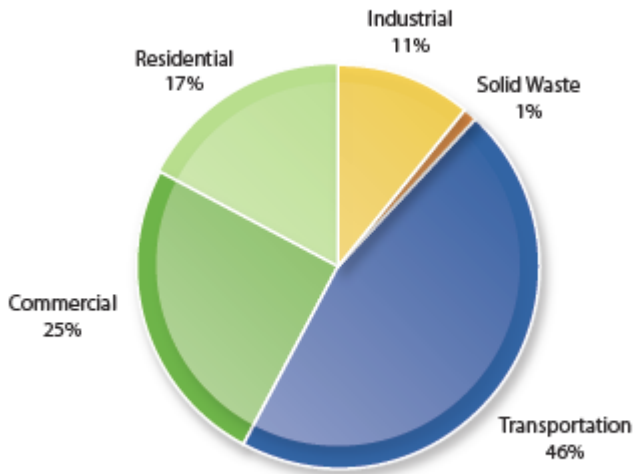
- Ⓛ Substations
- 3 Phase Power Lines
- Transmission Lines

- Existing Small Wind
existing wind from the Vermont Energy Atlas,
developed from Certificates of Public Good



April 2017

Figure 3.3: 2010 Greenhouse Gas Emissions by Sector



Source: 2010 Brattleboro Greenhouse Gas Emissions Inventory, Brattleboro Climate Protection and Brattleboro Energy Coordinator 2010

The Town has reviewed its fleet needs and worked to improve efficiency through reviewing operations and replacing existing vehicles with more fuel-efficient vehicles where applicable. The major motivation is reducing operating costs.

Park and Ride lots are a tool to increase carpooling; lots are designated and signposted (with online maps showing their locations). Park and Ride facilities are intended to encourage bicycle use by connecting to the in-town bus service (buses are fitted with bike racks), thus reducing overall car use. There is a Park and Ride lot at the Book Press lot on Brown Court (off Putney Rd).

Brattleboro has two EV chargers located in the Parking Garage and two in the Highgrove lot. In accordance with state statute the new police station on Black Mtn. Rd also has two EV chargers installed.

Energy and Land Use

Brattleboro has a compact core (roughly bounded by the West River to the north, the Connecticut River to the east, and I-91 to the west) with a narrow corridor of development along Rte. 9 to the west. Given the very stable population of Brattleboro, there has been little obvious sprawl in the past 20 years. However, as is common in the Northern New England region, very low-density sprawl in semirural and rural settings persists.

In Chapter 12 “Land Use,” future land use is addressed in terms of enhancing a walkable community through compact development, and preserving the working landscape, which is a natural and scenic amenity. These objectives conform broadly to smart growth principals, and are consistent with energy-wise land use planning. The Land Use Regulations adopted in December 2015 incorporate many strategies to enhance the core developed neighborhoods of Brattleboro, while sustaining the rural character of rural and rural residential districts

FOOTNOTES

¹ Comprehensive Energy Plan (CEP), VT Department of Public Service, (December 2011).

4|Agriculture

Goals

- A. Preserve the land and other environmental resources critical to the long-term success of the local agricultural economy
- B. Maintain and enhance the local agricultural sector and its capacity to respond to market trends in agriculture
- C. Build public support for the community's farms and farmers, and promote, protect, and assist agriculture as a functional sector of the local economy

Policies and Actions

Policy 4.1 Improve access to viable and affordable agricultural land

Actions

- 4.1.1 Support the efforts of the Vermont Land Trust, Vermont Housing and Conservation Board, Earth Bridge Land Trust, and other farmland conservation organizations to preserve farmland
- 4.1.2 Create an agricultural lands inventory that provides information on soil type, current land use, and food production

Policy 4.2 Maximize opportunities for local producers to access necessary equipment to support their farm operations

Actions

- 4.2.1 Amend the policies governing the Agriculture Land Protection Fund to allow it to be used for projects that enhance the viability of farming

Policy 4.3 Implement initiatives to strengthen the community food system

Actions

- 4.3.1 Support community-led initiatives to strengthen the food system, including the development of necessary infrastructure, such as dry and cold storage, commercial food-processing kitchens, distribution outlets, slaughterhouses, and community gardens

Agriculture is valued as working open land and for its intrinsic contribution to Vermont’s environment, community character, health, history, culture, economy, and quality of life. State Planning Statute requires town plans to strengthen agricultural industries. Planning for agriculture involves coming up with strategies to protect the long-term viability of agricultural lands, encouraging locally grown food products, and supporting other activities to make farming a successful economic enterprise.

By discussing agriculture in a stand-alone chapter of the Town Plan, Brattleboro is making a strong statement about its importance to the community—both for its economic potential and its cultural value. The working landscape affords Brattleboro the opportunity to strengthen its food, energy, and economic future, and to attract new residents who value this lifestyle.

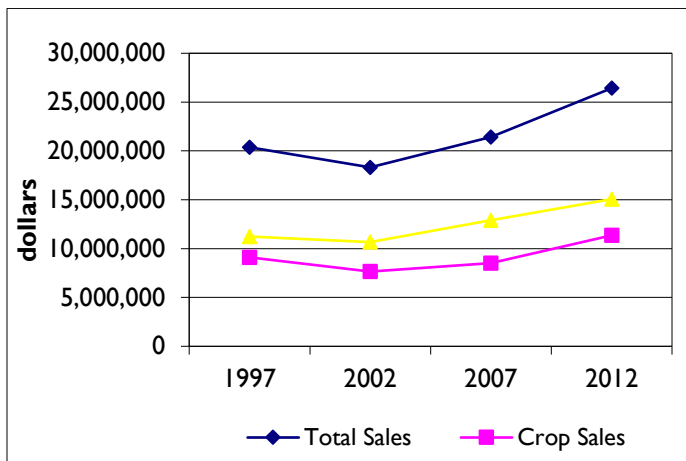
CURRENT CONDITIONS

Agricultural Data

The most recent data available for local agricultural conditions is from the 2007 U.S. Census of Agriculture. Local data is collected by zip code. The Brattleboro zip codes include parts of Guilford, Dummerston, and Marlboro. In 2007, there were 108 local farm operations. The majority of farm operations (64%) were owned by the farm operator. Agricultural activity in Brattleboro is primarily concentrated in West Brattleboro.

The local farming community is comprised of smaller, diversified farms. Operations include vegetables, fruits and berries, corn, maple syrup, hay, Christmas trees, horticulture, poultry, cattle, dairy, sheep, goats, and hogs. Of the 63 cropland farm operations accounted for in the 2007 Agriculture Census, 53 were smaller than 50 acres.

Figure 4.1: Windham County Agricultural Sales, 1997–2012



Source: U.S. Department of Agriculture, Census of Agriculture, County Summary Highlights, 1997, 2002, 2007, 2012

Figure 4.1 shows the agricultural sales in Windham County from 1997 to 2012. At the County level, farms experienced an 8% increase in sales from 2002 to 2007. The market value of products sold increased from \$18,321,000 in 2002 to \$26,425,000 in 2012, above the rate of inflation. In 2012, the market value of crop sales accounted for 43% of products sold, while livestock sales accounted for 57%.

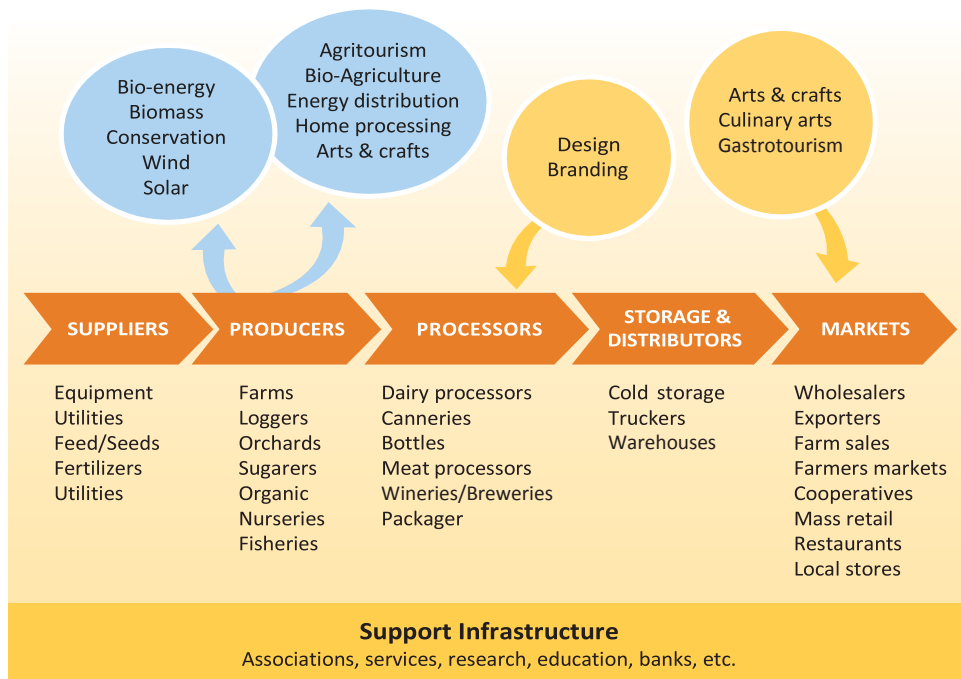
Throughout Vermont, direct sales from farms to consumers are increasing. The USDA’s 2015 Local Food Marketing Practices Survey ranks Vermont 7th out of all states. Farmstands, community-supported agriculture entities (CSAs), and farmers’ markets, as well as programs such as Farm to School and Vermont Fresh Network, are assisting

farmers in growing direct sales.

Agriculture and the Economy

Statewide, Windham County’s production of fruit, particularly apples, is an important contributor to the state’s agricultural economy. Despite ranking 9th out of Vermont’s 14 counties for the market value of agricultural products sold in 2012, Windham County ranked 2nd both for vegetables and for fruit and berries. Vermont’s top agriculture commodities include dairy products, cattle and calves, maple products, greenhouse/nursery, and apples. It is important to note that Vermont’s agricultural products comprise a very small percent of total U.S. output, with the exception of maple syrup where Vermont is the largest producer. The saw log market is strong in Windham County; forestry accounts for a significant portion of our working landscape, and is a large employer in Brattleboro (Cersosimo Industries and Allard Lumber).¹

Figure 4.2: Sustainable Food Systems Cluster



Source: Regional Technology Strategies, Growing Jobs, Vermont-Style: Skills and Knowledge for Vermont’s “Sustainable Food System Cluster” and Natural Resources (Vermont Department of Education, 2010, p. 12). Verdana Ventures, Farm Energy Innovation in Vermont: A Report to the Vermont Sustainable Agricultural Council (Randolph, 2008).

When measuring the significance of agriculture to the economy, it is important to consider farms in a broader context. The listening tour conducted by the Council on the Future of Vermont (2007–2009) revealed that Vermonters feel that agriculture and forestry are essential to the State’s character and working landscape, and that they are important foundations for many other external values and benefits.² Looking at agriculture as part of an industry cluster related to the food system helps to provide this broader context. The concept of industry clusters is discussed further in Chapter 2 “Economic Development.” A 2010 report to the Vermont Department of Education modified the concept of the food system cluster, reframing it as a “sustainable food system” (see Figure 4.2). Sustainable food systems and natural resources “include all of the economic activities necessary or desirable to support the production and consumption of food and plants as sources of house- hold income and business

revenue.”³Some examples of the sustainable food systems cluster in Brattleboro include:

- **Commonwealth Dairy:** a dairy processing facility accepting milk from the open market, including local and organic milk
- **Grafton Cheese:** a cheese-making facility (utilizing raw milk from Vermont farms) and retail shop,
- **Strolling of the Heifers:** an annual celebration connecting people with the farmers and producers of healthy local foods

Opportunities exist for the further development of core agricultural activities, such as dairy farming, organic produce, and forestry. Effectively targeted support of enterprises related to these sectors, in fields such as trade organizations, education and training, gastronomic tourism, renewable energy technologies (both on the farm and using crops renewable energy production), and furniture production would likely support growth in this industry sector as a whole. Long-term growth in the sector could then spur more interest in Brattleboro over time, as a destination for tourism, investment, and new families to make their home.

Agriculture Support Resources

There are a number of organizations located in Brattleboro that play a vital role in the success of local farming by providing educational and technical assistance. These include the University of Vermont Cooperative Extension, the USDA Rural Development, Natural Resources Conservation District, Windham County Farm Service Agency, and Windham County Conservation District. The Strolling of the Heifers, a locally organized nonprofit organization, offers grants to farmers for educational training and operates a microloan program for Vermont and Massachusetts farmers.

There are several organizations that help connect farmers and food producers to other markets. Food Connects is a local nonprofit that works to transform the local food system. They operate a delivery service for wholesale buyers in Windham County. The Vermont Fresh Network (VFN) helps promote partnerships between farmers, producers, and chefs so that they can work together to strengthen the local community and economy. There are several members in VFN from Brattleboro, including farms, the Brattleboro Food Co-op, producers, institutions, and chefs.

Important statewide resources for farmers include the Vermont Agency of Agriculture and the Northeast Organic Farming Association (NOFA). The Agency of Agriculture provides technical, financial, and regulatory assistance to farmers. NOFA provides educational and technical services in support of organic agriculture, local food systems, and consumer education.

The Next Generation of Farmers

Brattleboro students are exposed to local agriculture beginning at a young age. Farm to School programs support local farms, educate children about food, and provide opportunities for classroom field trips to farms. At the secondary level, the Windham Regional Career Center offers an Agriculture and Sustainable Food pathway that includes courses in forestry, land management, machine operations and maintenance, culinary arts, horticulture, contracting, and hydroponic and greenhouse operations, as well as apprenticeship opportunities. This curriculum was implemented in 2011 in support of efforts to attract more students to the field by broadening the curricula to encompass the broader thinking of agriculture and forestry as part of a sustainable food system cluster. For those pursuing degree programs, Vermont Tech in Randolph offers a wide variety of two- and four-year degrees related to agriculture, landscaping, and horticulture, and the University of Vermont offers several degree programs in their College of Agriculture and Life Sciences.

Farmland Protection

The pressure to convert farmland to nonagricultural uses in Brattleboro appears to be low overall. The population in Brattleboro has been static and residential development rates have been low. However, by preserving agricultural lands, Brattleboro continues to support traditional agriculture, and provides opportunities for newer agricultural markets such as agri-tourism and organic foods.

Land is an essential asset for farming. Therefore, it is essential to retain the land base by identifying and prioritizing key parcels for preservation. Once these critical agricultural areas are identified, efforts can be made to steer development away from them and into areas with existing infrastructure, or to marginal lands where infrastructure can be provided. The preservation of farmland was the primary focus of Brattleboro's Agricultural Advisory Committee in the 1980s and 1990s. Since that time, there has been limited agricultural land preservation and no update to the land evaluation and site assessment that was compiled back in the 1980s. Prioritizing the importance of agricultural lands allows for the coordination of farmland preservation and agricultural retention. This Plan supports the creation of an agricultural lands inventory to identify critical agricultural lands.

There are several methods/programs available to assist Brattleboro farmers in protecting their farmland:

Conservation Easements

The purchase of conservation easements has been a successful method of protecting farmland in Brattleboro. This is a voluntary program whereby local, county, or state agencies purchase the surface development rights from willing landowners. In exchange, a conservation easement is placed on the land that prohibits non-agriculture-related future development in perpetuity. Since the conservation easement dramatically limits the future uses of the property, property tax assessments take into consideration the impact of the easement on the property's value. The Vermont Land Trust holds conservation easements on 13 parcels totaling 637 acres of agricultural land in Brattleboro. Earth Bridge Land Trust has easements on 2 parcels totaling just over 136 acres. Action item 4.1.1 of this Plan supports the preservation of farmland by these organizations.

Current Use

Since 1980, Vermont's Use Value Appraisal Program (commonly referred to as Current Use) has helped to keep farm and forest land managed and in production. This program taxes farm and forest land according to use value, instead of fair market value. According to the Vermont Department of Taxes, the primary objectives of the program are to keep Vermont's agricultural and forest land in production, help slow the development of these lands, and achieve greater equity in property taxation on undeveloped land. The State of Vermont reimburses communities for municipal property tax revenue that is lost due to enrollment of land in the program. Participating landowners must pay the balance of property taxes due to the community. The program includes a Land Use Change Tax as a disincentive to develop land.

According to the Vermont Tax Department, there were 1,502.63 acres of agricultural land in Brattleboro enrolled in the Use Value Appraisal Program in Brattleboro in 2016. This amounts to 7.2% of the Town's 20,800 acres.

Town Assistance

The Town of Brattleboro established the Agricultural Land Protection Fund, a revolving loan fund, in 1983 for the purpose of purchasing interests in threatened farmland from residential, commercial, and industrial development. The Fund has been used several times since its establishment.

Farmland tax stabilization programs provide financial assistance to farmers and farmland owners through a reduction in real estate property taxes. In Brattleboro, this is accomplished through reducing the assessed value of the land. Only the municipal portion of the property tax is stabilized; property owners wishing to have the state education tax stabilized must apply to the Use Value Appraisal Program. The Selectboard sets the contract terms

and criteria for the tax stabilization program. In 2017, there were 7 participants with a total of 1433.60 acres in the farm tax stabilization program.

Local Infrastructure Supporting Area Farmers

While Brattleboro residents depend on out-of-state agricultural products for the majority of their food needs, local farming provides access to seasonally fresh farm products. To some this is a coveted amenity, while to others it is an opportunity to keep local dollars within the community, and support local farms. And for others, the availability of fresh food is critical to food security and the creation of a self-sufficient community that has the ability to feed itself. Brattleboro is fortunate to have a growing local food infrastructure that includes the following:

- **Farmers' Markets:** The Brattleboro Area Farmers' Market operates two farmers' markets from May to October, providing a venue for farmers to sell their products directly to the public. From November to March, a Winter Farmers' Market is held. Farmers' markets in several nearby towns also provide an opportunity for farmers to directly access a market.
- **Farmstands:** Several farms offer direct sales of seasonal fruits, vegetables, meat, eggs, and other products to consumers at farmstands in Brattleboro.
- **Community Support Agriculture (CSA):** In Brattleboro and neighboring towns, there are a variety of CSAs offering fresh vegetables, fruits, herbs, and flowers.
- **Community Gardens:** All of the public elementary schools and St. Michael School have gardens. The Town Recreation and Parks Department offers plots in a community garden located on Stockwell Drive.
- **Farm to School:** This program promotes and connects schools and local farms with the objectives of serving healthy meals in school cafeterias; improving student nutrition; providing agriculture, health, and nutrition education opportunities; and supporting local and regional farmers. In Brattleboro, the Farm to School program started in 2007 in the three elementary schools and then expanded to the middle and high schools.
- **Strolling of the Heifers Parade and Festival:** This annual celebration of agriculture, featuring a heifer parade in downtown Brattleboro, has become a signature event for the community and Vermont.

Brattleboro and the county lag behind many other parts of the state in access to resources for food processing, manufacturing, and storage and distribution facilities for farmers and value-added producers. Improved access to services such as a mobile poultry processing unit, slaughter houses and refrigerated storage may improve the agricultural output for Brattleboro and Windham County, and would present valuable economic development opportunities. Action 4.3.1 of this Plan supports initiatives that will bring needed infrastructure to Windham County. For further discussion refer to Chapter 2 "Economic Development".

While the protection of agricultural land remains important, land protection is now only one of several strategies needed to improve the vitality of local agricultural enterprise. Obstacles facing farmers today include obtaining capital for on-farm projects, farm land purchase, and support for agricultural services. Action 4.2.1 in this Plan is to amend the policies governing the Agricultural Land Protection Fund so that it can be used to overcome these types of obstacle.

FOOTNOTES

¹ Biomass Energy Resource Center, Vermont Wood Fuel Supply Study (Montpelier, 2007), p. 4.

² Report on the Council on the Future of Vermont, Imagining Vermont: Values and Vision for the Future (Vermont Council on Rural Development, 2009).

³ Regional Technology Strategies, Growing Jobs, Vermont-Style: Skills and Knowledge for Vermont's "Sustainable Food System Cluster" and Natural Resources (Vermont Department of Education, 2010, p. 12). Verdana Ventures, Farm Energy Innovation in Vermont: A Report to the Vermont Sustainable Agricultural Council (Randolph, 2008).

5|Education

Goals

- A. Provide the highest quality education for the children of Brattleboro
- B. Establish a strong cooperative relationship between the Town and higher education institutions located in and around Brattleboro
- C. Foster an environment that stimulates lifelong learning
- D. Encourage youth to pursue higher education, specialized, or advanced skills that will make them an asset to Brattleboro as adults

Policies and Actions

Policy 5.1 Maximize resources for the provision of a full and rich education for all students

Actions:

- 5.1.1 Provide opportunities for students to participate in civic life by including student representatives on Town boards, committees, and commissions; investigate whether such participation can count toward a student's community service requirement
- 5.1.2 Continue to provide financial support for early education
- 5.1.3 Work with the colleges to support collaboration efforts

Policy 5.2 Promote healthy and safe school environments

Actions:

- 5.2.1 Work to provide students with safe ways to walk or bicycle to school
- 5.2.2 Participate in community health and wellness initiatives

Policy 5.3 Strengthen job training and workforce development

Action:

- 5.3.1 Develop and build relationships between the business community and other community organizations for workforce development

Policy 5.4 Provide a variety of opportunities for residents to engage in ongoing pursuit of knowledge and lifelong learning.

Action:

- 5.4.1 Maintain and develop library programs and services that contribute to the personal education of adults (of all ages) pursuing lifelong learning opportunities.
- 5.4.2 Encourage learning beyond the classrooms by promoting lectures, discussion groups, and other educational opportunities at the library, historical society, museums, senior center, parks, studios, theaters, and other public and private venues

Quality education is essential to the health of a community. State statute not only requires that town plans address the present and projected needs of the local public school system, but also requires that municipalities broaden educational and vocational training opportunities for all Vermonters. It is not the municipality's responsibility to make policy or spending decision for the schools—those are made by the school district, with the budget voted on annually by citizens. However, as both the municipal and school budgets are financed by property taxpayers, the impacts of the combined budgets must be considered, and large capital projects should be coordinated.

Addressing education as a chapter in the Town Plan signals the Town's commitment to work cooperatively with the local school districts, colleges, and other education providers, including homeschoolers, in meeting facility needs, fostering a safe and healthy school environment, and recognizing the critical role that all types of education play in Brattleboro's vitality and character. Brattleboro's public and private educational facilities are shown on the Public Safety, Municipal Facilities, and Educational Facilities Map in Chapter 10 "Municipal Facilities & Services".

PUBLIC SCHOOLS

School District Overview

School districts in Vermont are organized in supervisory unions. The Windham Southeast Supervisory Union (WSESU) has administrative responsibility for the town school districts in the region. The WSESU Mission is to provide a safe, inclusive and supportive environment where all students grow academically, socially, and emotionally, and are challenged to reach their potential as local and global community members.

Brattleboro is a part of two school districts, each of which is responsible for establishing policy and presenting an annual spending plan for voter approval. The Brattleboro Town School District, comprised of five elected school board members, oversees the elementary schools in Brattleboro. Brattleboro Union High School (BUHS) District #6 is comprised of nine elected members, five of whom are from Brattleboro. BUHS#6 oversees Brattleboro Area Middle School, Brattleboro Union High School, and the Windham Regional Career Center.

Vermont Act 46 law, calls for consolidation of school districts throughout the state to provide a quality education with a variety of educational opportunities to all Vermont's students at a cost that parents and taxpayers that maximizes operational efficiencies and flexibility to manage, share and transfer resources. In 2017, voters in Brattleboro (and the surrounding towns) rejected a consolidation plan to merge four towns into a new school district. Members of the WSESU applied to have an Alternative Governance Structure that would allow each town to keep their own school board while working together to meet the goals of Act 46. As of the writing of this Plan, the State Board of Education has yet to determine whether or not the alternate plan will be accepted.

Public School Facilities

There are three elementary schools located in town. Students do not necessarily attend the school located closest to them; instead the elementary school population is divided by the number of students in each grade level who are placed in one of the following schools:

- Academy School was built in 1956 and is located in the Village of West Brattleboro on 10.6 acres of land. Academy School is the Town's largest school, with 47,200 square feet. In 1995, a 7,700-square-foot addition of classrooms, a library, and an art room was constructed. In 2008, a 1,456-square-foot modular classroom unit containing two classrooms and a bathroom was added to the site.
- Green Street School was built in 1924 and is located on 2.5 acres of land. Green Street School is 28,700 square feet. The most recent addition to the school was a 3,500-square-foot gym in 1995.
- Oak Grove School was built in 1912 and is situated on 2.4 acres of land. As a result of a 1995 addition, the school now contains 32,000 square feet, which include nine classrooms (two of which are dedicated

for Special Education) and a library, art/music room, cafeteria, gymnasium, support service rooms, and office.

In 2007, Brattleboro Union High School District completed the largest high school renovation project in Vermont: a \$55.7 million renovation and addition to the Brattleboro Union High School, Brattleboro Area Middle School, and Windham Regional Career Center. At this time, there are no further renovations or additions planned. Funding of ongoing maintenance is expected.

The Brattleboro Town School District has a capital planning committee that evaluates future space needs. There are no new space needs projected for the next five years. School district officials have identified maintenance to the grounds, facilities, and building systems as the capital needs in the coming years. Improving energy efficiency, where possible, through minor upgrades is a stated goal of the School Board.

Brattleboro Union High School is complemented by the Windham Regional Career Center (WRCC), which provides state-approved career and technical education. The Career Center serves all of the public schools in Windham County. Students in grades 9 and 10 can attend WRCC on a part-time basis, while those in grades 11 and 12 have the option of attending full time.

Canal Street School is also owned by the Brattleboro Town School District, although it is no longer used as an elementary school. Several Head Start classrooms operated by Early Education Services are housed in the building. The schools in Brattleboro are used for a variety of community activities in the off-school hours. The Recreation and Parks Department utilizes both indoor gyms and outdoor fields for several of their sports programs, including volleyball, basketball, soccer, and tee ball. Academy School and BUHS are also used for Representative Town Meeting and elections.

Student Enrollment

From 2013 to 2017, there was a slight decline in the number of students from Brattleboro attending the town’s public schools (see Tables 5.1 and 5.2). This decline has mirrored the statewide trend in public school enrollment.

Table 5.1: Elementary school enrollment: 5-year comparison

School	2013	2014	2015	2016	2017
Academy	388	376	366	342	351
Oak Grove	132	125	119	122	146
Green Street	244	223	218	225	228
Brattleboro School	764	724	703	689	725

Source: 2013-2016 enrollment figures from Brattleboro Town Report 2016; 2017 enrollment from <http://www.wssu.k12.vt.us/schools/index.html>

Table 5.2: BUHS #6 enrollment: 5-year comparison

School	2013	2014	2015	2016	2017
BAMS	260	253	255	298	293
BUHS	887	842	821	786	754
BUHS #6	1147	1095	1076	1084	1047

Source: 2013-2017: State of Vermont Agency of Education, Enrollment Reports; 2017: <http://www.wssu.k12.vt.us/schools/index.html>

Windham Regional Career Center’s (WRCC) enrollment has been steady at around 500 seats (approximately 200 full-time-equivalent students), with approximately 360 seats from students who attend BUHS.

The number of students eligible for free and reduced-price school meals remains high. All of the public elementary schools had over 80% of their students eligible for the program. In order to be eligible for the programs, a student must be qualified as low-income. The determinations are based on the Family Size and Income guidelines published by the U.S. Department of Agriculture. To be eligible for free meals, a family's income must be at or below 130% of the federal poverty line. If the family income is between 130% and 185% of the federal poverty line, a student qualifies for reduced-priced meals. Participation in this program is a social indicator for a community.

Special Education

Windham Southeast Supervisory Union (WSESU) Support Services administration supports all district schools with oversight of referral, eligibility, and instruction of individualized special education in the least restrictive learning environment. Support Services provides compliance oversight for federal and state regulations, and WSESU policies and procedures.

Some students require intensive accommodations and instruction that cannot be provided within the typical education setting for part or all of their school day as a result of a child's disability. WSESU provides a continuum of services from K to 12 to assure that these students progress successfully, including opportunities to participate with their same-age peers in general education.

Healthy School Communities

Increasing attention has been paid to improving the health and wellness of adults and children. Federal initiatives such as Safe Routes to School and Farm to School have focused attention on improving the health of children by promoting healthy foods and physical activity. The Vermont Department of Health, Fit & Healthy Kids Coalition of Windham County, and Meeting Waters YMCA have been involved in local efforts to build and support a healthy environment. This Plan recognizes these efforts, and supports healthy school environments through a policy and actions.

With community partners, Brattleboro schools have been very active in working to raise community awareness and improve child fitness and nutrition. The Town has participated in some of these efforts, and Action 5.2.2 of this Plan continues participation in such initiatives. As members of the Fit & Healthy Kids Coalition of Windham County, WSESU has been involved in efforts to measure the existing levels of support for physical activity and healthy eating using a variety of tools. Assessments performed by all schools within the WSESU identified the need for a research- and skills-based sequential comprehensive K–12 health education curriculum.

Other important initiatives that the schools have been, or are currently, involved in to promote healthy lifestyles include:

- **Safe Routes to School:** Green Street School participated in the Safe Routes to School (SR2S) program from 2006 to 2010. Academy School participated in the program for one year in 2009. Both schools recorded good participation at program events, and Green Street reported an increase over the years in the number of children walking and biking to school. As a result of collaboration with the Town, the schools were able to make some safety improvements in the school zones. At Academy School, the SR2S team worked with the Town Department of Public Works to install blinking lights in front of Academy School. At Green Street School, new cross-walks and a permanent solar-powered speed sign were installed to address high traffic volume and speed on Green Street, using grant funding from Safe Kids. Other project implemented to improve school zones include
 - Intersection improvements at Union Street so that it is safer for pedestrians
 - Sidewalk improvements on Whipple Street and School Street
 - Improved circulation at Academy School

- Action 5.2.1 of this Plan is for the Town to be involved with providing students with safe ways to walk or bicycle to school. This is consistent with discussion of Complete Streets and policies promoted in Chapter 7 “Transportation.”
- **Farm to School:** The Brattleboro Farm to School program began in 2007, and has expanded to all Brattleboro schools. The program helps to serve healthy meals in schools; improve student nutrition; provide agriculture, health, and nutrition education opportunities; and support local and regional farmers. It is a program of Food Connects that, through grant funding, community donations, and school district contributions, supports a Program Manager who works with the schools and food-service providers to expand nutrition and farm education in the schools.
- **Fresh Fruits and Vegetables Program:** The elementary schools also participate in the Fresh Fruits and Vegetables Program, which provides funding to serve fresh fruits and vegetables at snack times. Part of the reason the schools participate in this program is the high number of students who are eligible for free or reduced-price meals. The schools have established a partnership with the Brattleboro Food Co-op and local farmers for the purchase of food.

Early Education

Early education in Brattleboro is provided in a wide variety of settings. In addition to childcare facilities that offer pre-K services, the school district supports limited, publicly funded (through available State aid) pre-K education by partnering with programs in the community. In Brattleboro, these partners are: Brattleboro Nursery School, Hilltop Montessori, Mulberry Bush Early Learning Center, Sue’s Family Childcare, and the Winston Prouty Center. Early Education Services (EES) operates six Head Start (ages 3–5) and two Early Head Start (birth–3) classrooms at the Canal Street School, BUHS, and the Birge Nest. They have also partnered with the West Bee and Brattleboro Nursery Schools to provide some Head Start services. These programs are offered for low-income children. The demand for these programs well exceeds the existing capacity, which is limited due to funding. The Town has made an annual contribution to EES since its inception in 1987. This contribution is highly leveraged with other federal and state funding. Action 5.1.2 of this Plan is for the Town to continue to make this valuable contribution. The Vermont Department of Education and Supervisory Union recognize the importance of quality early childhood education as the foundation for school success and lifelong learning.

In 2016, Vermont implemented universal pre-kindergarten for all children aged 3-5 by providing funding for 10 hours per week at pre-qualified private programs or public schools. Anecdotally, the demand is currently exceeding the supply of pre-school openings and families are finding their children on waitlists.

The Green Street Promise Community initiative is a new effort to support children and families in the Green Street Neighborhood. With a long term goal of increasing kindergarten readiness, the Green Street Promise Community brings together people who are committed to helping young people. Using local and state resource, they promote community-based changes to better support children and families.

Independent Schools

In its role as a regional provider of services, Brattleboro continues to benefit from a variety of independent schools that offer different learning environments. These schools include: St. Michael Catholic School (PK–8), Hilltop Montessori (PK–8), Neighborhood Schoolhouse (PK–6), Christian Heritage School (K–12), and the Community School House (2–8). There are also many other independent schools within commuting distance of Brattleboro.

Under Vermont law, parents can provide home schooling. This provision allows for home-school students to be affiliated with a school, and receive assistance where appropriate.

Higher Education

Brattleboro has a broad complement of higher education resources, both undergraduate and postgraduate, that are assets to the community:

- Community College of Vermont (CCV) offers an undergraduate liberal arts education at their facility in downtown.
- The SIT Graduate Institute, a program of World Learning, has their campus on Kipling Road. SIT offers master's degrees and certificate programs for graduates and professionals. In early 2018, SIT announced that they would be changes to their graduate programs, resulting in a reduction of the number of graduate students on campus. Rather than continuing full-time graduate programs on campus, SIT Graduate School will operate lower residency programs (two to three weeks in duration) on the campus.
- Union Institute & University offers bachelors, masters, and doctoral programs at the Marlboro Graduate Center on Vernon Street.
- The Thompson Campus of Vermont Technical College, also located downtown, offers nursing classes.

These higher education institutions are small and are dispersed throughout town. Only the SIT Graduate Center has dormitories. Thus, Brattleboro does not benefit from the identity that comes with more traditional college towns where the presence of an educational institution anchors economic and cultural life. Nonetheless, Brattleboro does enjoy many benefits from having these institutions, including jobs, undergraduate study opportunities at lower tuition rates, opportunities for established workers and professionals to continue and enhance their education, opportunities for cultural enrichment, and students from outside the area adding to diversity in the local population.

Brattleboro is also well situated in that residents have access to several other colleges and universities within a short commuting distance, including Marlboro College and Graduate School in neighboring Marlboro, Keene State College, and Antioch New England Graduate School in New Hampshire, and Greenfield Community College, University of Massachusetts Amherst, and several other smaller liberal arts colleges in Massachusetts.

Adult Learning

Adults in Brattleboro and Windham County who need assistance with learning basic reading, writing, math, and English (as a second language) can receive instruction through Vermont Adult Learning (VAL). Other programs offered by VAL include:

- High school equivalency exam or adult diploma program
- Career support for qualified Vermonters
- Worker readiness programs
- High School Completion Program as an alternative path to a high school diploma for Vermonters age 16–21

Brattleboro has a wealth of resources that foster a sense of lifelong learning in the community. Brooks Memorial Library, the colleges, and several other organizations in town offer periodic programs that enrich learning in the community. Osher Lifelong Learning Institute, located on Route 5 in neighboring Dummerston, offers learning opportunities for people age 50 and older.

Workforce Training

An important component of the community's educational system is the ability to provide the labor force with appropriate job skills for future careers. This is also important for the continued economic success of the community.

(See Chapter 2 “Economic Development” for further discussion.) Several educational institutions located in Brattleboro offer workforce training, including the WRCC, Vermont Adult Learning, and Vermont Technical College. This Plan supports job training and workforce development through policy 5.3 and action 5.3.1.

WRCC offers career and technical training. For high school students, the WRCC helps prepare students for various career options by offering learning experiences that allow students to develop academic skills, technical knowledge, and other skills needed for employment or advanced education. The WRCC also offers classes for adult learners both online and in the class or shop.

WorkNet (formerly the Windham Workforce Investment Board) is a state-recognized, community-driven group that strives to address critical workforce challenges in the region. It is comprised of a volunteer Executive Committee and aided by a coordinator. The WIB provides a forum for stakeholders to identify critical workforce challenges and to plan and coordinate the delivery of effective employment and training solutions. In 2011, the WIB conducted interviews with employers and released a report identifying the workforce needs for Windham County. The report identified three challenges: employment change (growing and declining occupations), workforce change (looming workforce shortages, middle-skill worker gap, low wages), and workforce development (hiring, retaining, and training).

6 | Housing

Goals

- A. Improve the quality of the existing housing stock and the neighborhoods in which it is located
- B. Increase the supply of housing opportunities to serve residents of all income levels, age groups, and special needs
- C. Balance the need and provision of housing in the community with the impacts on the environment and on public facilities and services
- D. Provide equal housing opportunities for all residents of Brattleboro

Policies and Actions

Policy 6.1 Promote the use of all available resources for the rehabilitation and conservation of the existing housing stock

Actions:

- 6.1.1 Develop a process to monitor land and buildings in existing neighborhoods to help identify threats to neighborhood stability and opportunities for new development
- 6.1.2 Continue to support programs that preserve and upgrade the existing housing stock
- 6.1.3 Conduct research and analysis of the benefits and impacts of implementing a building code enforcement program

Policy 6.2 Direct any new residential development to areas where services are readily available and efficient, and cost-effective development is most likely. Avoid adding residential development in areas vulnerable to natural hazards such as flooding and/or with limited access

Actions:

- 6.2.1 Provide incentives for the construction of residential units in conjunction with new or substantially renovated commercial structures

Policy 6.3 Encourage residential development that promotes energy efficiency, universal design (designing residences so that they can be used by people of all abilities), and sustainable building

Actions:

- 6.3.1 Provide density bonuses for energy-efficient siting and construction
- 6.3.2 Investigate and establish development standards to promote solar energy access for all new residential development, including community solar
- 6.3.3 Promote the incorporation of energy-efficient features in new and existing construction by making information available on programs and resources for energy-efficient building materials and techniques
- 6.3.4 Support regional nonprofit rehabilitation loans

Policy 6.4 Continue to support affordable housing for low and moderate income households

Actions:

- 6.4.1 Continue to support efforts to develop new homeownership and rental opportunities that are affordable to very low, low and moderate income households
- 6.4.2 Work with the Southeastern Economic Development Strategy and the Workforce Investment Board to evaluate the housing needs of local businesses and industries

Policy 6.5 Encourage and implement residential development practices that result in more innovative housing options for diverse populations, while fostering sustainable development

Actions:

- 6.5.1 Continue to offer Planned Unit Development options to encourage contemporary design and density bonuses.
- 6.5.2 Share information with residents about resources and services that can help extend independent living and reduce energy expenditures.

Policy 6.6 Encourage and support the enforcement of laws and regulations prohibiting discrimination in the sale and rental of housing

Action:

- 6.6.1 Disseminate information on fair housing law and regulations through the Town's public facilities

Policy 6.7 Support pathways to permanent housing and retention of housing.

Housing plays a major role in defining Brattleboro’s sense of place, is a dominant category of land use, and contributes strongly to the character of neighborhoods and the Town as a whole. Public infrastructure investments are influenced by the location of existing and new housing. Housing is predominantly a private market activity; the purpose of this chapter is to guide and direct for the long-term preservation and improvement of residential neighborhoods, as well as the development of new housing units in mixed-use commercial settings (including Downtown) and other areas in town where physical infrastructure is readily accessed and natural hazards are minimal. Brattleboro has a long and proud history of supporting local initiatives to address affordable and special needs housing. This chapter provides some background on key initiatives in the affordable housing market.

CURRENT CONDITIONS

The residential land development market in Brattleboro has proved uncompetitive. Brattleboro has not sustained an active residential subdivision or condominium development market since the early 1990s. Several recent subdivision developments have failed as business ventures, burdening the Town (and taxpayers) with the costs of subsequent infrastructure construction and maintenance. Moreover, Brattleboro’s outdated housing stock (most of which is dated pre-1940s) often fails to meet contemporary market demands in terms of amenity, size, energy efficiency, and other expectations. Current market demands partially reflect long-term demographic changes, including household type, size, income, and special-needs populations. Overarching demographic trends, such as substantial growth in seniors, single-person households, and single-parent households, indicate a need for greater diversity in the housing stock.

Demographic Conditions

Brattleboro’s population growth has remained stable for over 50 years, with no appreciable growth or decline. This stagnation, despite land use capacity, is the opposite of trends at the county level and in neighboring towns. Table provides a snapshot of demographic data.

Table 6.1: Demographic profile

	1990	2000	% Change	2010	% Change
BRATTLEBORO					
Population	12,241	12,005	-1.93%	12,046	0.34%
Housing units	5,551	5,686	2.43%	5,998	5.49%
Households	5,092	5,364	5.34%	5,562	3.69%
Persons per household	2.3	2.15	–	2.09	–
WINDHAM COUNTY					
Population	41,588	44,216	6.32%	44,513	0.67%
Housing units	25,796	27,039	4.82%	29,735	9.97%
Households	16,264	18,375	12.98%	19,290	4.98%
Persons per household	2.49	2.35	–	2.23	–

Source: U.S. Census Bureau, Profile of General Population and Housing Characteristics

The average number of people per household has declined from 2.3 in 1990 to 2.09 in 2010—noticeably smaller than the county average of 2.23 and the Vermont average of 2.34. This statistic reflects a relatively high percentage of people living alone. It also conforms to the national trend to having fewer children per household.

Other Brattleboro household characteristics, according to the 2010 Census, include:

- 25% of all households have individuals under age 18, lower than the state average of 28.9%
- 25.9% of households have individuals age 65 and above, almost identical to the state average of 25.4%
- 51.5% of total households are family households;¹ 48.5% are nonfamily. Statewide, 62.5% are family households, and 37.5% are nonfamily.

13.6% of all households have a female householder with no husband present; 9% have a female householder and her own children younger than age 18 (no husband present).²

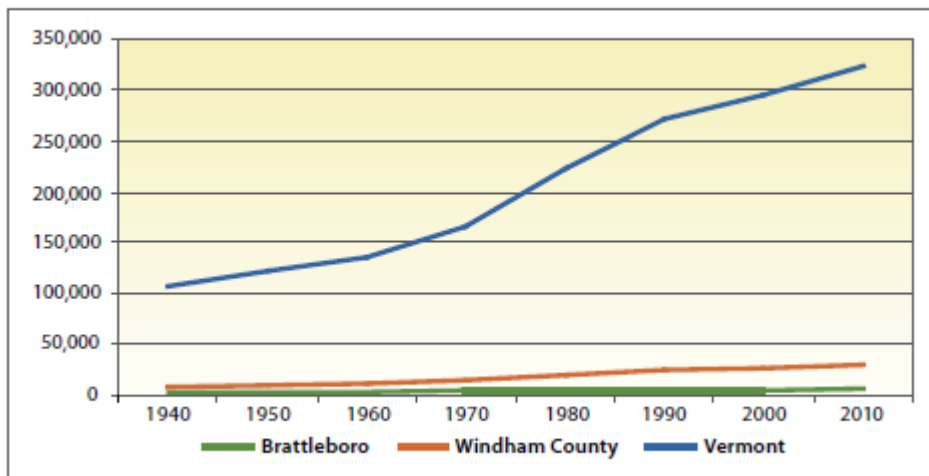
Over one-third (38.7%) of householders live alone, and in 13.4% of all households the householder lives alone and is age 65 or older. Only 11.6% of all households are made up of married-couple families with their own children under age 18. Without significant numbers of new young families, household size may remain steady or decrease further as the population ages.

Housing Growth

The 2010 Census reports a total of 5,998 housing units in Brattleboro. This is actually a 5.4% increase (310 units) since the 5,686 units reported in 2000. This increase in dwelling units was not accompanied by a corresponding population increase, as Brattleboro's population only increased by 39 people over the same time period.

Brattleboro has experienced slow growth in its housing stock, never experiencing the housing boom that other parts of Vermont and Windham County experienced in the 1970s and 1980s, nor the housing boom that other parts of New England experienced in the 1990s (see Figure 6.1). However, according to the American Community Survey 2010 data, Brattleboro's slow growth is consistent with that of neighboring towns. Windham County's housing growth can largely be attributed to vacation or seasonal home development associated with the expansion of the ski resorts from 1980 to 1990.

Figure 6.1: Total housing units



Source: U.S. Census 2010

Types of Housing Unit

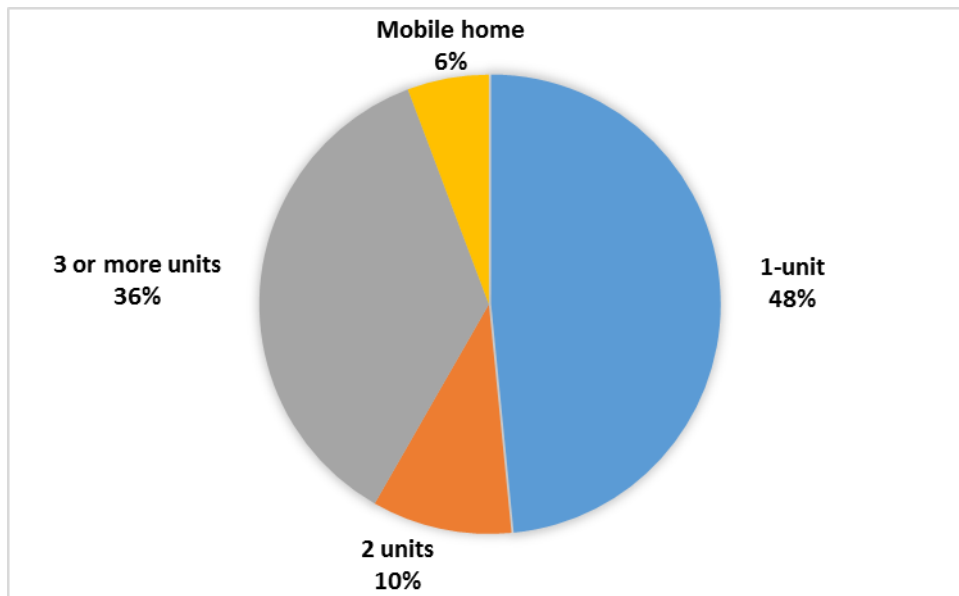
As shown in Figure 6.2, just over half of Brattleboro’s housing units are single-unit structures (either detached or attached) (approximately 52%) while 42% of the units are classified as multifamily units. The remaining 5% of units is made up of mobile homes. It should be noted that this information is from the American Community Survey 5-year estimates which has a high margin of error in rural areas due to smaller sampling sizes.

According to the Brattleboro Assessor’s data, there were 389 mobile homes as of August 2017. In Vermont, mobile homes are protected from exclusionary zoning practices, except on the same terms and conditions as conventional housing is excluded. Nonetheless, there has not been growth in mobile homes in Brattleboro. Almost all of the mobile homes are located in one of four parks (Mountain Home, Glen Park, Black Mountain, and Deepwood Mobile Home Park).

Brattleboro’s diversity in housing options is enhanced by the presence of “accessory dwelling units,” commonly defined as “an efficiency or one-bedroom apartment that is clearly subordinate to a single-family dwelling, and has facilities and provisions for independent living.” Accessory dwellings are treated as permitted uses in Brattleboro.

There is a variety of housing size in Brattleboro, but most does tend to be smaller; 61.6% of the housing units contain 5 rooms or less (see Table 6.2). This is largely due to the large number of apartments.

Figure 6.2: Housing units by type in Brattleboro



Source: American Community Survey, 5-year Estimates 2011-2015

Table 6.2: Number of rooms in units

Room	Total Housing Units	% of Housing Units
1 room	144	2.4
2 rooms	391	6.6
3 rooms	814	13.8
4 rooms	1011	17.2
5 rooms	1271	21.6
6 rooms	773	13.1
7 rooms	520	8.8
8 rooms	357	6.1
9 rooms or more	612	10.4

Source: American Community Survey 5-year Estimates 2011-2015

Housing Tenure

“Housing tenure” refers to the terms or conditions under which housing is occupied. Tenure characteristics illustrate the range of housing options available in a community, as well as suggesting the degree of household stability. A significant feature of Brattleboro’s housing picture is that the large amount of multiunit housing results in a high number of renters. According to the 2010 U.S. Census, the proportion of households renting in Brattleboro is 49%, much higher than the national average of 35%. Windham County (32%) trends closer to the national and state (29%) pattern of having nearly twice as many homeowner as renter households. Given the rural nature of Windham County and the type of much of the housing stock in the older Brattleboro neighborhoods, and given that the town serves as a regional center for jobs, shopping, and other services, it is reasonable to expect Brattleboro to have a high concentration of rental housing.

Age of Housing Stock

The age of Brattleboro’s housing stock plays a role in the vitality of the community, as well as the overall cost of living. According to the Brattleboro Assessor’s data, approximately 76% of all housing units in Brattleboro were built prior to 1980, with over 50% constructed prior to 1950 (see Table 6.3). The age is significant, because after three decades, it is more likely that maintenance and major component replacement are needed, and that desired features of modern housing may be missing. Often older homes have high operational costs (e.g., older homes that are not sufficiently insulated may have higher heating bills).

An aging housing stock also raises concerns as to the quality of Brattleboro’s rental housing supply. Health and safety codes applicable to rental housing are enforced by various state and local agencies, including the Vermont Department of Labor and Industry, the Brattleboro Fire Department, and the Town Health Officer. Generally, issues related to electrical codes, plumbing rules, and handicapped accessibility are referred to the state. Fire safety codes are addressed at both the local and state levels, and issues involving sewage disposal, water supply, and rodent and insect control are handled at the local level.

Table 6.3: Age of housing in Brattleboro

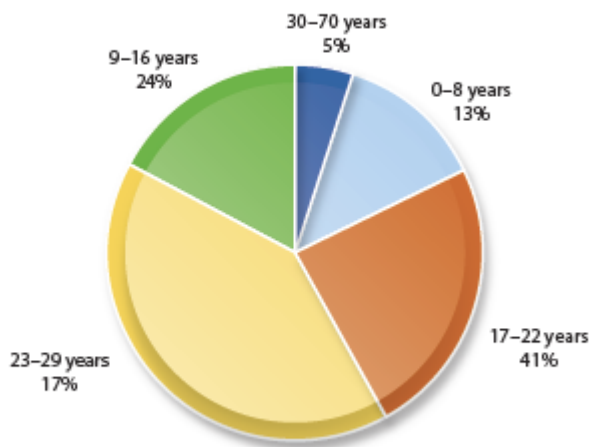
Decade built	Housing units	Percent
Prior to 1950	3,115	52.9%
1950 to 1959	399	6.8%
1960 to 1969	434	7.4%
1970 to 1979	553	9.4%
1980 to 1989	667	11.3%
1990 to 1999	508	8.6%
2000 to 2009	207	3.5%
2010 to present	10	0.2%

Source: Selected Housing Characteristics Income: 2011–2015 U.S. Census, American Community Survey.

Housing Condition

The physical condition of housing is a key issue for maintaining the overall health of the Town and its neighborhoods. The physical depreciation value assigned by the Brattleboro Assessor’s Office in determining the assessed value was reviewed to measure the Town’s housing quality. This value helps establish the effective age of the structure, which is an indication of its condition and utility. Figure 6.3 shows that 5% of Brattleboro’s housing units have been depreciated between 30 and 70 years (based on the depreciation schedule from the last reappraisal which was in 2010). An additional 17% have been depreciated between 23 and 29 years. The age of Brattleboro’s housing stock could have a negative impact on housing conditions, particularly due to deferred maintenance, as homes approach obsolescence in today’s market.

Figure 6.3: Housing unit physical depreciation



Source: Brattleboro Assessor’s data

Affordability

Cost of Homeownership

Median income and housing values indicate the trend that home ownership is becoming more and more difficult for people in Brattleboro. For example, in 2000, households at the median household income could afford dwellings priced around the median home value in Brattleboro. By 2010, the same households could afford no more than dwellings priced at \$61,000 below the median value. This

affordability gap precludes many homeowners from buying their first home and will also put additional demand on the rental housing market, contributing to higher rents. Alternatively, households will relocate to where their income is more in line with house prices.

A generally accepted standard used to define affordability is that monthly housing costs should not exceed 30% of household income. According the Department of Housing and Urban Development (HUD), families who pay more than 30% of their income for housing may be “cost-burdened” and have difficulty affording necessities such as food, clothing, transportation, and medical care.³ It should be noted that the term “affordable housing” is relative, since it depends on the income of the household. Affordable housing is not the same thing as subsidized housing for persons of low and/or moderate income, although subsidized housing is one type of affordable housing.

Vermont defines “affordable housing” as either of the following:⁴

- (A) Owner-occupied housing for which the total annual cost of ownership, including principal, interest, taxes, insurance, and condominium association fees, does not exceed 30 percent of the gross annual income of a household at 120 percent of the highest of the following:
 - (i) the county median income, as defined by the U.S. Department of Housing and Urban Development (HUD);
 - (ii) the standard metropolitan statistical area median income if the municipality is located in such an area, as defined by the U.S. Department of Housing and Urban Development; or
 - (iii) the statewide median income, as defined by the U.S. Department of Housing and Urban Development.
- (B) Rental housing for which the total annual cost of renting, including rent, utilities, and condominium association fees, does not exceed 30 percent of the gross annual income of a household at 80 percent of the highest of the following:
 - (i) the county median income, as defined by the U.S. Department of Housing and Urban Development;
 - (iii) the statewide median income, as defined by the U.S. Department of Housing and Urban Development.

To determine the affordability of homes, it is necessary to estimate the maximum price of a home that a person/ family can afford if they spend no more than 30% of their income on housing costs, including mortgage payments, property taxes, and insurance. This calculation depends on many factors, including interest rates, the length of the mortgage, and the amount of the down payment. Based on assumptions for a typical home buyer, a family earning the estimated median household income for Brattleboro of \$47,597,465 (ACS 20011–2015) could afford a home costing approximately \$161,000.⁵ The median price of primary residences sold in 2015 was \$165,000. Housing affordability for other income ranges and the number of single-family units in each price range in Brattleboro is shown in Table 6.4.

Table 6.4: Approximate cost of homeownership units, 2010

Assessed value	Affordability range	Single-family homes		Condominiums	
	Median county income \$46,465	Units	%	Units	%
\$76,000 or below	Less than 50%	22	1	9	3
\$76,000–\$123,500	50%–80%	148	7	69	26
\$123,500–\$154,500	80%–100%	322	16	98	37
\$154,500–\$186,000	100%–120%	512	25	55	21
\$186,000–\$280,500	120%–180%	785	38	27	10
over \$280,500	180% and over	265	13	7	3

Sources: Median Home Value, Assessed Value, and Number of Units: Town of Brattleboro Assessor’s Database. Assessed Value is assumed to be 96% of actual value. Median Home Value and Household Income: 2005–2009 U.S. Census, American Community Survey.

As shown in Table 6.4, approximately 24% of the Town’s single-family units were affordable to households earning the median income or less for the region. Households earning more than the median income had greater housing choice. About 87% of single-family units were affordable to those earning up to 180% of median income. Also shown in Table 6.4, condominium units remained more accessible to a range of income levels. Two-thirds of the units (66%) were affordable to households earning 100% or less of the median income.

Cost of Rental Housing

There is constant strong demand for rental apartments in Brattleboro; vacancies are low. Good-quality, affordable units are hard to find. Market prices vary significantly, given the variable quality in units on offer. While rental housing costs in Brattleboro have increased, it is difficult to measure the increase due to differing data methodologies. This information is collected based on a sample basis through the American Community Survey (ACS), so it is not possible to get an accurate count. The ACS 2011–2015 estimate was \$841. The 2015 Housing Needs study prepared for Windham & Windsor Housing Trust notes that Rental costs for Brattleboro have kept up with the state and have significantly exceeded the rest of the country.

The 2011-2015 ACS estimated that half of renter households (51.1%) spent more than 30% of their household income on housing costs. Of owner-occupied households with a mortgage, it was estimated that over one in three (37.48%) spent more than 30% of their household income on housing costs.

The number of renter households in Brattleboro has inched closer to 50% from 2000 (48%) to 2010 (49%). Many renter households are sensitive to price increases, particularly those in the lower income category. For instance, seniors on fixed incomes or families earning a minimum wage are likely to be the first to get squeezed out. In addition, the 0.7% vacancy rate (2011-2015 ACS) indicates a tight rental housing market.

Housing Resources

Meeting the needs for housing in Brattleboro is dependent on a shared commitment by public agencies, nonprofit organizations, and the private market.

Public and Assisted Housing Opportunities

Brattleboro Housing Partnerships (BHP) owns and operates Federal Public Housing within the Town (see Table 6.5 for a listing of their properties). HUD subsidizes the rent in these developments through an annual operating subsidy to the BHP. Residents pay no more than 30% of their adjusted gross income for rent,

regardless of the size of the apartment. BHP has 6 public housing developments and 1 tax credit affordable housing rental and commercial building, for a total of 30 units. BHP also administers the local Housing Choice Voucher program, which makes up to 145 rental vouchers available for use in the private and non-profit housing market. Landlords who accept these vouchers receive the difference between fair market rent and the actual rent paid by the qualified low-income individual or family.

In 2016, BHP opened Red Clover Commons, a 55-unit affordable housing development serving seniors and disabled adults. Flooding from Tropical Storm Irene forced the evacuation of all 84 residents from Melrose Terrace and damaged several buildings. The need to ensure safe housing became a priority for BHP; Red Clover Commons is the first phase of a long term plan to relocate all residents from the flood hazard area.

The nonprofit Windham & Windsor Housing Trust (WWHT, formerly Windham Housing Trust) has been an active developer of affordable housing opportunities for both renters and homeowners in Windham and Windsor counties. It is involved in acquisition, rehabilitation, sale, and management of affordable housing, including mobile home parks. WWHT has completed projects resulting in 260 units of affordable housing in Brattleboro, ranging from rehabilitation of single-family homes and multifamily housing units to adaptive reuse of historic structures.

Table 6.5: Brattleboro Housing Partnerships properties

Property	Units	Target	Unit size
Ann Wilder Richards	21	Tax credit property*	One- and two-bedroom and studio
Samuel Elliot Apartments	62	Elderly and disabled	One-bedroom
Hayes Court	72	Elderly and disabled	One- and two-bedroom and studio
Ledgewood Heights	41	Primarily family	Two-, three-, four-, and five-bedroom
Melrose Terrace	25	Elderly and disabled	One-bedroom
Moore Court	28	Primarily family	Two-, three-, and four-bedroom
Red Clover Commons	55	Elderly and disabled	One- and two-bedroom
Total	304		

*A tax credit property provides a reduction in federal tax liability over a 10- year period for owners of qualifying rental housing who agree to conform to certain operating restrictions for at least 15 years.

Source: Brattleboro Housing Partnerships

Housing Programs

In addition to the services of BHP and WWHT, a number of local housing programs are available to help individuals with lower incomes, special needs, and/or housing maintenance needs (see Table 6.6). Action 6.1.2 of this Plan continues support for programs that preserve and upgrade the existing housing stock.

Special Needs Housing Opportunities

Special needs populations include the elderly, frail elderly, people living with disabilities (mental, physical, developmental), youth at risk, persons in need of transient housing to avoid or alleviate homelessness, and other populations where a combination of housing and supportive services will enhance their quality of life. In general, a high quality of supportive services is provided to populations with special needs in Brattleboro. However, an extensive analysis of existing housing supply and gaps has not been conducted for this Plan.

Table 6.6: Local housing programs

Program	Agency	Description
Homeownership Center	Windham & Windsor Housing Trust	Program dedicated to expanding homeownership opportunities and helping people remain in their homes. Services include homebuyer workshops, pre-purchase counseling, financial assistance for purchase, affordable homeownership through the Homeland program, home repair loans, delinquency intervention, and credit repair assistance
Rehab Loan Fund	Windham & Windsor Housing Trust	Helps income eligible homeowners access funding for needed repairs
Apartments in Homes	Brattleboro Area Affordable Housing Corporation	Offers technical and financial assistance for homeowners wishing to construct an apartment in their home
Save Our Homes	Brattleboro Area Affordable Housing Corporation	Makes small no-interest loans (maximum of \$400) to those with housing emergencies.
Windham County Heat Fund	Windham County Heat Fund, Inc.	Home heating assistance for those in need
Rental Housing Improvement Program	Town of Brattleboro	Low-interest loan program managed by the Brattleboro Area Housing Coalition to help landlords make basic repairs or improvements
Transitions to Housing	Brattleboro Housing Partnerships	Limited rental assistance for hard-to-house (individuals and families on Reach Up*, youth leaving foster care, women with family leaving prison) combined with case management and service coordination
Shelter Plus Car	Brattleboro Housing Partnerships	Housing and support services on a long-term basis for homeless persons with disabilities – primarily those with serious mental illness, chronic problems with alcohol or drugs, or acquired immune deficiency syndrome (AIDS or related diseases)
Seniors Aging Safety at Home (SASH)	Brattleboro Housing Partnerships	Coordinated services to support seniors living at home
Weatherization Assistance Program	Southeastern Vermont Community Action (SEVCA)	No-cost weatherization services (energy audits, insulation and air sealing, heating system improvements, and other energy-saving measures) to low-income residents owning or renting homes
Helpfund	SEVCA	Provides small grants to individuals and families who have urgent financial needs of any type, and how have sought help from usual sources without success
Emergency Home Repair Program	SEVCA	No-cost emergency home repairs to address immediate health and safety risks for low-income households in crisis
Crisis Fuel and Utility Assistance	SEVCA	Provides low-income individuals assistance to heat homes and prevent utility disconnection
Housing Stabilization Program	SEVCA	Intervention to stabilize households with significant and constant barriers to maintaining housing

*Temporary Aid to Needy Families (TANF) is known as Reach Up in Vermont.

Elderly and Frail Elderly

As Brattleboro’s 65+ senior population grows, so will the need for smaller units with rents affordable to those on fixed incomes. Table 6.7 lists the existing senior housing, including 230 units of housing for low- and moderate-in-come seniors. BHP manages 205 of these units.

Table 6.7: Senior housing in Brattleboro

Property	Fully handicapped accessible	Elderly only	Elderly/ disabled only
Samuel Elliot Apts.	7	0	55
Fairview Village	0	0	25
Hayes Court	1	0	70
Melrose Terrace	0	0	25
Red Clover Commons		0	55
Total	8	0	230






Brattleboro has several housing options for seniors needing some level of assistance, but there is a shortage of this type of housing. Currently, Holton Home and Bradley House offer licensed residential care, Pine Heights offers rehabilitation services and long-term care, and Thompson House Nursing Home offers nursing home services and short-term rehabilitation. There are no licensed assisted-living facilities in Brattleboro. According to the Vermont Department of Disabilities, Aging & Independent Living, assisted-living facilities are state-licensed residences that combine housing, health, and supportive services to support resident independence and aging in place. At a minimum, assisted-living residences offer, within a homelike setting, a private bedroom, a private bath, living space, kitchen capacity, and a lockable door.

Transitional and Emergency Housing

Homelessness and housing insecurity remains a persistent problem. The non-profit housing, shelter and support services sectors are strong and engaged in providing direct services to clients. People use homelessness prevention services when they are at risk of homelessness. They stabilize their housing through short-term financial assistance to prevent eviction or disconnection of utilities. Some residents experience short term homelessness. They “couch surf” with friends, stay in emergency shelters or live outside. Others have chronic homelessness who depend on shelters for their housing.

The 2017 Point In Time Count Report, a one day count of homeless people in Vermont, counted 114 homeless people in Windham County.⁶ At the local level, the Brattleboro Winter Overflow Shelter sees an average of 25 people per night and has served over 80 separate homeless adults; Goundworks Shelter remains full all the time, serving an additional 25–30 people.

Figure 6.8: Homelessness by the numbers

	114	Estimated number of homeless people on any given night in Windham County
	25	Average number of homeless adults at the Overflow Shelter per night
	25 – 30	Average number of homeless people served nightly at Groundworks Shelter
	3	Number of permanent shelters in Brattleboro
	1	Number of seasonal shelters in Brattleboro

Source: Libby Bennet, E-Mail message to author, 2017.

For those facing an acute housing crisis, there are 30 beds and 1 apartment (providing transitional housing) at Groundworks Collaborative, a year-round homeless shelter that also provides an outreach program and case management to shelter residents and community members. There is also an emergency shelter operated by the Women’s Freedom Center, serving women and their children who are victims of domestic and/or sexual abuse. Groundworks provides a day shelter with a community food shelf, support services, and a place for homeless and lonely people to come. They also operate an overnight homeless warming shelter during the winter months.

There are also transitional housing programs in Brattleboro that provide a combination of housing and support services to help transition people to permanent housing in a specified period of time. Youth Services, Inc., a nonprofit based in Brattleboro, provides short-term emergency housing and follow-up mediation and/or counseling for teens who threaten to, or have, run away or are pushed out of their home. Youth Services, Inc. provides support to local 16- to 21-year-old youth who lack stable living alternatives through two programs that provide transitional housing— Transitional Housing Toward Independence (THTI) and Transitional Living. THTI is a six- to nine-month program designed to help youth move toward full independence, which includes maintaining a job, affording an apartment or room, and having life skills so as to require minimal support. The Transitional Living program helps support youth by teaching them the skills necessary to live on their own. The program is Medicaid funded and can provide rent stipends to landlords to help pay for housing costs.

BHP operates two programs to help the homeless and hard-to-house. The Shelter-Plus Care Program provides rental assistance for hard-to-serve homeless persons with disabilities in connection with supportive services, funded from sources outside the program. This program primarily serves those with serious mental illness, chronic problems with alcohol and/or drugs, and acquired immunodeficiency syndrome (AIDS) or related disease. The Pathways to Housing program provides limited rental assistances for hard-to-house (individuals and families on TANF/Reach Up, youth leaving foster care, women with family leaving prison) combined with case management and service co- ordination. Meadowview, located at the Brattleboro Retreat, is a licensed residential care home in Brattleboro that serves as a transition from the Vermont State Hospital to the community.

WWHT has a Life Skills Housing Program that provides affordable apartments and supportive services for single (or expectant) mothers and their children. The program, targeted to women receiving, or about to receive, welfare provides a stable environment where women can enhance their independent living skills as well as their job readiness.

In 2017, WWHT broke ground on Great River Terrace, permanent supportive housing development with 22

micro-apartments. This is a residential model that has been embraced nationwide as a critical part of caring for homeless and vulnerable populations. Partnerships with Groundworks Collaborative and Healthcare and Rehabilitation Services (HCRS) will provide on-site services geared towards helping residents face complex challenges.

LAND USE AND HOUSING

Brattleboro's current Land Use Regulations include several measures to encourage affordable housing development. These include:

- A full range of housing types is allowed in appropriate districts. Congregate living uses have been consolidated and definitions have been updated and align with state requirements as needed.
- The small minimum lot sizes, relatively high densities and allowing multi-unit buildings all contribute to controlling the cost of housing. The densities permitted in the Cottage Cluster, Traditional Neighborhood, and Conservation planned unit development make them suitable to support affordable housing.
- High-density residential development is allowed nearly all the areas served by water and sewer, except for the industrial district. Density bonuses are provided for in planned unit development to provide for efficient and cost-effective development.
- In accordance with State law, accessory dwellings are a permitted use within or appurtenant to an owner-occupied single-family dwelling. Accessory dwellings are generally defined as small apartments, subordinate to the main dwelling, with separate living facilities. In addition, home occupations are an allowed as-of-right in all residential areas, as long as they create minimal impacts.

Housing Needs

Improve housing quality

The general condition of the housing stock and neighborhoods are of critical importance to the continued economic vitality of Brattleboro. Housing can contribute to household wealth (through accumulating assets), create jobs, and boost local revenues and contribute to the tax base. Given the age of the housing stock in Brattleboro, a large number of housing units have already or soon will reach the limit of their useful lives if they are not rehabilitated. Therefore, this Plan supports the continuation of regional nonprofit rehabilitation. Quality housing directly impacts the town's ability to finance needed improvements to support the economy through receipt of property taxes.

Improving energy efficiency is one way to improve the housing stock. Brattleboro's homes are old and expensive to heat. There are many opportunities for conserving energy in new and existing homes. Home energy audits and weatherization programs can help retrofit existing homes with energy-conserving features that will also help reduce operational costs and improve quality. This Plan recommends several actions related to housing and energy efficiency, including density bonuses for energy-efficient siting and construction and development standards to promote solar access. It also recommends continuing to make information available about various state and local programs and resources for energy-efficient building materials and techniques.

Another way to improve the housing stock is to incorporate universal design features into new and existing homes. This is an important way to improve the safety and utility of housing for all people, especially in a time when health and long-term care policies are shifting toward aging in place. While Brattleboro does not have building codes to require universal design features, voluntary or incentive-based programs could be developed. The aging housing stock in Brattleboro indicates that there could be a benefit to adopting and implementing a local building code. Currently, life-safety and plumbing inspections for commercial buildings (including apartments) are performed by the Vermont Division of Fire and Safety. While there is a state building code that applies to all other construction, there is no inspection system in place. Further exacerbating this

problem is the absence of state licensure of building contractors. In years past, Brattleboro did have a code enforcement program. Building codes establish predictable, consistent minimum standards that are applied to the quality and durability of construction materials. Inspection during construction is the only way to independently verify that the builder and building contractors have complied with the codes. Code adoption reduces risk exposure, helps underpin assessed values, and reduces owner's insurance costs. Action 6.1.3 of this Plan is to investigate the benefits and impacts of implementing a local building code enforcement program so that these can be reviewed locally for both owner- and renter-occupied units.

Locate and design housing development to use infrastructure resources more efficiently

Housing needs should be addressed through infill development and the rehabilitation and redevelopment of existing stock. Focus should be placed on providing market rate housing choices that meet the needs of young professionals, retiring seniors, and smaller households. There are many possible ways to incorporate new housing development housing styles (i.e., apartments, senior housing, duplexes, condominiums, cottage housing, etc.). The first priority when considering new housing development should be to ensure that units are adequately served with water, sewer, and other basic infrastructure needs. Therefore, it will be necessary to locate housing in areas that can be served by municipal water and sewer. New housing development should be considered as an infill housing opportunity in Downtown or on Canal Street and as a planned development on Putney Road. Actions 6.2.1 and 6.2.2 in this Plan are to direct housing to Putney Road (Veterans Bridge north to Exit 3) and to encourage mixed-use commercial/ residential buildings.

The flooding in 2011 has underscored the need to locate housing away from high-risk areas and areas where natural events can cause repeated disruption. This led the Town to promote buyouts and relocation of structures from the special flood hazard area. It is in the Town's best interest to continue to work diligently with property owners to explore solutions that result in residences being accommodated in safer, more appropriate locations. As expressed in action 6.5.2 in this Plan, the Town will continue to encourage these actions and work cooperatively where appropriate.

Continue to strive to meet the needs of all

There is also a need for affordable housing in Brattleboro that supports and attracts a variety of households. Housing in various forms should be sought to meet the needs of various households, including:

- Residents who have raised their families and want to continue to live in Brattleboro in a smaller housing unit
- Retired people and other residents wishing to remain in the community and nearby residents wishing to move into the community to be close to services
- New couples, young families, or single adults who have grown up or come to work in Brattleboro
- People who work in town
- People with insecure housing and the homeless

Action 6.4.1 addresses these needs through the following actions: evaluating workforce housing needs and supporting efforts to develop new homeownership and rental opportunities that are affordable to very low, low- and moderate-income households.

Brattleboro has a sizable share of the region's publicly assisted rental housing and homeless population. The Town should continue to work with nonprofit organizations and state agencies to maximize the effectiveness of scarce public resources to maintain these housing opportunities.

FOOTNOTES

¹ According to the Census Bureau, "Family households" consist of a householder and one or more other people related to the householder by birth, marriage, or adoption. They do not include same sex married couples, even if the marriage was performed in a state issuing marriage certificates for same-sex couples. Same-sex couple households are included in the family households category if they include at least one additional person related to the householder by birth or adoption. Same-sex couple households with no relatives of the householder present are tabulated in nonfamily households. "Nonfamily households" also include people who live alone or non-

relatives living together, such as unmarried partners or roommates.

²The U.S. Census has collected data on single-parent households since at least the 1950s. The data on “female householder with own children (no husband present)” are often referenced as indicator of economic security.

³ U.S. Department of Housing and Urban Development, Community Planning and Development website, “Who Needs Affordable Housing?” www.hud.gov/offices/cpd/affordablehousing/index.cfm, (May 2012).

⁴ 24 Vermont Statutes Annotated §4303(1).

⁵ This calculation is based on Vermont Housing Data’s Home Mortgage Calculator. It assumes a 5% down payment, 30-year mortgage, interest rates based on an estimated 0-point loan based on Freddie Mac’s Primary Mortgage Market Survey for each quarter of the current calendar year, estimated average monthly premiums for Private Mortgage Insurance provided by Mortgage Guaranty Insurance Corp., property tax rates at the statewide average for the prior calendar year, property insurance based on estimated average monthly premiums for a detached, single-family home in Vermont from the Vermont Dept. of Banking, Insurance, Securities, and Health Care Administration and the Insurance Information Institute, and estimated Vermont Property Transfer Tax and average additional closing costs in Vermont. It should be recognized that changing any of these assumptions would affect the amount that a household could afford.

⁶ 2017 Point in Time Survey, <http://helpingtohousevt.org/pointintime/>

7|Transportation

Goals

- A. Integrate infrastructure and design features into street design and construction to create safe and inviting environments for all users to walk, bicycle, and use public transportation
- B. Maintain Brattleboro as the hub for regional goods movement via truck and rail

Policies and Actions

Policy 7.1 Create streets that are safe for travel by all users of all abilities

Actions:

- 7.1.1 When undertaking road projects, design improvements so that pedestrians, bicycles, and motor vehicles have adequate width; manage driveway access points; and moderate traffic speeds through the use of a variety of traffic calming devices
- 7.1.2 Stripe high-visibility crosswalks on major streets
- 7.1.3 Install and maintain the proper design and illumination levels of lighting on public streets and private property to ensure adequate illumination for public safety but not excessive spillover onto adjacent residential properties or to cause urban skyglow, light trespass, glare, or clutter
- 7.1.4 Consider 3- to 4-foot buffer strips between the road and sidewalk to accommodate snow load

Policy 7.2 Promote bicycle and pedestrian mobility

Actions:

- 7.2.1 Develop a priority-ranked sidewalk upgrade program focusing on major arterial routes
- 7.2.2 Develop shared use paths and trails
- 7.2.3 Improve bicycle storage in the downtown
- 7.2.4 Work with federal, state, regional, and local agencies and any other available public or private funding sources to secure funding for the bicycle and pedestrian systems
- 7.2.5 Conduct bicycle and pedestrian audits to validate concerns for pedestrians and bicyclists related to the safety, access, comfort, and convenience of the walking and bicycling environment

Policy 7.3 Promote alternatives to the single-occupant vehicle

Actions:

- 7.3.1 Support in-town bus service operated by Connecticut River Transit
- 7.3.2 Continue to actively work with the State of Vermont, Windham Regional Commission, and transportation providers to maintain and, where possible, increase the number and frequency of transportation modes to and in Brattleboro
- 7.3.3 Encourage the use of passenger train service through continued efforts to enhance the town's rail station and better connect it to downtown and other local attractions
- 7.3.4 Support state initiatives to improve the rail infrastructure

Policy 7.4 Work with local, regional, state, and federal agencies to address regional freight needs and to mitigate local impacts

Policy 7.5 Ensure that all new transportation improvements do not adversely impact the Town's neighborhoods

Actions:

- 7.5.1 Work with the state and local jurisdictions on streetscape designs that minimize impacts on Brattleboro's neighborhoods, aesthetics, vistas, and bicycle/pedestrian facility connections for all users

Transportation has always played a large role in every-day Brattleboro, as it is situated on the Connecticut River, is flanked by a major railroad, and lies at the intersection of major north-south routes (Interstate 91, state Route 5), and the east-west Route 9. As a regional center with significant warehousing and transportation activity, Brattleboro depends on maintaining vital intermodal links to the region and further afield while preserving a traditional pedestrian-oriented downtown and quiet safe local streets. This plan responds to commitments made in the state Legislature in the Complete Streets bill (H.198) designed to reduce dependency on the private automobile by improving the experience of other road network users and public transit users. The plan seeks to improve traffic flow on major arterial roadways and promote traffic calming in residential neighborhoods. Finally, the plan encourages more walking and biking by improving the pedestrian and bike infrastructure in Brattleboro.

Existing Transportation Network

Road Network

Brattleboro has a total of 84.25 miles of town roads¹ and approximately 22 miles of state and interstate highways. Table 7.1 shows the road classifications and surfaces. The following is a description of some of the major highways and roads that serve Brattleboro.

- **Interstate 91** runs in the north-south direction through Brattleboro. With three exits on the interstate, local traffic can use the interstate as an alternate route to avoid local traffic on Route 5. Brattleboro’s historic development pattern is concentrated east of I-91.
- **U.S. Route 5** travels north-south through the eastern edge of Brattleboro, along the Connecticut River Valley. It is referred to as Putney Road north of the Downtown, Main Street through the Downtown, and Canal Street south of the Downtown. Development along Route 5 consists primarily of commercial uses.
- **State Route 9 (Marlboro Road/Western Avenue/ High Street)** is the main east-west arterial road serving Brattleboro. It is a well-traveled road that serves as a gateway to the Town for those entering from the west as well as those exiting I-91 at Exit 2.
- **State Route 30** connects downtown to the West River Valley. This highway has increased traffic volume during the winter, as several ski resorts are located in towns along Route 30.

The Highway Division of the Brattleboro Public Works Department is responsible for over 30 bridges and large- diameter culverts, approximately 35 miles of sidewalk, 560 culverts, 1,800 drainage basins, and all the connecting drainage pipe. This division also maintains all road signs and street markings along with the roads. For more information on the responsibilities of the Highway Division, see Chapter 10 “Municipal Services & Facilities”.

Table 7.1: Brattleboro road classification and surface

Class	Miles paved	Miles gravel	All miles
Class 1	6.42	0	6.42
Class 2	10.87	3.03	13.90
Class 3	41.79	22.14	63.93
State highways	12.5	–	12.5
Interstate	9.69	–	9.69
Totals	81.27	25.17	106.44

Source: Brattleboro Public Works Department

Impacts of the Road Network

Brattleboro’s transportation network is significantly limited by topography. Steep grades and rolling hills are two characteristics of the local terrain that present barriers to highway design improvements. The Town lacks a continuous street network and has a multitude of poor roadway sight distances.

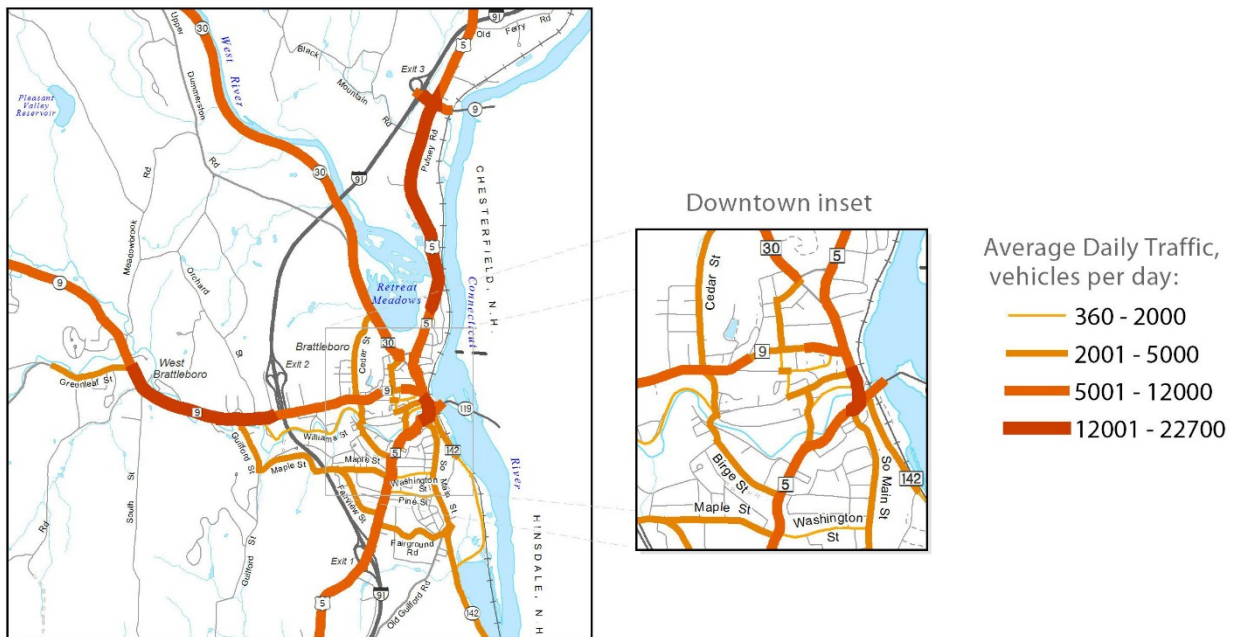
The existing development patterns present a particular challenge for Downtown. Main Street is situated at the confluence of five State Roads: Routes 5, 9, 30, 119, and 142. It is the only direct north-south route in the downtown area. Indirect, parallel routes to and around Main Street do exist and serve as local bypasses, but they are not designed to carry high traffic volumes or larger vehicles, both of which would impact the residential neighborhoods.

The impact of having state highways as main arterial roads in town is large, and therefore actions 7.2.4, 7.3.2, and 7.5.1 of this Plan direct the Town to work with state officials to make sure that Brattleboro’s interests are properly served on these state routes and that impacts are minimized. The State is primarily responsible for upgrades. In 2010, the State repaved Route 5. Bicycle lanes were added on the Putney Road portion of the route. In Downtown, a sidewalk and re-signalization project was undertaken that included installing a traffic signal at the intersection of Routes 5, 142, and 119. While several improvements have been gained from the project, including ADA-accessible sidewalk ramps, traffic congestion is still heavy at certain hours of the day. The Town should ensure that the Downtown provides a safe, pleasant environment for pedestrians when attempting to improve the situation for cars and trucks.

Traffic Volumes and Level of Service

Traffic volumes identify existing travel patterns and assist in determining the transportation system’s ability to serve the area travel demands. Traffic volume data are measured as Average Annual Daily Traffic (AADT), which is the average number of vehicles per day that use a road in both directions at a given point. AADT is shown in Figure 7.1

Figure 7.1: AADT



9 | Historic & Scenic Resources

Goals

- A. Recognize and protect the significant historic, architectural, and cultural heritage of Brattleboro
- B. Protect the visual quality of scenic resources throughout Brattleboro

Policies and Actions

Policy 9.1 Support organizations and property owners that enhance citizen awareness of Brattleboro's history and numerous artifacts

Actions

- 9.1.1 Expand the collection, organization, and preservation of records of historical value related to the town's history, governance, commerce, individuals, and organizations
- 9.1.2 Maintain an inventory of Brattleboro's historic resources
- 9.1.3 Support efforts to expand the number of historic structures and historic districts on the National Register
- 9.1.4 Explore joining the Certified Local Government program

Policy 9.2 Review development projects to ensure minimal negative impact on historic and/or scenic resources

Actions

- 9.2.1 Consider establishing a local historic district
- 9.2.2 Assist applicants with permitting processes and directing them toward financial assistance for historic renovation projects

Policy 9.3 Encourage the adaptive reuse of historic properties

Actions

- 9.3.1 Promote tax incentives, loans, and grant programs to encourage the adaptive reuse of historic structures to meet community and market needs

Planned Road Improvements

The Town works with state, regional, and local officials and agencies; Town departments; and private developers to plan and implement improvements to its transportation system. New streets planned for residential subdivisions or commercial and industrial developments are typically built and paid for by private developers.

The Town has a number of street paving and other improvements currently planned. The Capital Plan also includes local bridge projects. Sidewalk repair and replacement, intersection improvements, and retaining wall projects are also planned. Action 7.5.1 of this Plan is to balance transportation needs with the unique character and quality of life of the neighborhoods affected as transportation projects are undertaken.

The following two projects involving the Vermont Agency of Transportation (VTrans) have been discussed for several years. Whether or not they will be initiated during the life of this Plan is unknown.

Putney Road

In 2005 VTrans hired a consultant to develop solutions that address the transportation and public safety needs along Putney Road from the West River Bridge to just south of the Exit 3 roundabout. The engineering firm Vanasee Hangen Brustlin worked with stakeholders to evaluate three alternatives designed to improve traffic mobility and safety, bi-cycle and pedestrian accommodations, and aesthetics and community character. The end result of the project was the Selectboard endorsement of Alternative 3, which includes:

- Four roundabouts
- Raised landscaped medians to prohibit left turns into and out of adjacent businesses
- Bike lane, grass strip, and sidewalk

A conceptual design has been completed and as of 2017, the engineering work is ongoing. The high cost of construction and the extent of right-of-way acquisition needed for the project just 2 of the variables that could delay the project. It is in the best interest of Brattleboro for the following items to be discussed or revisited early in the process:

- Traffic projections on Putney Road
- Maintenance expectations
- Consideration of the design in light of Complete Streets legislation

Problems with pedestrian safety on Putney Road, however, have not abated, so short-term improvements at a more easily borne cost should be considered to facilitate the safety of pedestrians in both walking along and crossing Putney Road.

Hinsdale Bridge

The replacement of the bridges that connect Brattleboro and Hinsdale remain on the State of New Hampshire's Long Range Transportation Plan. The existing bridges have been classified as functionally obsolete and will eventually be replaced by a single-crossing bridge built south of the existing crossing (which enters Brattleboro on Bridge Street). When a new bridge is finally constructed, traffic flow through this 5-way intersection (Bridge Street/Route 119, Route 142, Main Street, Canal Street, and Co-op parking lot) will likely change, as major traffic will no longer use Bridge Street.

As this project moves forward, the Town has the following concerns: maintenance of the newly built bridge between the Vermont state line and Route 142; use, ownership and maintenance responsibilities of the existing bridges, which are in a deteriorated condition; the traffic impact to the 5-way intersection; and the proximity of a tank farm to the bridge.

Transit Network

In-Town Bus

Southeast Vermont Transit (SEVT) operates The Current bus service which offers both commuter service and in-town bus service. There are three in-town routes, the Red, Blue and White lines. The Brattleboro Transportation Center on Flat Street serves as a hub for both in-town and regional bus routes.

Many residents express a desire for greater transit coverage with more frequent service at the various stops. Transit provision for many parts of town is difficult. Buses must travel long distances to pick up few people at each stop. This can make travel prohibitively long for riders and prohibitively costly for the transit provider. In addition, state and federal funding is limited for new startup bus routes. SEVT periodically reviews their routes to look at ways to enhance the existing service. Action 7.3.2 of this Plan is to continue to work with partners on maintaining existing service and, where possible, increasing service.

Access to transit is a quality-of-life issue, as residents who can access transit are able to participate more fully in the community, access services, and have transportation to work. Elderly, disable and low income populations are less likely to have their own means of transportation and more likely to depend on public or private transit service. Youth are less likely to have access to vehicles for transportation to after-school jobs, educational and extracurricular activities, recreation, shopping, and the like, so are likely to at least occasionally need public or other means of transportation. For these and other reasons, this Plan recommends the continued support of in-town bus service.

Regional Bus Connections

Brattleboro has connections to other parts of Windham County via The Current and the MooVer. The Current has a commuter route from Brattleboro to Bellows Falls with stops along Route 5. Connections further north (Springfield, Chester, Ludlow, White River Junction, Hanover, and West Lebanon) exist but are not timed so as to allow efficient travel. The Moover is a shuttle from Brattleboro to Wilmington with stops along Route 9 and in Marlboro. This service is geared more for commuters coming into Brattleboro from Wilmington and then returning, on a traditional 9–5 work schedule.

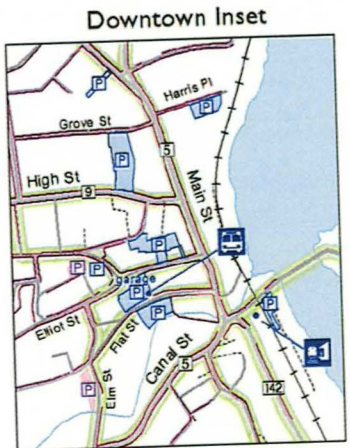
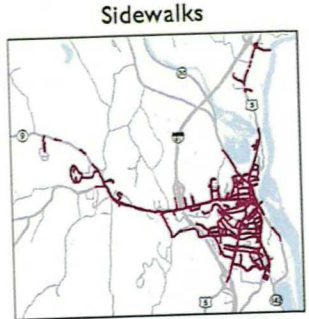
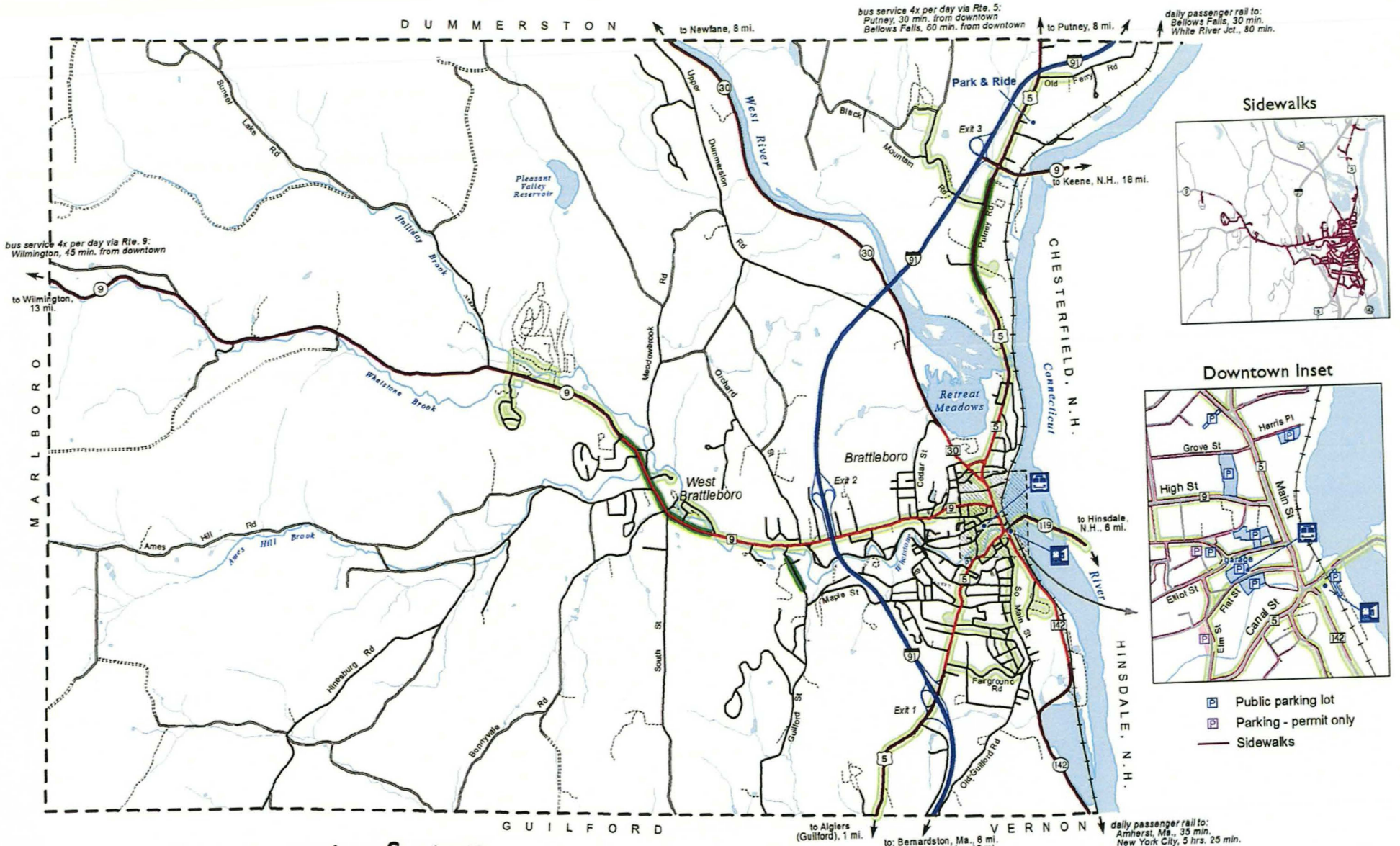
Passenger Rail

Presently, Brattleboro's Union Station is served by Amtrak, which enables passenger rail travel along the New England Central Railroad (NECR) lines. It operates seven days a week, with one northbound and one southbound train each day. Amtrak's Vermonter originates in St. Albans and travels the Northeast Corridor to Washington, DC. Vermont provides a subsidy to Amtrak to support this service north of Springfield, MA.

According to NECR, Amtrak ridership grew by about 4% from 2009 to 2010. Brattleboro saw a 13.3% increase in ridership. Much of the growth in ridership at the Brattleboro station is attributed to a combination of lower rates for in-state travel and aggressive marketing. Actions 7.3.3 and 7.3.4 of this Plan encourage the use of passenger service and support initiatives to improve the rail infrastructure.

In 2012, the Town undertook improvements designed to enhance Union Station. These included the creation of a short-term/kiss-and-ride parking lot for use by passengers traveling on the Vermonter, and safety improvements for people crossing over the train tracks from the parking lot to access the train. As part of this project, riverfront green space was added on the eastern side of Depot Street.

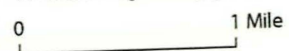
Making improvements to the physical train station remains important and therefore Action 7.3.3 of this Plan is to improve the train station, with projects such as improving the station entrance, providing an inside waiting room, and installing a platform canopy. The train station is a gateway to town for many visitors and therefore welcoming people to town and providing them with information is desired. A user-information



- Public parking lot
- Parking - permit only
- Sidewalks

Existing Transportation System

a detailed road map, with road names, is available at windhamregional.org/gis/road-name-maps



- Federal/State highway
- Interstate highway
- Class 1 town highway
- Class 2 or 3 town highway, paved
- Class 2 or 3 town highway, unpaved
- Class 4 town highway, passable
- Class 4 town highway, impassable

- bus station
- rail station
- bike lane
- in-town bus route
- railroad

Data sources:
 Brattleboro Public Works Department:
 roads, sidewalks, parking
 Windham Regional Commission:
 roads, bus routes, bike lanes, public transit

bus service 4x per day via Rte. 5:
 Putney, 30 min. from downtown
 Bellows Falls, 60 min. from downtown

daily passenger rail to:
 Bellows Falls, 30 min.
 White River Jct., 80 min.

bus service 4x per day via Rte. 9:
 Wilmington, 45 min. from downtown

to Wilmington, 13 mi.

to Newfane, 8 mi.

to Putney, 8 mi.

to Keene, N.H., 18 mi.

to Hinsdale, N.H., 6 mi.

to Algiers (Guilford), 1 mi.

to Bernardston, Ma., 6 mi.
 Greenfield, Ma., 12 mi.

daily passenger rail to:
 Amherst, Va., 35 min.
 New York City, 3 hrs. 25 min.

MARLBORO

DUMMERSTON

GUILFORD

VERNON

CHESTERFIELD, N.H.

HINSDALE, N.H.

West Brattleboro

Brattleboro

Retreat Meadows

Pleasant Valley Reservoir

Ames Hill Rd

Hippaburg Rd

Bonyhale Rd

Guilford St

Maple St

So Main St

Old Guilford Rd

Highburg Rd

South St

Meadowbrook Rd

Orchard Rd

Clear St

Fairground Rd

Elm St

Canal St

High St

Main St

Grove St

High St

Elm St

Canal St

High St

Harris Pl

Grove St

High St

Elm St

Canal St

High St

Harris Pl

Grove St

High St

Elm St

Canal St

High St

kiosk that orients visitors to the downtown setting and directs them to the town's attractions would help achieve this.

Freight System

Trucking accounts for the majority of freight movement in the state of Vermont with Interstate 91 as a major north-south corridor. According to the Vermont State Freight Plan, I-91 in Brattleboro has the highest percentage of truck traffic of all the I-91 segments in Vermont.⁶ And of State-owned highways, Route 9 supports the largest percentage of truck traffic, particularly near Brattleboro.⁷ A significant number of businesses that are involved with interstate commercial transportation are located in Brattleboro. Many have chosen to locate in close proximity to the Interstate due to ease of Interstate access.

Heavy truck traffic does create difficulties along Brattleboro's roads and highways, particularly in the Downtown. There is a fair amount of truck traffic on Main Street, as trucks come and go to industrial areas south of Brattleboro, and tourist areas to the north on Route 30. This is compounded by federal weight limits on I-91. In January 2010, Vermont was part of a pilot project that waived the federal weight limit of 80,000 pounds on interstate highways. The pilot has since expired, but efforts to ease restrictions permanently continue. Trucking activities, while providing a lifeline for local business, can damage quality of life by exacerbating noise and air pollution.

Freight is also moved over the NECR rail lines, which were upgraded in 2012 to handle the national standard railcar weight (286,000 pounds). When combined with a recent improvement to the tunnel in Bellows Falls to allow for double-stacked trains, freight trips are expected to increase by 5,000 per year. Only two active rail spurs exist in Brattleboro (FiberMark and Cersosimo). These are important transportation assets and must be protected when considering future land uses.

This Plan recognizes the importance of freight movement to the community's economy and includes a policy to support state initiatives to improve the freight network and mitigate local impacts.

Brattleboro has approximately 36 miles of sidewalks in varying condition, and at several vital points on arterial roads, missing sections of sidewalk severely impact pedestrian safety. In public outreach efforts for this Plan, sidewalk improvement was most commonly cited by residents as a priority. In 2006, DPW created a sidewalk inventory which has been continuously updated. Some privately owned sidewalks are not included in this inventory.

Key missing, or too narrow, sections of sidewalk on arterial roads reduces pedestrian mobility and the ability to access extensive retail and employment activity. Many actions of this Plan focus on pedestrian improvements in high-activity pedestrian areas. Table 7.5 identifies road segments (listed alphabetically, not priority ranked) whose condition dictates the need for improvement.

In order to improve the sidewalk network, investment and innovative solutions are required. This Plan acknowledges that current annual funding levels for sidewalks in the annual budget are not adequate to make dramatic improvements to the pedestrian infrastructure. Therefore, any increase in sidewalk funding will likely mean a decrease to another part of the budget. The Town will need to continue to leverage other grant funds, and should begin including specific sidewalk projects that are known to be very expensive in the Capital Improvement Plan. This Plan includes a recommendation to continue seeking public or private funding sources to improve the pedestrian and bicycle infrastructure.

Table 7.5: Sidewalk condition assessment of road segments

Segment	Services	Bus service	Notes and recommendations
Canal Street (Fairground to Maple Street)	Stores, residences, schools, hospital, restaurants	No	High traffic and speed. Left turns are difficult. Many driveways. Traffic congestion associated with schools. Improve crossings. Create access management plan. Enhance streetscape.
Marlboro Ave (west of Edward Heights to Sunset Lake Road)	Stores, affordable housing complexes, restaurants	Yes	High traffic and trucks. Sidewalks or multi-use path recommended. Lower speed limit.
Putney Road	Stores, residential, restaurants	Yes	Difficult pedestrian crossings—no crosswalks. Multiple lanes. High traffic and speed. No continuous sidewalk connecting to downtown. Area of minimal shoulder. Traffic calming needed. Fill sidewalk gaps. Improve crossings. Enhance streetscape.
Vernon Street (intersection with Bridge St to Royal Road)	Residential housing complex	Yes (to Morningside Commons)	Gateway to downtown from south. High truck traffic. No continuous sidewalk connecting residences to downtown. No crosswalks. Extend sidewalk. Improve crossing at Royal Road.
West Brattleboro Village	Stores, churches, housing, park, school, restaurants	Yes	High traffic and trucks. Traffic calming needed. Sidewalk extensions. Improve crossings.
Western Ave (Exit 2 to Village)	Residences, park, Farmers’ Market, stores	Yes	High traffic and trucks. High speeds. Poor access control at some driveways. Crossing lacking. No continuous sidewalks. Low shoulder. Obstructions in sidewalk. Variable condition of sidewalk. Improve crossings. Fill in sidewalk gaps.

Bicycle Facilities

Over the past several years, Brattleboro has begun adding striped bike lanes on several high-traffic roads—Putney Road (introduced in 2010), Western Avenue in West Brattleboro Village, and on Guilford Street in the vicinity of Living Memorial Park. Many streets in Brattleboro are wide enough to accommodate bicycle travel along with motorized vehicular travel. Route 30, with its wide paved shoulders, gentle gradient, and views of the West River, is a popular route for bicyclists (although motor vehicle speed is observed as an issue). In most parts of town, it is impractical to provide dedicated bicycle facilities in the road corridor; instead, paved roadway shoulders take the place of bike lanes.

The suitability of bicycling on most roads is dependent on the size of the shoulder, pavement conditions, gradient, and traffic volume and speed. Brattleboro’s major thoroughfares are inadequate and need improvement. The areas listed in Table 7.6 have been identified as important trip generators (employment centers, commercial centers, schools and colleges, and/or more densely settled development).

The placement of bicycle storage in the Downtown and Village areas and at retail and employment locations throughout Brattleboro is important. There is a need to provide a safe location for bicycles to be secured. Action 7.2.3 of this Plan is to improve bicycle storage.

Bicycling is a viable form of transportation that provides health and environmental benefits to individuals and the region as a whole. It is important that bicyclists and motorists know how to safely coexist. This Plan recommends developing a “shared road” system to identify and mark preferred travel routes for non-motorized modes of transportation. Education of cyclists and motorists is also important as the Town improves bicycling infrastructure.

Table 7.6: Bicycle access conditions

Segment	Conditions
Downtown	Busy on street parking Lack of bicycle storage Heavy peak-hour traffic flow
Putney Road	Limited bicycle lane Narrow shoulders (from Main Street over the Veterans Bridge) High volume, high speed Lots of traffic entering and exiting road Faded bicycle lanes
Canal Street	High volume, high speed Narrow shoulders Lots of traffic entering and exiting road
West Brattleboro	Limited striped bicycle lanes Narrow shoulder from I-91 to West Brattleboro Village High volume, high speed
Vernon Road	Narrow shoulders Heavy truck traffic High speed

Shared-Use Paths

Brattleboro has numerous trails, both Town and privately owned (see Chapter 11 “Natural Resources”). However, these trails are unimproved and generally serve a recreational purpose. There are currently two shared-use paths in Brattleboro—the West River Trail and a small portion of the Whetstone Path.

In 2011, 3.7 miles of old railroad bed was acquired by the Friends of the West River Trail. This serves as the lower section of the West River Trail and is a public trail for both recreation and alternative transportation. The ultimate goal of the Friends of the West River Trail is to connect 36 miles from Brattleboro to Londonderry, using the old railroad bed.

The Whetstone Pathway, which could connect downtown to Living Memorial Park and on to West Brattleboro, is a path that has long been identified as desirable to the community. There is a pathway connection and bridge from Main Street to Flat Street constructed in 2005. Since that time, there has been no formal activity (e.g., right-of-way planning, acquiring easements, or construction) to further the pathway. The importance of this trail has been underscored by more recent neighborhood level planning. In 2016 Brattleboro received support from US EPA to develop a resiliency plan for the neighborhood just west of downtown along the Whetstone Brook. The Planning Commission and public strongly endorsed a vision generated by a multi-disciplinary team that showed bike – pedestrian paths opening up the neighborhood to the Brook.

In the early 2000s, the Windham Regional Commission studied the feasibility of creating the Connecticut River Rails-with-Trails, a path to connect Brattleboro with Bellows Falls adjacent to the active rail line. This project has also been inactive at both the Town and regional level. There is continued interest in a shared-use path from Bridge Street to Hinsdale.

Public Parking

Brattleboro operates a parking system in the Downtown. A discussion of the system is in Chapter 10 “Municipal Facilities & Services”. As part of the ongoing planning activities around a downtown master plan the Town retained the services of a consultant to study downtown parking conditions.

To encourage carpooling, the Town created a 21-space park-and-ride lot in 2007, a commuter lot located at Browne Court off Putney Road. It was constructed with financial assistance from VTrans.

FOOTNOTES

¹ Excluding Class 4 and Legal Town Trail Mileage.

² Vermont Agency of Transportation, 2010, *Continuous Counter Grouping Study and Regression Analysis Based on 2010 Traffic Data*, www.aot.state.vt.us/Planning/Documents/TrafResearch/Publications/Redbook2010.pdf.

³ The State fiscal year begins on July 1 and ends June 30 the following calendar year. For instance, Fiscal Year 2006 begins July 1, 2005, and ends June 30, 2006.

⁴ The Brattleboro Study Area consisted of the following Census block groups: 968400 1, 968400 2, 968400 3, 968400 4, 968600 1, 968600 2, 968600 3, 968500 1, 968500 2, 968500 3, 968500 5.

⁵ The American Community Survey (ACS) is based on a sample survey and intended to describe the characteristics of the population, not to provide population counts.

⁶ *Vermont Freight Plan Draft Technical Memorandum*, www.aot.state.vt.us/planning/Documents/Planning/VermontFreightPlan_Task3_19032010.pdf.

⁷ *Ibid.*

8 | Arts and Culture

Goals

- A. Promote public appreciation, participation, dialogue, and support for the invaluable contribution that arts and culture makes to Brattleboro's economic vitality and quality of life
- B. Create a sense of community through the expansion of arts and cultural opportunities in the community
- C. Strengthen arts organizations
- D. Nurture the integration of art, architecture, and landscape architecture in Brattleboro
- E. Build a strong and viable arts and creative industries sector

Policies and Actions

Policy 8.1 Support the creation of prominent art activities, events, and art installations

Actions

- 8.1.1 Develop a list of technical assistance resources for artists
- 8.1.2 Leverage existing resources to foster a supportive and productive environment for local artists
- 8.1.3 Encourage partnerships that will provide development and capacity building training for cultural arts organizations and individual artists

Policy 8.2 Build on the arts and cultural assets to establish a positive image and business environment.

Actions

- 8.2.1 Support signature events and festivals
- 8.2.2 Encourage businesses to incorporate art in their developments.
- 8.2.3 Make information on the economic impact of the arts and creative industries in Brattleboro available to the public

Policy 8.3 Enhance public spaces through public art and other placemaking initiatives.

Actions

- 8.3.1 Incorporate art, culture and place making in community master plans (e.g., Downtown Master Plan)
- 8.3.2 Support the temporary re-use of vacant and/or underutilized spaces for art production, exhibitions and murals. Consider developing a set of pilot projects and writing guidelines that support pop-up installations and events in the public realm.
- 8.3.3 Integrate art into infrastructure projects
- 8.3.4 Continue to provide arts programming at the library and look for ways to expand it.
- 8.3.5 Evaluate ways to fund public art

For the purposes of this Plan, the terms “arts and culture” are defined in the broadest context, to include the visual, literary, performing (music, dance, and theater) and media (film, video, sound recording, animation) arts. Brattleboro recognizes the importance of arts and culture in defining the character of the community; promoting economic vitality; creating rich educational opportunities; and sparking innovation. Both the tangible and intangible benefits of arts and culture help make Brattleboro a desirable community in which to live and work. Therefore, the fostering of arts and culture is important to our quality of life.

Artistic and Cultural Identity

Brattleboro is widely regarded as a hot spot for the arts. Brattleboro's rich arts and culture sector comprises many remarkable individuals and organizations that cover a wide array of performing, literary, and visual arts organizations, performance venues, galleries, and museums, and a strong community of independent artists and craftspeople. Festivals such as the annual Brattleboro Literary Festival, film festivals and the Southern Vermont Dance Festival attract residents and visitors and help enhance Brattleboro's reputation as a creative community.

There are a wide range of arts and cultural organizations and facilities in Brattleboro. The Latchis Theater, New England Center for the Circus Arts, Brattleboro Music Center, Brattleboro Jazz Center, New England Youth Theater, and Brattleboro Museum & Arts Center are prominent performing arts venues in Brattleboro. Educational facilities (private and public), municipal facilities, religious institutions, private-owned galleries and artist studios add to the arts spaces in Brattleboro. *An Atlas of Cultural Assets* documents the cultural landscape of Brattleboro and takes a snapshot in time approach to inventorying cultural assets and venues.¹

An important part of Brattleboro's social capital is the high number of people involved in creating art. Art is happening all over town – not just in the galleries and performance spaces that are visible to the passerby; but in homes and neighborhoods. Brattleboro is a vibrant, artistic community.

Arts Benefits

Measuring the impact of the arts and cultural institutions is difficult, as there are numerous methodologies with which to study it. A recent study, *Economic Footprint of the Arts in Vermont*, looked at the economic contribution of employment (including self-employment), compensation (including wages and benefits), and tax impact of the arts sector in Vermont.² The study revealed that art industries employ an estimated 4,342 people and generate \$19,438,480 in state and local tax impacts.³ The employment figures indicate that the arts provide more direct employment than many well-known Vermont industries such as food manufacturing (4,227), machinery manufacturing (2,900) and wood product manufacturing (1,992).

In 2011, several arts organizations in Windham County participated in a nationwide study conducted by Americans for the Arts. The study found that the 39 participating nonprofit arts organizations in greater Brattleboro spent roughly \$7.6 million in 2005 and leveraged an estimated \$3.2 million in additional spending by arts audiences.⁴ The report found that nonprofit arts and culture event attendees spent an average of \$20.94 per person per event, excluding the cost of admission. This is spending that supports the revenues of restaurants, hotels, retail stores, and other businesses. The economic impact of cultural industries becomes even more significant if one includes for-profit groups such as independent artists, craftspeople, filmmakers, musicians, writers, and photographers, whose contributions are not included in this report.

Brattleboro has a strong industry cluster in Arts, Entertainment, Publishing and Broadcasting. This cluster consists of business involved in the management, sale, distribution, and production of visual and performing arts and communications media. This is reflected in the existing of the *Brattleboro Reformer* and the *Commons*, other media, including BCTV and local radio stations, and also an impressive number of arts management organizations and non-profit institutions with an educational message. Many more artists and

creative workers are less visible. Brattleboro can build on the growing economic contributions of the creative sector.

Research shows that the arts are an important tool for developing an attachment to place, nurturing creativity, building critical thinking skills, and developing intellectual capacity and sensory function. Brattleboro's youth have repeatedly stressed the importance of arts to their educational experience. Ensuring high quality arts education in the public schools is critical to enriching and enabling children and young adults' lives.

Recent National Endowment for the Arts reports show that art attendance by older adults has been increasing. They also note that researchers have identified positive changes in health and psychological well-being among older adults who routinely engage with arts activities when compared with those that do not.

The arts are essential not only in their contribution to our quality of life, but also in their enrichment of our cultural engagement. Arts and cultural experience can play an important role in bridging differences between people.

Municipal Contributions

Brooks Memorial Library is an essential cultural institution for Brattleboro. The print, digital, and fine arts collections are an important resource for the community. Cultural programming, events, art exhibitions and reduced rate museum passes help to make the arts and cultural events accessible to the public.

The Town has demonstrated support for the arts in Brattleboro. In 2008, the Town Arts Committee was formed. This Committee has been an important bridge between the arts and cultural community, the community-at-large, and town government. They have been active in promoting opportunities for art in the public realm.

The Selectboard adopted a public art policy in 2009. According to the policy, public art is "publicly accessible original art that enriches the town and evokes meaning. It may include permanent visual art, performances, installations, events, and other temporary works. Public art should consider the site, its context, and audience. Public art may possess functional as well as aesthetic qualities; it may be integrated into the site or exist as a discrete work." This Plan supports the maintenance of this policy.

The Town also owns Union Station, now home to the Brattleboro Museum and Arts Center (BMAC) for the operation of an arts center and museum. BMAC (a nonprofit organization) is responsible for the operation and maintenance of this space. BMAC is currently fund-raising to expand their operation to the north of Bridge Street.

Investing in the Future

The Town can leverage our limited resources and relationships to strategically build local capacity and lead by example to strengthen the cultural life in Brattleboro. Such actions can include:

- Continue to celebrate the library as an arts and cultural resource for the community. The fine arts collection should be managed so that it is preserved, cataloged and displayed (either in the library or in other spaces). Continuing to support cultural programming and strengthening partnerships with artists to provide programming to the community will help the library to serve as an arts incubator. Ideas such as creating an art maker space with tools and inspirational materials can help to cultivate community art.
- Plan for public art in area-wide plans (e.g., Downtown Master Plan).
- Increase public art by continuing to integrate public art into infrastructure. Investigate Percent for Art programs as a way to bring more art into public realms. This type of program is used across the country and

typically come in the form of an ordinance that require a fee (usually a certain percentage of the project cost) on large development projects in order to fund and install public art. That percentage is typically between 0.5% and 2%

- Partner with local artists to foster performances in public spaces. Cultural programming can help activate public spaces, promote social cohesion, improve neighborhood safety and make arts accessible in the community.

FOOTNOTES

¹Gregg, Willie; Loughrey, Olivia; and Smith, Kimberly. *Brattleboro: An Atlas of Cultural Assets*. Town of Brattleboro & The Arts Council of Windham County. 2013.

²This study looked only at artists, museums and historic sites, arts promoters and agents, and performing art companies.

³Main Street Landing. *The Economic Footprint of the Arts in Vermont*. (November 2010).

⁴*Arts and Economic Prosperity IV: The Economic Impact of Nonprofit Arts and Cultural Organization and Their Audiences in Windham County*. For more information about this study or about other cultural initiatives in Windham County, visit the Arts Council of Windham County's website at www.acwc.us.

Brattleboro enjoys the presence of many historically important structures. These resources enrich and enhance our community, build civic pride, and help define our identity. Maintaining, restoring, and re-using historic proper- ties can preserve neighborhood character, help protect the tax base by maintaining value, and attract businesses and households that are looking for communities with a high quality of life, a sense of pride, character, and historic and cultural richness. Brattleboro’s outstanding scenic resources include natural landscape features—rolling topography, water features, forests, and wildlife—and cultural landscape features such as farm buildings and historic architecture. Brattleboro’s scenic resources are highly valued by residents and visitors alike and therefore merit special attention and consideration. It is important that these historic and scenic resources are considered in land use decision-making. This chapter identifies Brattleboro’s historic and scenic resources and the protection and preservation policies in place today, and looks at how to protect and preserve them for the future.

Historic Resources

Downtown

The heart of Brattleboro remains its downtown, one of the best preserved 19th-century downtown areas in Vermont. Most of the downtown was entered into the National Register of Historic Places in 1983. Main Street showcases approximately 170 years of architectural styles, shapes, and ideas. It is anchored at each end by small parks. From the Wells Fountain at the north end to the former railroad station at the south end, the downtown area includes many well-preserved and visually interesting 19th- and 20th- century buildings. The area was first developed some 200 years ago, and as the buildings were constructed primarily of wood, most were subsequently destroyed by fire. While the present downtown is only 70–150 years old, a majority of the buildings are included in the National Register of Historic Places.

A number of important houses dating from as early as the 18th century can be found in town. The Planning Services Department maintains a binder with all of the Town’s National Register applications for historic buildings and districts that are included on the National Register of Historic Places. This binder includes detailed information on each asset and its significance. This Plan recommends that the Planning Services Department maintain this information, as it is an important resource for the community.

West Brattleboro

In 2002, the West Brattleboro Green Historic District was listed on the National Register of Historic Places. The district is comprised of a cluster of well-preserved 19th-century buildings around a small triangular green. In 2006, when the West Brattleboro Master Plan was developed, the Village’s traditional architecture was identified by residents as the single most important physical resource in West Brattleboro. The Village’s traditional residential architecture is largely characterized by versions of Federalist, Italianate and Colonial Revival, Greek Revival, and Gothic Revival architectural styles. Modestly steep, gabled roofs on top of two-and-a-half-story wood-framed and clapboard-sided structures are the norm.

Other Historic Resources

Brattleboro contains many historic neighborhoods and sites, all of which contribute to the Town’s character. The Clark-Canal Neighborhood, Swedeville, and Esteyville have strong, identifiable characteristics. Although these neighborhoods have changed over time, many of the aesthetic qualities that made these areas special remain in place to- day, and merit continued recognition and protection.

Brattleboro’s industrial heritage is well documented, with numerous historic structures and buildings relating to industry and technology throughout town. Originally, many of the downtown buildings were used for industrial purposes, but they have since been converted to commercial and residential uses. Some historic buildings outside downtown include the Estey Organ Factory, Berkshire Fine Spinning Associates (Cotton Mill Hill), and Daly Shoe Factory.

Prior to the arrival of European settlers, Vermont was home to the Abenaki. A significant archaeological find

from this period was discovered in 2015 - a petroglyph on an underwater rock ledge near the confluence of the West River and the Connecticut River. This rock carving is one of two significant examples of petroglyphs in Vermont and is similar to those found in Bellows Falls. The precise meaning behind the petroglyphs is not known, but many suggest that the carvings may indicate important ceremonial sites where life and afterlife were celebrated. Efforts are underway to preserve undeveloped parcels adjacent to and abutting the petroglyphs.

The Vermont Division for Historic Preservation has identified other significant archaeological sites in Brattleboro: one in the Fort Dummer Park; one on the Connecticut River behind Adair Heights; and along the West River where an old cement bridge was once located.

Recreational sites also serve as important resources. The Brattleboro Common has a long history of being a social gathering spot. Presidents have spoken here; concerts have been given, plays performed, and other social activities held here. The Common includes a Civil War monument and a memorial to all who served in wars. Harris Hill's first ski jump was built in 1922, and soon afterward state and national championships began being held at the site. The original jump has been replaced, but ski jump competitions are still held and are the highlight of the annual Winter Carnival.

Historic Preservation

Historic preservation activities in Brattleboro not only promote an increased appreciation of the past, they are a key feature of successful community planning and economic development because of the benefits in improving neighborhoods, attracting investment, and supporting tourism. Brattleboro's property owners have proved their interest in, and commitment to, preservation. In recent years, it has been the private sector that has provided the necessary support to ensure that the Town's historic resources remain an integral part of everyday life.

Several property owners have taken advantage of both federal and state rehabilitation tax credits for use on income-producing buildings. Recent examples of properties that have used these tax credits include rebuilding of the Wilder Block after a fire, rehabilitation of the Cutler Block with office and retail space, and the creation of rental housing units at several properties developed by the Windham & Windsor Housing Trust.

Several properties—Latchis Theater, Retreat Farm, and the Goodenough and Cobblestone Houses—have taken advantage of preservation easements. The easement, which is held by an outside organization, ensures that the features are protected regardless of who owns the building.

The Town continues to participate in state programs that result in "designations." The benefit of these programs is that a variety of tax credits, grants, training, and technical services are made available to help revitalize downtowns and village centers. West Brattleboro Village is a Designated Village Center and the downtown is a Designated Downtown. Downtown Brattleboro Alliance is the local Downtown organization that works to preserve and revitalize the historic Downtown. Commercial buildings in these designated districts are eligible for state tax credits for general rehabilitation, code compliance, and exterior improvements.

Scenic Resources

While some of Brattleboro's scenic resources are built or natural landmarks, others are scenic vistas encompassing private land, and these are also a prominent amenity. Thus, there is no guarantee that all of the remaining scenic vistas will remain so in the future. The Natural Assets map included in Chapter 12 "Land Use" identifies scenic areas that are particularly noteworthy. This is not intended to be a comprehensive list of such areas, though it includes those most often mentioned.

Community conveys character best when dense settlement is clearly delineated against a backdrop of open space of natural interest, rather than when patchy, low-density sprawl diminishes the natural amenity. Brattleboro can help to protect the scenic views that serve as gateways to the Town. As people enter

Brattleboro, the scenic quality of the immediate surroundings greatly influences the observer's impression of the Town as a whole. Travelers on Route 30 are treated to beautiful views, including the agricultural setting of the Retreat Farm and the open waters of the Retreat Meadows. The rolling fields straddling Interstate 91 just south of the bridge over the West River provide scenic vistas of open fields and forested lands. Farther north on I-91, views of the rolling farmland off of Old Guilford Road provide a similar agricultural context. Entering Brattleboro from the west on Route 9, views from the valley floor of the wooded hillsides, consisting of mixed hardwood and softwood trees, form a backdrop and give a sense of scale to both resident and visitor.

Other areas recognized as important include: the Connecticut River; the West River and the forested western edge visible from I-91 and along the Route 30 corridor; open lands along the Whetstone Brook; and views of Round Mountain and Ginseng Hill. An often-cited scenic resource visible from Downtown is the forested view of Mt. Wantastiquet. Viewsheds are vistas that can be delineated and protected through land use regulation.

Scenic Byways

Brattleboro is situated along two scenic byways. The Connecticut River Byway was designated a National Scenic Byway in 2005. This designation recognizes American roads and places known for their scenic, historic, recreational, cultural, and archeological qualities. The Byway consists of 498 miles of roads in Massachusetts, Vermont, and New Hampshire and includes Route 5 in Brattleboro.

The Molly Stark Byway stretches 48 miles along Route 9, anchored by Brattleboro and Bennington. It was designated a Vermont State Scenic Byway in 2003. Obelisks featuring local history were installed along the Byway, with two located in Brattleboro.

Protection of Historic and Scenic Resources

Most historic resource protection programs in Brattleboro have been accomplished through voluntary efforts. Interested citizens and the Town have initiated certain programs, such as historic site and district nominations, and rehabilitation programs. Local voluntary efforts have resulted in the plaques seen on many historic houses on Western Avenue. Voluntary acts of preservation are encouraged and action 9.2.4 of this Plan directs the Planning Department staff to both assist applicants with pertinent permitting processes and direct applicants toward financial resources.

Preservation groups are actively involved in historic inventory, education, and protection efforts. The Brattleboro Historical Society, founded in 1982, has been involved in a number of activities, including collecting and organizing historical artifacts, researching historical records, sponsoring educational programs and tours, and making contributions to the Town Plan. The Estey Organ Museum (EOM) was formed in 2002 to preserve and interpret the legacy of the special contributions of the Estey Organ Company (EOC). EOM sponsors events; serves as a reference center for information about the EOC; and has a collection of organs and related materials, some of which are on view at the EOM, located at the Estey Organ Factory Complex.

As noted, Brattleboro has several historic structures are listed on the [National Historic Register](#). This listing primarily acknowledges the historic and/or cultural significance of a property or district—it does not afford protection from actions such as demolition, incompatible additions, or changes to the façade when they are funded by a private property owner. Brattleboro's rich inventory of largely intact buildings remains and is worthy of protection.

In 2015, a Historic Resource Overlay District was adopted as part of the Land Use Regulations. This overlay encompasses all of the National Register Historic districts in Brattleboro and regulates exterior modifications to contributing historic structures and requires new construction to be compatible with their historic settings. However, depending on the National Register Historic districts means that a lot of important historic structures and districts are not protected.

The delicate balance of preserving historic structures and individual property rights can be a challenge; a local historic district is designed to balance the two. Establishing a local historic district demonstrates that there is a public purpose in preserving the exteriors of privately owned buildings. The cultural value extends beyond the district. Property owners within the district obtain an assurance that their sensitive stewardship of an important building will not be undermined by the actions of other private property owners.

Brattleboro's Land Use Plan and regulations are designed to reinforce the scenic quality of the landscape by focusing development in the Downtown and Village Center and by preserving the rural character of the outlying areas. Consideration of scenic and historic resources is incorporated in the development review process in a number of ways. Site Plan criteria govern exterior lighting to ensure that it is shielded and not projecting off-site; ensure proper landscaping and screening; and require consideration of building design and siting in certain Zoning Districts. Additional regulatory tools include conservation subdivisions, design guidelines, and the preservation of trees on steep hillsides are also included in the Land Use Regulations. In the Land Use chapter of this Plan, the scenic resources noted in this chapter have been considered in determining the desired future land use scheme (see Chapter 12 "Land Use").

Brattleboro could benefit from becoming a Certified Local Government (CLG). The goal of the Certified Local Government (CLG) Program is preservation through partnership. Local, State, and Federal governments work together to help communities preserve and increase awareness of their unique cultural heritage. A CLG certification opens doors to grant funding and technical assistance from both the Vermont Division of Historic Preservation and the National Park Service for preservation activities such as national registration nominations, architectural, historical and archeological surveys, documentation of oral histories, and other activities.

10 | Municipal Facilities & Services

Goals

- A. To provide municipal facilities and services to ensure the public's health and safety, and to improve the quality of life in Brattleboro
- B. To foster orderly and fiscally sound development of Brattleboro

Policies and Actions

Policy 10.1 Provide effective police and fire services throughout town

Action:

- 10.1.1 Assess the impact of new development on the town's fire protection and ensure that it is addressed in any development review process.
- 10.1.2 Pursue grant opportunities for equipment and training to augment the town's financial contribution to the police and fire departments.

Policy 10.2 Maintain a public water and public wastewater system that meets state and federal standards, and provides for the future development needs of the town

Policy 10.3 Improve stormwater management

Actions:

- 10.3.1 Evaluate the feasibility and options for establishing a separate stormwater-services enterprise fund or program
- 10.3.2 Work with property owners to address stormwater issues and infrastructure needs

Policy 10.4 Require that land use practices and development projects are consistent with the Town's vision and future planning strategy

Actions:

- 10.4.1. Adhere to the goals and policies of the Town Plan—particularly those that address land use and development, transportation, and municipal facilities and services
- 10.4.2 Develop a process to coordinate the adoption of future Capital Improvement Plans (CIPs) with consideration of the Town Plan

Policy 10.5 Utilize developer agreements to ensure that private developers pay for any burden their development places on the Town's public service and infrastructure; agreements shall identify how the development will assist the Town to finance, develop, and maintain new and existing facilities and services, such as:

- Passive and active parks and public spaces
- Potable water, sanitary sewer, and stormwater infrastructure systems
- Transportation infrastructure, including roads, sidewalks, and/or bicycle infrastructure
- Public safety infrastructure required for a development (e.g., fire hydrants, extensions of the municipal fire alarm system, etc.)

Policy 10.6 Locate and maintain public facilities and services to support the goals of compact growth, neighborhood revitalization, and sustainable new neighborhood design

Policy 10.7 Support efforts to maintain and enhance the library

Actions:

- 10.7.1 Continue to explore grant opportunities to enrich the library's collections
- 10.7.2 Explore ways to maximize the benefits of the fiber optic network

Policy 10.8 Provide a variety of recreational opportunities for residents of all ages and abilities

Actions:

- 10.8.1 Promote recreational activity with appropriate and adequate access by all age and user groups
- 10.8.2 Foster continued cooperative use of facilities and fields with the school districts

Policy 10.9 Encourage pride and sense of ownership of parks and miniparks through facilities that are well maintained, landscaped, and programmed

Actions:

- 10.9.1 Develop a Parks Master Plan to provide a long-term vision for future development and programming of park space
- 10.9.2 Support civic and garden clubs/organizations in beautification projects

Policy 10.10 Use parking technologies that offer customers and policy-makers the maximum flexibility

Policy 10.11 Continue efforts to reduce waste generation and provide environmentally sound waste disposal opportunities

Brattleboro provides a wide variety of services to residents and visitors alike. These include public safety, water, sewer, roads, parks, and libraries. As a regional center, many people from outlying towns rely on Brattleboro for access to work, recreation, education, healthcare, and social activity. As a result, our infrastructure and services respond to the needs of residents, commuters, and tourists. A core function of local government is to provide services, facilities, and infrastructure to meet community needs. An important function of the Town Plan is to review accessibility, availability, condition, and capacity of municipal facilities, services, and infrastructure to meet the current and projected needs of the Town. The purpose of this chapter is twofold: (1) identify the facilities and services that underpin civic life in Brattleboro, and (2) provide an assessment of existing community facilities and programs, and their impact on the community. The Public Safety, Municipal Facilities, and Educational Facilities Maps and the Parks and Recreation Map show the location of these facilities.

MUNICIPAL ADMINISTRATION

A Town Manager directs the day-to-day operation of local government, oversees the administration of town services, and appoints most town employees. The Town Manager is appointed by and reports to the Selectboard. Town employees and elected and appointed boards, commissions, and officers provide a variety of local government services.

Municipal Center

The Municipal Center serves as the administrative offices for much of Town government. Situated on Main Street, the building houses the offices of the Town Manager, Town Clerk, Treasurer, Tax Collector, Assessor, Finance Department, Planning Services Department, Brattleboro Community Justice Center, and Emergency Operations Center. It provides meeting spaces for various boards and committees. Several offices on the second and third floors are rented to other agencies. Other municipal facilities are located in several other locations, and the services they provide are discussed later in this chapter.

Municipal Finance

The ongoing challenge of funding municipal services is currently heightened by the demographic profile (an aging population with no growth), negative impact of national and regional economic cycles on municipal revenue growth, and the rising costs of delivering quality services. These budget drivers are discussed further below, as they set the context for decisions made on municipal services and infrastructure:

- From 1950 to 2010, Brattleboro's population has increased from 11,522 to 12,046. This represents a change of only 4.5% in 60 years. For the last two decades this growth has been particularly slow. While population growth can bring its own costs, a static (aging) population limits local market growth (including real estate), which in turn means little or no growth in commercial and residential property tax revenues.¹
- Infrastructure and utilities are in constant need of maintenance and, in some cases, upgrading (to meet new regulatory standards or community expectations). In a low-growth environment there is little impetus to comprehensively plan infrastructure expansion and little fiscal ability to take on large-scale projects. This low level of activity can become self-reinforcing over time, so it remains critical to comprehensively plan for the maintenance of the quality of the existing infrastructure. While difficult to avoid, constantly deferring capital investments in infrastructure is not a prudent way to manage assets.
- Over the past several years, Brattleboro has made a concerted effort to increase the General Fund's unassigned fund balance. This balance was \$2,454,139 as of June 30, 2017, which represents 12.4% of the General Fund's 2017 fiscal year expenditures. An adequate undesignated fund balance is important

because, apart from prudently setting aside funds for unforeseen expenses, an appropriate reserve can reduce the cost of borrowing.

- Brattleboro's property taxes are currently higher than most surrounding communities. A previous study from 2002 by Vermont Natural Resource Council and Vermont League of Cities and Towns shows that Vermont's traditional centers do have higher taxes than the surrounding rural communities. Investments in up-grading and maintaining infrastructure to serve residents, commuters, and visitors from surrounding towns appear to be one of the contributing factors to somewhat higher property tax burdens. Vermont's regional centers serve a unique role in sustaining the traditional settlement pattern of the state—small villages surrounded by rural working landscapes—by containing sprawl and facilitating commerce and social activity in accessible well serviced centers. Updating past investigations of the fiscal burden confronting regional centers in the state is needed to inform policy actions designed to sustain communities such as Brattleboro.
- Consideration should be given to developing mechanisms to evaluate the burden that economic development causes on the need for municipal services, and to developing tools that will enable the Town to raise additional revenues to pay for municipal services in a manner that does not unduly burden Brattleboro's residents and taxpayers.

All these factors will challenge Brattleboro in the coming years. Tough decisions will need to be made on capital expenditures and on whether or not existing service levels can be maintained. Commitments made to municipal services have long-term financial implications. The link between the municipal service provision and property tax rates needs to be better understood by all stakeholders and voters.

PUBLIC SAFETY

The Brattleboro Police Department and Fire Department are the principal agencies addressing public safety needs in the Town. Both departments depend on the Central Dispatch center to answer emergency calls and dispatch the appropriate department. Rescue, Inc., a private nonprofit agency, provides ambulance service.

Police Department

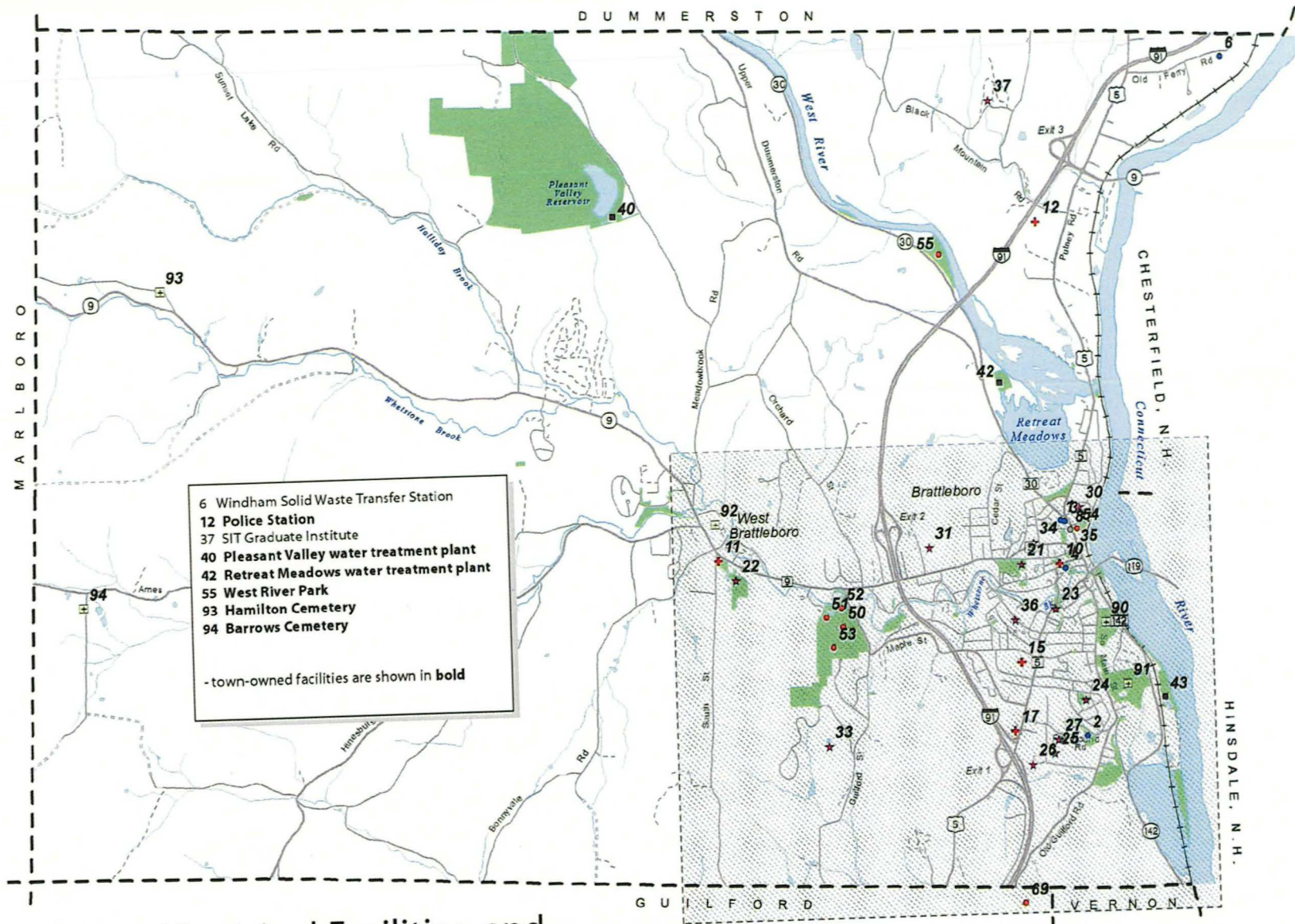
The Brattleboro Police Department is open 24 hours a day, seven days a week. Aside from traditional law enforcement and investigation functions, the Department also addresses social service needs such as homelessness, substance abuse, and mental illness and offers several community service programs, such as Brattleboro Cadets, for youth interested in pursuing law enforcement. The Police Department is currently located on Black Mountain Road, in a building that was retrofitted for the department in 2017.

Brattleboro Central Dispatch handles services for all public safety calls, including Police, Fire, Rescue, Inc. (ambulance), and the Public Works Department. It is located within the Police Department. It also provides the infrastructure for a mass communication system (Brattleboro Emergency Notification System) that allows the town to transmit emergency notifications to residents and businesses by telephone and email.

Fire Department

The Brattleboro Fire Department provides 24-hour coverage with full-time firefighters that are certified Emergency Medical Technicians (EMT). The Fire Department's duties range from fire suppression and prevention to fire and health code inspections, issuing burn permits, hazardous material response, public education, intervention for juvenile fire setters, investigations, and water and ice rescue operations. Several department personnel serve as part of Brattleboro's Emergency Management Team.

The Department operates out of two stations. Central Fire Station, located on Elliot Street, serves as the



6 Windham Solid Waste Transfer Station
 12 Police Station
 37 SIT Graduate Institute
 40 Pleasant Valley water treatment plant
 42 Retreat Meadows water treatment plant
 55 West River Park
 93 Hamilton Cemetery
 94 Barrows Cemetery

 - town-owned facilities are shown in bold

Public Safety, Municipal Facilities, and Educational Facilities - Map 1

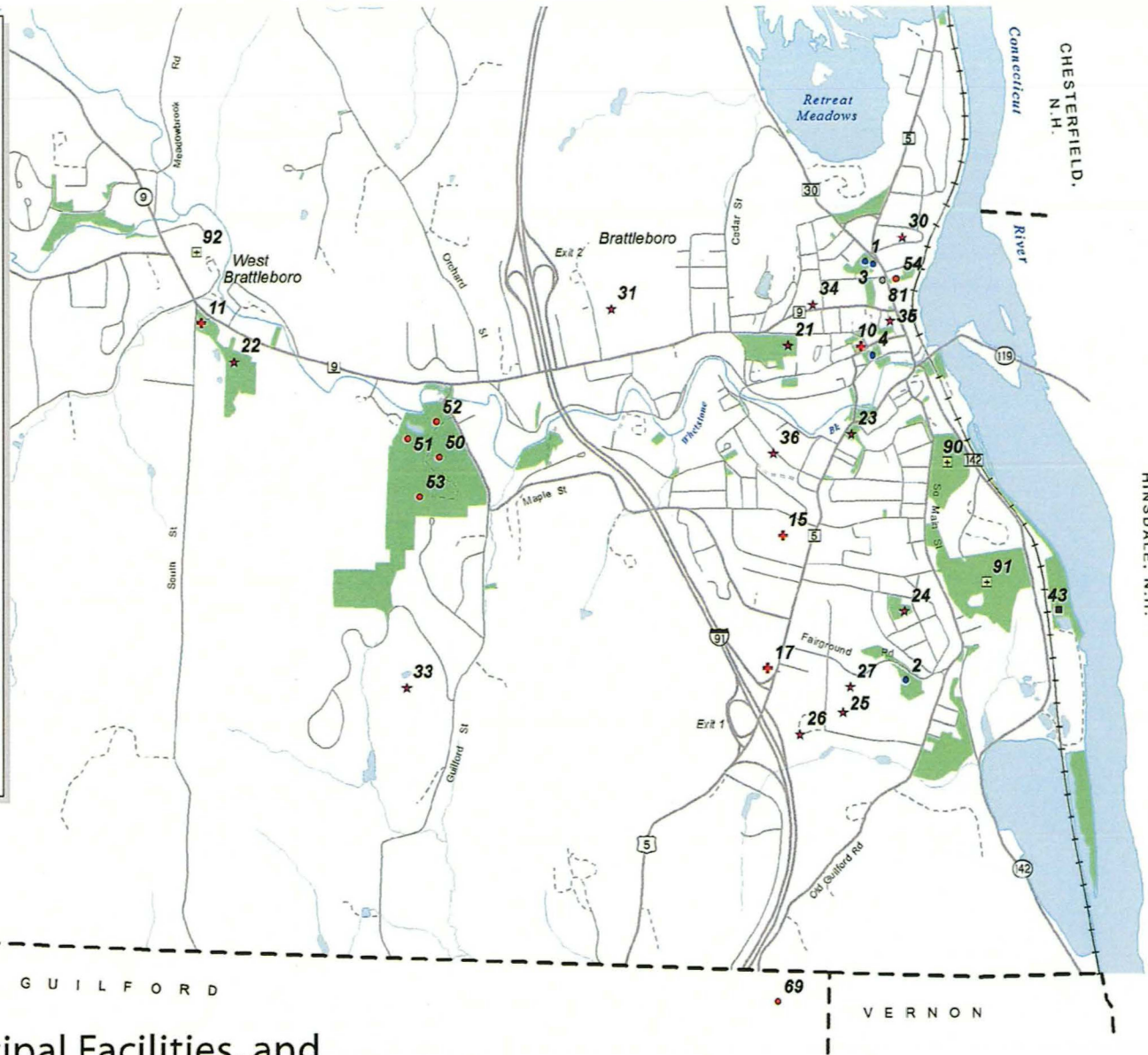
0 1 Mile

- municipal services
- ✚ public safety/health services
- ★ education
- ⊠ cemetery
- parks/recreation
- utility
- other
- Town-owned land

Data sources:
 Windham Regional Commission;
 facilities as identified by Brattleboro's
 Planning Service Department
 Cartographic Associates, Inc;
 parcel boundaries of town-owned land

- 1 Municipal Center
- 2 Department of Public Works
- 3 Brooks Memorial Library
- 4 Brattleboro Transportation Center
- 10 Central Fire Station
- 11 West Brattleboro Fire Station
- 15 Brattleboro Memorial Hospital
- 17 Rescue Inc. (ambulance service)
- 21 Green Street School
- 22 Academy School
- 23 Canal Street School
- 24 Oak Grove School
- 25 Brattleboro Area Middle School
- 26 Windham Regional Career Center
- 27 Brattleboro Union High School
- 30 St. Michaels School
- 31 Neighborhood Schoolhouse
- 33 Hilltop Montessori School
- 34 Community Schoolhouse
- 35 Comm. College of Vt/Vt. Tech. College
- 36 Vermont Adult Learning Center
- 43 wastewater treatment plant
- 50 Living Memorial Park
- 51 Nelson Withington Skating Rink (LMP)
- 52 LMP pool
- 53 Kiwanis picnic shelter (LMP)
- 54 Gibson Aiken Center (rec, parks, senior ctr)
- 69 Fort Dummer State Park
- 81 Post Office
- 90 Prospect Hill Cemetery
- 91 Morningside Cemetery
- 92 Glen Cemetery

- town-owned facilities are shown in bold



Public Safety, Municipal Facilities, and Educational Facilities - Map 2

0 1 Mile

- municipal services
- parks/recreation
- + public safety/health services
- utility
- ★ education
- other
- ☒ cemetery
- Town-owned land

Data sources:

Windham Regional Commission:
 facilities, as identified by Brattleboro's
 Planning Service Department
 Cartographic Associates, Inc.
 parcel boundaries of town-owned land

Department's headquarters and main facility. The station was originally built in 1947 and was recently renovated and expanded in 2017. The West Brattleboro Station is located on South Street in West Brattleboro Village, built in 2017, this modern facility replaces a smaller station dating from the 1960s. Personnel are dispatched from there as first responders for emergencies in West Brattleboro.

Rescue, Inc.

This nonprofit organization provides emergency medical and ambulance services for Brattleboro residents. It operates from an ambulance facility on Canal Street, near Exit 1. Rescue, Inc. is overseen by a Board of Trustees comprised of one representative from each community in the service areas (Rescue Inc. currently provides service to 15 towns and 9 additional representatives. Support for Rescue, Inc. comes from Town allocations, subscription memberships, and fundraising. Services are paid for by either insurance or self-pay.

PUBLIC WORKS DEPARTMENT

Public Works comprises three divisions: Utilities, Highway, and Maintenance. The Highway Division is responsible for maintaining and overseeing Town roads, parking lots, bridges, dams, and sidewalks. The Utilities Division is in charge of repair and maintenance of both the water delivery and sewer collection systems. The Maintenance Division is responsible for the upkeep of the heavy machinery that is used by the Public Works Department. This Division is staffed by employees trained in truck maintenance and welding who primarily work out of the Public Works facility.

The Public Works Department facility is located on Fairground Road. The 18-bay facility was built in 1950 and is located on a 4.9-acre site. There are approximately 27 people working out of this location, including administrative employees. The facility contains administrative offices, equipment and vehicle repair spaces, storage facilities, a salt storage shed, and a fueling station. There is need for more administrative office space and storage space at the Fairground Road site. This is necessary to address the working conditions in the maintenance facility as well as for file and map storage needs.

HIGHWAY DIVISION

This Division is responsible for 85.32 miles of road, 30 bridges and large-diameter culverts, approximately 35 miles of sidewalk, 560 culverts, 1,800 drainage basins, and the entire system of connecting drainage pipes. This Division also maintains all road signs and street markings along with the roads (see Chapter 7 "Transportation" for a discussion of the road system).

Brattleboro's infrastructure—roads, sidewalks, stormwater drainage system—is old. The costs of maintenance, repair, and upgrade must be balanced with those of new construction. The challenge is to make appropriate and timely spending for maintenance before repair is expensive because it is too late. The Town also makes every attempt to leverage supplemental state and federal funds with town investments. The Public Works Department uses the computer program Road Surface Management System to assist in determining the road maintenance schedule. Each road section is surveyed and rated on several criteria about once every two years. The goal is to keep the best ratings on the roads at the lowest cost.

Since 2004, the Public Works Department has been working to fit street lights with energy-efficient bulbs.² These efforts are continuing, the Department is working with the Town Energy Committee to upgrade to LED lights and to come up with a strategy for street lighting that balances reducing the environmental impact of street lighting with providing lighting for the safety of roads and for the community in general.

The maintenance of the stormwater drainage system is a responsibility of the Highway Division. Brattleboro's existing system is undersized in many parts of Town, especially in the older sections of Canal

Street, South Main Street, and northern parts of Main Street.

Stormwater Management

Increasingly, state and federal regulations are requiring that stormwater be treated prior to outfalling into a water body. Brattleboro's stormwater drainage system is separate from the sewer collection system. Therefore, anything that goes down a storm drain outfalls directly to the nearest stream or river with no treatment. In the late 1990s, the U.S. Environmental Protection Agency (EPA) began requiring cities to institute separate stormwater systems to prevent harmful pollutants from being washed or dumped into the stormwater system. Due to its size and population density, Brattleboro was not required to comply with the federal regulations. However, the threats to waterbodies are real and deserve attention. Crosby Brook has been listed on Vermont's 303(d) List as an impaired stream. The EPA requires that states develop a Total Maximum Daily Load, or TMDL, for each stream segment on the 303(d) list. While the TMDL process is a state responsibility, local governments and property owners will be significantly affected when it comes time to implement load reductions by source.

Over the last several years, the Town has been supportive of efforts by the Vermont Agency of Natural Resources and the Natural Resources Conservation District to improve locations where stream bank erosion results in sedimentation of the Crosby Brook. Highway stormwater discharges must also be addressed to prevent the Crosby Brook from being designated a stormwater impaired stream.

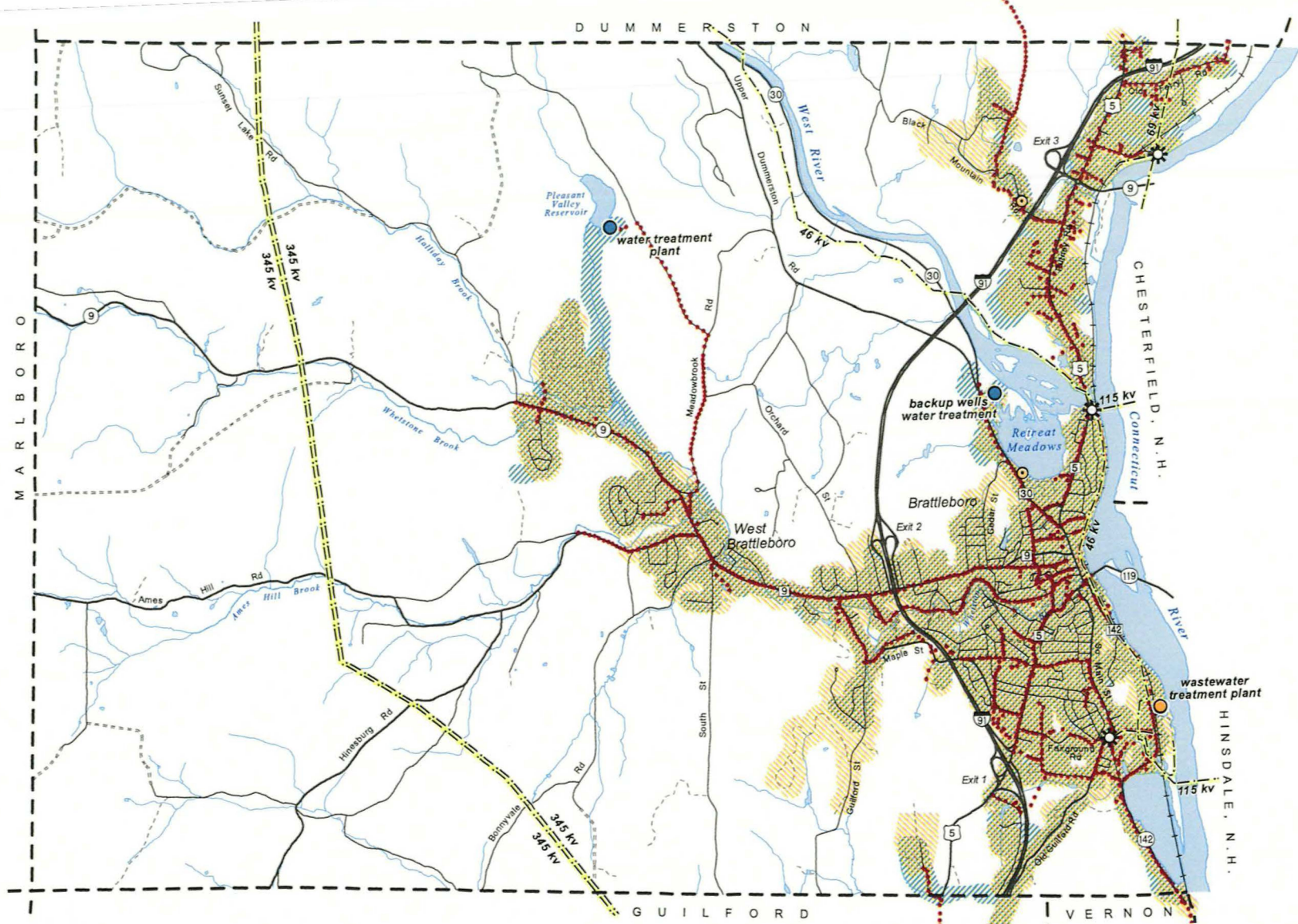
Maintenance of the Town's stormwater drainage system is important to avoid public safety hazards (e.g., preventing standing water and flooding of roadways), health risks, and environmental hazards. Maintenance includes cleaning catchbasins and clearing clogged underground pipes. Maintenance is getting increasingly expensive and requires specialized equipment. Currently, this maintenance is financed from funds allocated to the Highway Division but the funding is not adequate to keep up with necessary maintenance. Therefore, this Plan includes a policy 10.3 to improve the stormwater management system and it recommends managing and financing it in another way. Several Vermont communities have formed stormwater utilities. In this system, all owners of developed properties that contribute stormwater runoff and pollution to the system are charged a fee for service, much like utility fees for water and sewer. These fees are then used to support the maintenance of the stormwater system in a sustainable way.

Sidewalks

Maintaining, improving, and expanding sidewalks is a constant challenge, given budget constraints. The Public Works Department makes every effort to leverage funds so that more work can be accomplished. The Department does prioritize sidewalk projects but could benefit from a Sidewalk Master Plan that would serve as the primary guide in the allocation of capital, maintenance, administrative, and matching funds. Such a plan would need to be designed to provide staff and the public with flexibility, as opportunities and needs arise. This action is discussed further in Chapter 7 "Transportation" of this Plan.










UTILITIES DIVISION

The Utilities Division of the Public Works Department is responsible for the repair and maintenance of both the water delivery system and the sanitary sewer collection system. They also maintain the fire hydrants and water meters of the Town. The water and sewer services are available within approximately the same geographic area. The utilities generally follow the Route 5 and Route 9 corridors north to the Dummerston town line, south into Guilford, and west to Sunset Lake Road (see the Water, Sewer, and Electric Utilities Map). Expansions of the water and sewer systems are generally paid for by either a developer or user. More recent line expansions include extensions to Commonwealth Dairy and Algiers Village in neighboring Guilford.



Water, Sewer, and Electric Utilities



-  water service area
 -  sewer service area
 -  area served by both water and sewer
 -  water treatment facility
 -  wastewater treatment plant
 -  sewer pumping station
 -  electric substation
 -  electric transmission line
 -  three-phase power (distribution)
- (the above are all town managed utilities)

Data sources:
 Brattleboro Public Works Department:
 water & sewer service areas
 Windham Regional Commission:
 water & sewer facilities, electric substations
 Vermont Center for Geographic Information:
 electric transmission lines
 Central Vermont Public Service:
 three-phase power

Water Supply

Brattleboro's public water supply sources include wells and the Pleasant Valley Reservoir. Water is provided through a fee-based water rate. Funding for the public water supply system is through an enterprise fund, which is funded entirely by water receipts.

The municipal water supply infrastructure consists of two systems: the Water Treatment Plant and 3-million-gallon water storage tank located on the Pleasant Valley Reservoir and three backup wells with a filtration plant at the Retreat Meadows. The water treatment plant is designed to process 3 million gallons per day (MGD) and on average it is currently serving 1.2–1.3 MGD.

The Water Treatment Plant at Pleasant Valley Reservoir came online in 1990. The most recent improvement to the system was a major upgrade to the Retreat Well Filtration Plant on Route 30 in 2002. In addition to the water storage tank at the Water Treatment Plant, a 125,000-gallon tank serves Sherwood Circle, and the Exit 1 Industrial Park and Black Mountain Road are each served by 1-million-gallon water tanks.

There is adequate water supply to meet demand. However, the water treatment plant at Pleasant Valley Reservoir is aging. As a condition of the state permit to operate a water treatment facility, the facility must be evaluated every 20 years. The evaluation has been completed, and this Plan recommends that upgrades be done to the filters and the alum sludge lagoons. The Public Works Department expects that this work will need to be undertaken within the next 10 years.

Wastewater Treatment

The Wastewater Treatment Plant is an activated sludge, or secondary treatment, facility located on Route 142, south of downtown. This facility is currently operating at about 50% of its capacity and has the potential to operate at 3 million gallons per day (MGD). Originally built in 1967 as a primary treatment facility, this facility was upgraded to a secondary treatment plant in 1984. State permitting requires that wastewater treatment plants, like water treatment plants, be evaluated every 20 years. This evaluation was completed in the early 2000s and resulted in the Town undertaking a major upgrade to the facility. The \$32.8 million project was financed through a combination of state revolving loan funds and municipal bonds.

The main components of the project, which began in late 2010, include a new headworks building, primary clarifiers, pump gallery, thermophilic digester tank, sanitary pump station, and plant water pump station. The project also includes modification work to the existing secondary clarifiers, dewatering building, digester complex, control building, chlorine building and contact channels, and selector building with a Moving Bed Biofilm Reactor (MBBR) system. The design of the facility provides for using renewable energy from a solar hot water system for the offices, recapturing methane to heat the boilers, and utilizing thermal energy for heating and cooling the wastewater.

The facility is able to produce Class- A biosolids acceptable for use as fertilizer. This ability will allow the facility to accept waste that is not currently accepted, such as septic and waste from certain industrial processes that cannot currently be handled, producing new revenue streams for the utility fund.

CULTURAL AND RECREATIONAL SERVICES

Brooks Memorial Library

The Library is located on Main Street in the downtown. Opened in 1967, the facility is 17,600 square feet and has three floors. The library is handicapped accessible and features a Children's Room, a genealogical room, and a meeting room.

The library is currently staffed by six full-time employees, eight regularly scheduled part-time employees, and many dedicated volunteers, operating the library 50 hours per week. The library has a board of nine trustees who are elected annually at Town Meeting. They establish library operating policies and manage an endowment fund. A separately incorporated organization, the Friends of Brooks Memorial Library, supports special library projects through fundraising.

The Library's collections include books, periodicals, digital media (DVD, CD, video, audio books), and databases, and fine art. The Library also offers Internet access for the public. This public access is an important service offering high-speed connection to the Internet for people in the community who are underserved, and for the economically disadvantaged. In addition to meeting circulation needs, the Library fosters community cultural life by hosting public meetings and exhibits with outside organizations.

In 2017 the Library completed renovation that included improving meeting spaces, creating a teen reading room, and refurbishing the Children's Room. These renovations were funded by a generous donation from a benefactor.

Union Station

Located on the corner of Vernon Street and Bridge Street, Union Station is a historic structure under long-term lease to the Brattleboro Museum and Arts Center (BMAC). The Town is responsible for maintaining the building; the day-to-day management and use of the space is overseen by BMAC.

The property also houses the Amtrak train station. In 2012, a first phase of improvements to the train station was completed. They include a new bus turnaround on Depot Street and a parking lot. Plans to include improvements to the passenger platform, including covering it, had to be scaled back due to funding challenges. The Town is committed to improving and covering the passenger platform.

Recreation and Parks

The Recreation and Parks Department is responsible for the planning, organization, direction, and evaluation of a comprehensive recreation program for all ages. This programming includes youth and adult sports leagues, day camps, youth and adult activities, special events, and senior center activities. In addition, this department coordinates activities and schedules facilities with 13 different community organizations. Policy 10.9 of this Plan supports the continuation of providing recreational opportunities for people of all ages and abilities. This department also maintains public parks, recreational facilities, and Town cemeteries.

The Department is staffed by 9 full-time and 40 seasonal employees. In addition, volunteers and program instructors support the Department year round. Its offices are located in the Gibson-Aiken Center on Main Street. This facility includes two gymnasiums, the Senior Center, activity rooms, meeting rooms, and offices. The Recreation and Parks Committee consists of seven members who are appointed by the Selectboard. It is an advisory board to the Department, helping to set policy and goals as well as overseeing the parks, programs, and facilities. The public-owned lands and facilities in the Town (see Table 10.3).

Brattleboro has 14 mini parks, these can be an important amenity to neighborhoods, especially in areas where open land is scarce, because they provide green space for neighbors to gather and socialize, and in some places for children to play. Maintaining and programming of these spaces can be challenging, given budget limitations. Community involvement is needed to help beautify these spaces. Presently, service organizations and other groups have taken on projects to improve public spaces. This Plan is appreciative and supportive of these voluntary efforts. The Town and local community groups should work toward creative solutions to make these projects happen.

Beautification matters because the physical beauty of amenities in town is a reflection of a community’s pride and commitment to mutual benefit. The appearance of a community’s environment is a good indicator of a community’s health. Visible signs of neglect such as overgrowth and disrepair communicate a lack of interest in keeping a community strong and an unwillingness to accept responsibility for doing so. Signs of care and attention such as well-maintained trees, sidewalks, medians, and public areas show the town’s commitment to maintaining a strong community.

The Recreation and Parks Department has continued to make improvements and additions to their facilities. The West River Recreational Area provides opportunities for both active and passive recreation, with the addition of playing fields as well as trails and a canoe/kayak launch. A dog park was built at Living Memorial Park and a skate park has been approved there as well. Funds are being raised for its construction.

With the addition of the West River Recreational Area, the field space needs for the community will be adequate for the next 5–10 years. Several Town program use fields or facilities owned by the school districts. Changes in arrangements for use of these facilities could have an impact on programs. Therefore, this Plan recommends the continued cooperative use of school district facilities and fields to meet programming needs.

The Recreation and Parks Department could benefit from a Recreation and Parks Master Plan, so this Plan recommends that one be done. Park master plans assist the public to determine the best uses for a specific site and the best ways to optimize management of its resources. Such a plan would provide a long-range vision for future development and programming. Issues typically addressed include planned park elements, natural and cultural resources management, general design concerns, and changing public needs.

Table 10.3: Publically-owned parks and recreation land

Site	Location	Acres	Current facilities
Brattleboro Common	Putney Road	3.50	Bandstand
Crowell Park	Western Avenue	4.90	Basketball courts, Ball field, Playground
Depot Street Greenspace	Depot Street		Picnic tables
Esteyville Common	Estey Street	0.19	Bandstand
Floral Arts Club Park	Western Avenue	0.38	Park
Gibson-Aiken Center	Main Street	0.73	Gymnastic room, Gymnasium, Game rooms, Senior Center, stage
Living Memorial Park	Guilford Street	66.74	Playgrounds, Basketball courts, Swimming pool, Water playground, Ball fields, Kiwanis shelter, Trail system, Volleyball courts, Skating rink, Ski/sled hill, stage, outdoor cabins, cathedral, dog park
Pine Street Park	Pine Street	0.17	Playground
Plaza Park	Main Street	0.15	Park
Pliny Park	Main Street	0.08	Park, stage
South Main Street Park	South Main Street	0.22	Park

Site	Location	Acres	Current facilities
Thomas Lynch Park	Elliot Street	0.50	Playground, amphitheater
Wells Fountain Park	Main Street	0.67	Park, stage
West Brattleboro Village Green	Western Avenue	0.31	Open space
West River Park	Route 30	11.03	Ball fields, Canoe/kayak launch, Picnic areas

Brattleboro Senior Center

Brattleboro has a large senior population. To serve the needs of the senior population, the Recreation and Parks Department provides daily activities and special events at the Senior Center in the Gibson-Aiken Center. The Recreation and Parks Department continually adapts its programming to meet the needs of its participants. Consistent with the demographic shift of the community, more recently retired people are utilizing the Senior Center and looking for more active recreation. This has resulted in some additional programming to address their needs.

Services at the Senior Center are enhanced by the presence of Brattleboro Senior Meals, a nonprofit food service organization. They prepare meals for both congregate dining 5 days a week at the Center and for delivery through their Meals on Wheels Program.

PARKING SYSTEM

Nearly all of Brattleboro’s public parking is located Downtown. The Town manages 7 parking lots and the Brattleboro Transportation Center parking garage, with a combination of pay-and-display ticketing and meters. In addition, there is on-street metered parking on Main Street, High Street, Elliot Street, Flat Street, Elm Street, Church Street, Walnut Street, and Grove Street. The locations of municipal parking lots are identified on the Transportation Facilities Map located in Chapter 7 “Transportation” of this Plan. The parking system derives funds for maintenance and improvements from parking fees and fines.

The parking system is currently overseen by the Assistant Town Manager. There are three parking enforcement officers, who operate out of the Parking Office on the first floor of the Transportation Center.

Over the years, Brattleboro has made adjustments to the downtown parking system. Most recently, Smart Cards were introduced. Policy 10.11 of this Plan is to use parking technologies that offer customers and policy-makers the maximum flexibility. Consideration of ways to improve the current system and add convenience for motorists should be ongoing. Some options for this purpose include: portable time (receipts purchased at pay boxes are good until expiration at any pay box with the same rate, allowing people to take payment with them to visit many different stores); extended free parking for holidays; rates that adjust after the first hour or two, thereby changing those who overstay meter times from violators into higher paying customers.

CEMETERIES

Brattleboro has 5 cemeteries, which are maintained by the Town. A Cemetery Committee advises the Selectboard on care and maintenance of the cemeteries. Only Morningside Cemetery has plots available for purchase. It is not expected that additional burial grounds will be needed in the near future, given the space that is currently available and the increasing trend to cremate.

SOLID WASTE AND RECYCLING

The Town of Brattleboro is a member of the Windham Solid Waste Management District (WSWMD). Membership in this district provides Brattleboro with comprehensive solid waste management in cooperation with other towns. WSWMD is headquartered on Old Ferry Road at Brattleboro's closed landfill. The facility consists of administrative offices, a materials recycling facility, pole barn, hazardous waste depot, transfer station, and swap shop. All of the solid waste is disposed of outside the district.

In 2015, Brattleboro implemented pay-as-you-throw (PAYT) garbage disposal. For residences with less than 4 units, the town operates a pay-as-you-throw system with curbside recycling on a bi-weekly basis. Currently the Town provides bi-weekly curbside collection of trash and recyclables to all residents except those living in apartments with five or more units (landlords are responsible for managing both trash and recycling in these buildings). Trash is a pay-as-you-throw system (PAYT) where special trash bags are purchased by Brattleboro residents. The Town contracts with a hauler to provide the service. The collected trash is hauled to their privately owned transfer station on Vernon Street. From there, it is disposed of at various licensed and certified disposal facilities throughout the Northeast.

Brattleboro also provides free curbside composting of food scraps and non-recyclable paper and cardboard. It is currently a voluntary program but will become mandatory in 2020 under state law.

THE "ARCHERY BUILDING"

In 2006, the Town acquired 2 adjacent properties on Depot Street as part of improvements to the train station. The auto garage on one of the parcels was demolished in 2010. A 1 1/2-story timber structure remains. The building was found to have historic significance by an Environmental Assessment conducted as part of the Multimodal Transportation Facility improvement project. Since the property was purchased using federal FTA funds, any action to demolish the structure will require further study. The building is currently vacant and in need of rehabilitation if it is to remain.

FOOTNOTES

¹ Hawk Planning Resources, "Rethinking Brattleboro's Commercial Districts," (2011).

² W. Carhart and C. Fish, On the Job: The Brattleboro Public Works Department (Brattleboro Area Chamber of Commerce, 2009).

11| Natural Resources

Goals

- A. Preserve and enhance Brattleboro's natural resources and environmental features, and protect these features from the impacts of development
- B. Enhance the appreciation of Brattleboro's natural environment
- C. Encourage enjoyment and participation of open space
- D. Protect and enhance the ecological integrity of the Town's natural communities¹ and wildlife habitats

Policies and Actions

Policy 11.1 Encourage preservation and restoration of wildlife corridors, wetlands, and riparian habitats

Actions:

- 11.1.1 Maintain any Class I designated wetlands in their natural condition; ensure that any permitted alterations to Class II and Class III wetlands do not significantly diminish their functional, ecological, or aesthetic values; comment on applications submitted to the Vermont Wetlands Offices as necessary to ensure the above
- 11.1.2 Maintain wetland and riparian buffer zones for the protection all surface waters
- 11.1.3 Support federal, state, and conservation group acquisition of land and/or conservation easements to protect wildlife corridors, wetlands, and riparian habitats
- 11.1.4 Conduct a natural resources inventory that compiles existing data and gathers new field data in order to better understand Brattleboro's natural heritage

Policy 11.2 Prevent the spread of invasive species

Actions:

- 11.2.1 Educate residents and visitors regarding the identification, threats, and control of invasive species
- 11.2.2 Cooperate with private, local, state, and federal groups to address the threat of invasive species
- 11.2.3 Remove existing nonnative species in coordination with Town-initiated work projects
- 11.2.4 When possible, involve Town personnel to eradicate nonnative species on Town properties and road rights-of-way

Policy 11.3 Maintain and enhance the urban forest cover

Actions:

- 11.3.1 Complete the tree inventory
- 11.3.2 Develop a comprehensive plan for street trees to ensure an increase in tree stock, species diversity, and appropriate plantings
- 11.3.3 Encourage Town capital projects to include appropriate consideration of the benefits of street trees and an enhanced urban forest cover
- 11.3.4 Continue participation in the Tree City USA program
- 11.3.5 Seek grants to fund public tree planting

Policy 11.4 Promote best management practices to reduce stormwater runoff and control erosion

Actions:

- 11.4.1 Enforce and strengthen regulations that limit the impact of development on water quality
- 11.4.2 Develop educational materials to foster a better understanding of green infrastructure benefits and how residents and businesses can benefit
- 11.4.3 Encourage the use of permeable pavers and porous blacktop
- 11.4.4 Support regenerative soil practices to strengthen the capability of soils to filter and recharge groundwater, reduce erosion, and improve drought resiliency

Policy 11.5 Coordinate a community trail system that accommodates a variety of trail users and creates trail linkages

Actions:

- 11.5.1 Develop trail alignments that promote aesthetic views and safe conditions and that minimize negative impacts to any environmental areas
- 11.5.2 Coordinate trail alignment to provide linkages to parks, schools, the downtown, regional trail systems, and other amenities
- 11.5.3 Work with nonprofit and volunteer organizations and private landowners to improve recreational opportunities and enhance existing open space areas

Policy 11.6 Promote, sponsor, and organize events that connect residents to the natural environment

Brattleboro features a diverse landscape with forested lands, streams, scenic rivers, open farmland, and wooded parcels, providing an equally diverse habitat. These natural resources and open spaces support the integrity of the local ecosystem, provide residents with a healthy and enjoyable environment in which to live, and safeguard land based economic resources, such as agriculture and forestry. This Plan seeks to strike a balance between regulatory and non-regulatory tools to preserve forest and farmland, manage air quality, and protect water quality.

CURRENT CONDITIONS

Water Quality

Surface Waters

Vermont has established water quality standards to classify all surface waters into classes and management types. Now classified, the waters must be managed to maintain their designated classifications. The West River, Connecticut River, Whetstone Brook, Crosby Brook, and most streams in Brattleboro are classified as Class B waters. This classification means “suited for bathing and recreation, irrigation and agricultural uses; good fish habitat; good aesthetic value; acceptable for public water supply with filtration and disinfection.” Pleasant Valley Reservoir and all waters in its watershed and the portions of the Sunset Lake watershed located in Brattleboro are classified as A2. Class A2 waters are to be managed for public water supply purposes. The stretch of the Connecticut River, from Downtown south to the town line, is classified as a Waste Management Zone, a Class B water that is designated by permit to accept the discharge of properly treated wastes, which prior to treatment contain pathogenic organisms. Throughout the receiving waters, established water quality criteria must be achieved, but increased health risks exist in a waste management zone due to the (authorized) discharge.

The impact on the water quality of untreated stormwater discharges into Brattleboro’s rivers and streams is a great concern. State and Federal stormwater treatment requirements are applicable to developments that construct over 1 acre of impermeable surfaces. Typically, this requires construction and private maintenance of on-site stormwater retention and treatment ponds. However stormwater discharges from existing developed areas needs to be addressed. This is particularly true for the area of commercial development on Putney Road with stormwater draining into Crosby Brook. For more information on how stormwater is currently managed, see Chapter 10 “Municipal Facilities & Services.”

Impaired Waters

In accordance with Federal law, Vermont is required to list waters that are impaired by point and/or non-point sources of pollution. Two stream segments have been listed on the State of Vermont 2010 Impaired Water List. A portion of the Crosby Brook is classified as polluted with sediment on the Federal Clean Water Act 303(d) Impaired Waters List by the Vermont Department of Environmental Conservation (DEC). Stormwater runoff from the Route 5 corridor, Interstate 91, and I-91 Exit 3 has been shown to contribute to the impairment of the brook. A portion of the Whetstone Brook is impaired with *E. coli* from unknown sources.

Groundwater

Groundwater provides the primary supply of potable water for approximately 2,500 homes in Brattleboro. Groundwater accumulates in two general hydrogeological settings: bedrock and unconsolidated aquifers. As groundwater moves through these materials, the organic and mineral substances that are dissolved or adsorbed dictate the quality of water. Although groundwater quality in Vermont is generally very good, it is not well understood. Brattleboro has not mapped, classified, or protected its groundwater. Land use activities that potentially result in the contamination of groundwater resources are an important natural resource concern, since once pollutants enter an aquifer, they are not easily or quickly removed.

Brattleboro also has a municipal drinking water well next to the Retreat Meadows that serves as a backup source

to the Pleasant Valley Reservoir. The wellhead protection area (the surrounding area where water recharges the well) includes lands on both sides of Route 30 and is fairly undeveloped. One non-transient, non-community public water system and one non-community system also rely on Brattleboro's groundwater supply.

Air Quality

The Connecticut River valley is known to experience temperature inversions, particularly in the winter, on cold, calm days. In temperature inversion, the coldest air remains at the surface, and milder air is aloft. This inversion traps pollutants from vehicles, fireplaces, and industry that are emitted into the air and results in poor air quality.

The closest air monitoring station in Vermont is in Bennington, which is not affected by temperature inversion, since it is not located in a valley. The State of New Hampshire has an air quality monitoring station in Keene. Due to its geography, Keene also experiences temperature inversion. Data from the Keene station revealed that air quality was exceeding the NAAQS set by the EPA for particulate matter smaller than 2.5 microns (PM2.5) in the years leading up to 2009.¹ Children, elderly, and people with asthma, cardiovascular, or lung disease are particularly sensitive to PM2.5.

Invasive Species

Invasive species are nonnative plants, animals, aquatic species, or other organisms that disrupt the environment and threaten economic and/or environmental harm. Invasive woody plants of particular concern in Brattleboro are glossy buckthorn, Japanese barberry, and Oriental bitter-sweet. Foresters are also concerned about Asiatic honeysuckles, as they are currently thriving in Windham County. Purple loosestrife and Japanese knotweed are also pervasive in Brattleboro's wetlands and along waterways and will continue to spread absent use of bio-control, which does not yet exist for Japanese knotweed.

Vermont Agency of Natural Resources is carefully monitoring for three invasive pests that have either already been identified in Brattleboro or are moving closer to the area:

- Since 2008, citizens and foresters have identified several areas of hemlock trees infested with hemlock woolly adelgid in Brattleboro and neighboring towns.
- The emerald ash borer (EAB), an Asian beetle that preys on all types of ash trees, has spread through flight and the movement of firewood. Fourteen states and two Canadian provinces are now infested with EAB. It was most recently found in southwest New York, including the Catskills, and in Canada only 28 miles from the northeastern Vermont border. The EAB is able to fly at least one-half mile.
- The Asian longhorned beetle destroys deciduous hardwood trees and has been found in the neighboring states of New York and Massachusetts.

Invasive species that are threatening our water bodies include didymo (freshwater algae) and Eurasian watermilfoil. The first milfoil infestation in the Connecticut River was discovered in Springfield, VT, in 1995. It has since spread to Brattleboro, where there is a thick growth in the Retreat Meadows. Didymo was first discovered in 2007 in Bloomfield, VT. It is present in the Upper Connecticut River and the White River. The Connecticut River is considered to be susceptible to the zebra mussel due to the chemistry of the water.² The zebra mussel is present in Lake Champlain, and larvae can be transferred via human made objects, such as buckets or boats.

Aquatic plant growth is quite extensive in the Retreat Meadows due to shallow depths and other conditions. In 2002, two submerged invasive species, Eurasian watermilfoil and curly-leaf pondweed, were found growing in the Retreat Meadows. Some years the milfoil has been so extensive that it has been visible on the surface.

Riparian Corridors

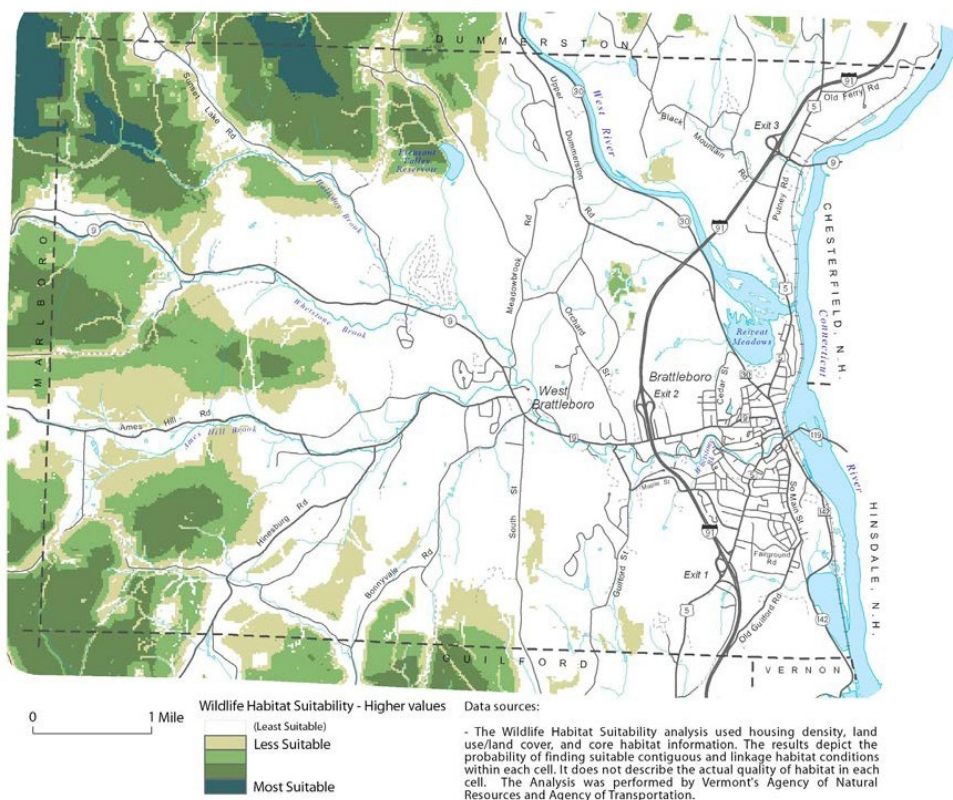
Riparian corridors, or buffers, are undisturbed, naturally vegetated areas contiguous with and parallel to rivers and streams. Riparian buffers protect water resources by improving water quality through: filtering pollutants and sediments, stabilizing stream banks and river beds, and improving wildlife habitat by providing travel corridors and

improving aquatic habitat. In establishing a buffer, the recommended buffer width varies depending on the goal—keeping water clean, stabilizing the bank, or protecting fish and wildlife habitat.

Wildlife and Wildlife Corridors

The varying terrain of Brattleboro (from rugged and wooded slopes to open fields) provides wildlife habitat for a great diversity of species. Deer can be found in a variety of habitats but are known to prefer forest edges that feature large woodlots and agricultural openings. Ruffed grouse are present where habitat is varied and in early stages of succession where stands of poplar can be managed to encourage them. Waterfowl and woodcock nest on or frequent the natural ponds, beaver ponds, and wet areas throughout the Town. Wild turkey, mink, and coyotes are now well established, and moose and bear sightings are increasing. The viability of these habitats is due to their interconnectedness.

Figure 11.1: Wildlife Suitability Map



The ANR has mapped wildlife habitat suitability based on development density, land use/land cover, and core habitat information. The remote, wooded, rugged, and unpopulated sections of Brattleboro (shown in Figure 11.1) contain excellent habitats for bobcat, black bear, and moose, which require large contiguous tracts of land for survival. All of these lands connect to large, unfragmented lands in neighboring towns. In addition, several lands in trust or lands on which development rights have been sold or donated offer additional protection for wildlife habitats.

A limitation of the State’s mapping is that it relies on development density as one of the qualifiers for suitable habitat. Therefore, it does not evaluate the more densely developed areas of Brattleboro, including the Route 9 corridor and areas east of I-91. Large open spaces such as the Retreat Meadows, Retreat Trail system, and Living Memorial Park are important habitat areas to support deer, turkeys, gray squirrels, eastern cottontails, porcupines,

chipmunks, birds, and a variety of other small animals.

Resource Lands

Forest Resources

There are several major associations or groupings of trees which naturally occur locally. These include the northern hardwoods (sugar maple, hemlock, yellow birch), white/ red pine, oak/hickory, and oak/pine.

Brattleboro owns 73.64 acres of land comprising the Living Memorial Park Town Forest. Approximately 39.14 acres of the Town Forest is forested. Common tree species in the park include white pine, hemlock, red oak, black birch, and sugar maple.³ A management plan is in place, with the main goals of providing recreational opportunities and maintaining ecosystem and forest health.

The Town also has management plans in place for the Richardson Forest and Pleasant Valley Reservoir. Both of these are selectively harvested for an economic return.

The forest resources in Brattleboro have a direct economic value as both a product and a fuel source. Unlike other parts of Windham County, no industrial-scale timber harvesting is occurring in Brattleboro. However, smaller-scale timber harvesting does occur. The extensive forested landscape also provides indirect economic benefits in terms of recreation, maple sugaring, wildlife habitat, and sense of place.

Just as important as the economic asset represented by forested lands are the ecological benefits. These include the forest acting as a carbon sink (where the trees absorb more carbon than they release), watershed protection, wildlife habitat, and temperature control.

The only current regulation on timber cutting in Brattleboro is compliance with Vermont's regulations for heavy cuts of 40 acres or more. Growing concerns over erosion and sedimentation that can occur from tree clearing, whether for forest management or land development, has led to many towns adopting local regulations. Chapter 12 "Land Use" of this Plan discusses how unregulated practices can exacerbate erosion and flooding, and recommends regulating tree clearing—something that is not currently done at the local level.

Urban Forestry

The public trees in parks, along roadways, and around public buildings are part of Brattleboro's urban forest. These trees have social, economic, and environmental benefits for neighborhoods and the community at large. They enhance the streetscape, create gateways, and define a sense of place. From an environmental perspective, trees mitigate erosion and water runoff, enhance visual aesthetics, moderate temperature, dampen noise, provide shelter from the wind, and are a source of food and shelter for urban wildlife.

Brattleboro's urban forest should be considered as a valuable resource to the town and be given proper attention. The Town has a Tree Advisory Committee that works with the Tree Warden to promote improvement and preservation of a healthy environment of the Town as it relates to public trees. Challenges to Brattleboro's urban forest include new development, invasive species, lack of long range planning and investment, and ample resources to maintain the current tree stock.

Sand and Gravel Resources

Maps indicate that sand and gravel deposits are scattered throughout Brattleboro, primarily located near the rivers and large tributaries. However, there is no detailed inventory of the quality and quantity of these sand and gravel deposits. Commercial excavation operations are currently conducted on Mercury Drive and Cider Mill Hill Road. Both facilities are operating with State permits.

The Brattleboro Land Use Regulations currently permits excavation/quarry operations in Industrial zoning districts, and conditionally permits them in Rural and Rural Residential zoning districts. The LUR does have specific regulations governing earth extractions. Compliance with these regulations is part of the site plan review process for proposed operations. During this review, the Development Review Board considers concerns such as impacts to road and traffic conditions, groundwater recharge, and soil erosion.

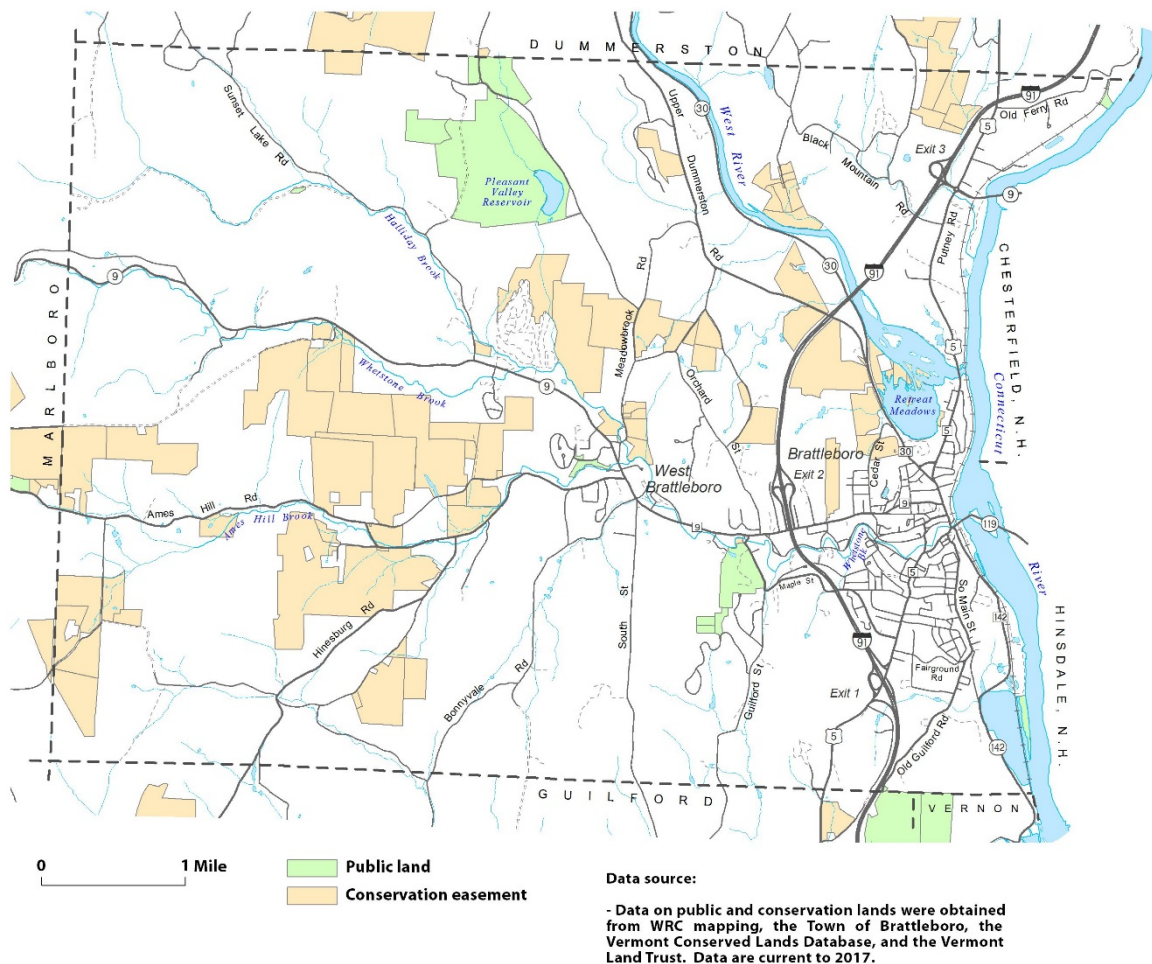
Open Space

Brattleboro is fortunate to have an existing open space system⁴ that is in relatively good condition, well distributed geographically, and diverse in types of uses accommodated. Figure 11.2 shows public and conserved lands in Brattleboro. In looking toward the future, it would serve the community well to identify additional locations as open space. In order to assist in this effort, it will be necessary to develop a set of criteria to evaluate whether a property will enhance Brattleboro's open space network and provide a significant benefit to the community. The following is a list of objectives that can be utilized for focusing future conservation efforts, by considering whether the identified location:

- Links existing parks and open spaces together to form interconnected greenways within Brattleboro, or on a larger regional open space network
- Is adjacent to and complementary with existing parks and/or open spaces owned by the Town, neighboring municipalities, or the State
- Preserve natural drainage areas, including waterways and surrounding wetlands and floodplains
- Protects existing and potential public drinking water supplies, including groundwater
- Protects unique and significant natural features, including critical threatened habitat
- Preserves agricultural land
- Has multiple values for recreational or open space use

The number of conservation easements on private lands has grown since 2000. While many easements are modest in acreage, this reflects a county trend of land being conserved by easement instead of public acquisition. Since 2000, Brattleboro has also experienced another trend in land conservation—the purchase of land by conservation organizations. Region-wide, such purchases generally involve parcels of local interest. One such example in Brattleboro is the purchase of the Locke Farm field by the Vermont River Conservancy working with the West Brattleboro Association and the Windham Natural Resources Conservation District for agricultural and recreational use.

Figure 11.2: Public and Conservation Lands



Trail Network

Brattleboro is fortunate to have several hiking trails easily accessible to the public. In 2006 and 2007, the Windham Foundation and Brattleboro Retreat worked with the Vermont Youth Conservation Corps to revitalize the 9-mile Retreat Trail network on their lands, making the trails more environmentally sound and easier to follow. In 2010, the Round Mountain Trail opened to the public, and a trail connection between Memorial Park and Highpoint Development was also completed.

The Town-owned trails in Living Memorial Park are maintained by the Parks and Recreation Department. Until recently, there was little formal maintenance, and the trails were unmarked and unmapped. Renewed interest in the Town Forest portion of the Park (that area beyond the open, developed portion) began with the work of Town of Brattleboro Tree Advisory Board, who commissioned a property boundary survey, a forest management plan, and a trails management plan. The Recreation and Parks Department, Brattleboro Area Trails Committee, and the Brattleboro-Keene New England Mountain Bike Association have all worked together to improve, expand, and map the Living Memorial Park trail system. Trails on private lands are maintained by either the owners or volunteer groups.

The trail system is a major quality-of-life amenity. However, the existing trails are not well publicized or, in some cases, marked. Kiosks, trail maps, directions, and clearly marked trails are some of the improvements that would

help residents and visitors access this natural amenity. The Brattleboro Conservation Commission continues to identify, map, and publish many of the existing hiking trails in Brattleboro so that residents and visitors can take advantage of them. Town-owned trails should be planned for in the Capital Improvement Program and budgeted for annually.

The existing trails, coupled with other local trails and sidewalks, provide a solid foundation toward achieving an interconnected and accessible greenways and trail system. As efforts are undertaken to expand the trail system, greenways that link existing parks and open space areas with neighborhoods and community facilities, such as schools, and provide a pedestrian-friendly environment to serve residents, should be a priority.

Natural Resources and Land Use

This Plan seeks to preserve natural features and ecosystems and ensure proposed development does not have a negative impact on those natural resources. Land Use Regulations play a critical role in protecting Natural Resources, primarily on a site by site basis. Brattleboro subdivision density and design in the Rural and Rural Residential zoning districts require that that physical features of the site be considered and that development is clustered in a manner that reduces impervious surfaces, reduces erosion and sedimentation resulting from development on steep land, and minimizes disturbance. This can also help create a series of interconnected greenways throughout Brattleboro.

A series of land use regulatory tools are included in the Land Use Regulations to promote multiple benefits. Riparian areas and wetland setbacks protect and enhance overall quality, natural function, and ecological health of the resources. A prohibition on disturbing slopes greater than 30 percent is aimed mitigating the cumulative effects of steep slope development which can include: decreased water quality from erosion and sedimentation, increased downstream runoff and flooding problem, loss of sensitive habitats, slope failures, lack of safe access for emergency vehicles, and high cost of maintenance for public improvements.

The LUR has specific stormwater management and erosion control provisions. Low-impact development (LID) and green stormwater infrastructure (GSI) techniques are encouraged to manage stormwater onsite to lessen the burden on the town's system. Other benefits include increased groundwater recharge, reducing surface water flows that can lead to increased flooding and pollution prevention.

FOOTNOTES

¹ New Hampshire Department of Environmental Services. *Keene Woodstove Changeout Campaign 2009-2010 Final Report*, (2010). <http://des.nh.gov/organization/divisions/air/cb/ceps/npsap/documents/keene-woodstove-final-rpt.pdf>.

² Connecticut River Management Plan, Water resources, Wantastiquet Region, (2009). <http://www.crjc.org/river-plan/water-resources-management-plan/>.

³ Andrew Sheere, *Management Plan for the Town of Brattleboro Living Memorial Park Town Forest, 2007–2017* (2006).

⁴An open space system is a complex of public and privately owned lands.

12 | Land Use

Goals

- A. Promote development of a future land use pattern that promotes public health and safety against floods, ensures the viability of agricultural and forestry economies, protects natural resources, promotes transportation accessibility, and reinforces a compact development pattern
- B. Reduce the impact of flooding and erosion
- C. Promote development patterns that include walkable streets; compact, mixed-use development; public spaces; and context-sensitivity to historic design and development
- D. Increase and improve public access to waterfront areas

Policies and Actions

12.1 Direct development to existing developed areas

Actions

- 12.1.1 Maintain zoning districts consistent with the Future Land Use Plan adopted as part of this chapter
- 12.1.2 Support property owners and developers in redeveloping underutilized and vacant commercial and industrial sites
- 12.1.3 Utilize EPA and State of Vermont assessment and clean up grants to help reduce hazards to human health and the environment

12.2 Provide the highest degree of flood protection at the least cost, through the identification and accommodation of natural flooding and channel migration processes posing hazards to life or property

Actions

- 12.2.1 Continue to participate in the National Flood Insurance program and, when feasible, take advantage of preferential ratings that will lower costs to policy owners
- 12.2.2 Prohibit the placement of structures in the floodway
- 12.2.3 Support land conservation efforts that restore floodplain access along the Whetstone Brook
- 12.2.4 Preserve areas for natural storage in the floodplain
- 12.2.5 Study the cost and feasibility for the application of temporary flood protection measures. Analyze which public and private could benefit from protection and education property owners about their own mitigation.

12.3 Implement strategies within the watershed that reduce the environmental, health, and welfare hazards associated with flooding

Actions

- 12.3.1 Regulate development on steep slopes
- 12.3.2 Improve existing street connectivity
- 12.3.3 Integrate green infrastructure best-management practices into both public infrastructure and private development that protects water quality and helps prevent flooding and erosion

12.4 Ensure that new and existing commercial developments are attractive in appearance

Actions

- 12.4.1 Maintain design guidelines as a tool for achieving desired development patterns
- 12.4.2 Create a downtown master plan to articulate the many improvements that need to be envisioned, designed, prioritized, and implemented to maintain and grow Downtown
- 12.4.3 Require permits for milling, repaving and restriping parking lots, driveways and aisles to improve stormwater management and landscaping in existing parking lots

- 12.5 Enhance public access and views to the waterfront

Actions

- 12.5.1 Designate a pedestrian and bicycle path that connects Depot Street to the railroad bridge to Hinsdale
- 12.5.2 Secure easements to create trails along the Connecticut River and Whetstone Brook
- 12.5.3 Support improvements to the West River Trail
- 12.5.4 Site, design, and orient development or redevelopment to the river
- 12.5.5 Enhance the greenspace on Depot Street to encourage programming of activities and integrate the park into community life fully

- 12.6 Provide land for more intensive industrial uses that typically have a greater environmental impact and generate heavy demands on the transportation system

Actions

- 12.6.1 Encourage location of new projects in existing industrial parks and areas already developed for industrial uses
- 12.6.2 Minimize the impacts of industrial land uses on more sensitive land uses in adjoining areas through the use of performance standards.

- 12.7 Maintain and enhance the quality of life in Brattleboro's residential neighborhoods

Actions

- 12.7.1 Use a neighborhood planning process to engage local communities to define neighborhood area specific values and policies
- 12.7.2 Support efforts that provide neighborhoods with social amenities, interaction and a sense of community

The Land Use Chapter is a core component of the Town Plan and is mandated by Vermont Statute. It consists of two parts: Existing Land Use and Future Land Use. The Existing Land Use Plan provides a summary of existing land uses and development patterns. This sets the context for the way land in the community is currently being used and sets the foundation for future development. The Future Land Use Plan serves to coordinate public and private decisions that affect the physical development of the Town. By establishing a scheme for the future, this Plan strives to create a desirable pattern of future development toward which present activities can be directed.

In designating areas as suitable for various land uses, consideration is given to natural features, existing land uses, existing and proposed public improvements, and the transportation system. Overall, the Land Use Plan is intended to foster a well-organized, cohesive community that functions efficiently. The purpose of this plan, and in particular this chapter, is to provide a framework for growth that reinforces and enhances the desired development pattern of Brattleboro.

EXISTING LAND USE

Generally, Brattleboro's land use character has followed the pattern of many other New England Towns—a long tradition of tightly knit multiuse areas (i.e., downtown and West Brattleboro) followed by a more recent pattern of commercial strip development and suburban development. The "Buildings by Use Map" shows a rendering of land use in Brattleboro as it exists in 2017.

Residential

As is the case with most towns, the majority of Brattleboro's land area is occupied by residential land use. The Zoning Ordinance provides for high-, medium-, and low-density residential development. The residential neighborhoods located east of the Interstate are mature neighborhoods. In general, the most densely developed residential land is close to Downtown. These are older neighborhoods with interconnected streets, mature landscaping, and homes (single and multifamily) located on small lots.

Brattleboro has several suburban-style subdivisions with curvilinear street systems. These are generally located near Route 9 west of I-91 Exit 2 (e.g., Stockwell Drive, Sherwood Circle, Quails Hill, and High Point). Due to low market demand, recent efforts to build multi-lot subdivisions have resulted in projects that were not completed by the original developer, and consequently development is both piecemeal and slow.

The area west of I-91 and north and south of Route 9 remains largely rural in character, with large areas of agricultural land, open spaces, and sensitive environmental resources. While certain areas are accessible, that is, linked to improved public highways with easy access to public facilities, other areas are remote, with more difficult roadway access, topographic constraints, and no public water and sewer service. Residential development has generally been single-lot development occurring slowly over time.

Commercial

Downtown remains the heart of the community, serving as the central business district. It has a lively and eclectic mix of uses, including residential, retail, office, governmental, and municipal parking. It is fully serviced by public water and sewer and is a hub for public transportation. There are three character areas within the downtown:

- **Commercial Core:** The traditional commercial core is located along Main Street from Canal Street to just north of High Street. Commercial storefronts define this area, with multi-story, multi-use buildings aligned at the sidewalk edge to create a solid building wall along Main Street.
- **Wells Fountain:** The area just north of High Street to the Brattleboro Common is characterized by lower-density development with institutional, commercial, and residential buildings set back from the edge of the road.

- Waterfront: There are several buildings along Depot Street on the Connecticut River. These are generally modest, utilitarian structures, some with potential historic value, that are oriented to the railroad rather than the waterfront.

West Brattleboro Village is also a historic, mixed-use center. The Village contains several public buildings including a school and post office, several small retail stores, and a densely settled residential neighborhood around a small triangular green at a main crossroads of three streets: South Street, Bonnyvale Road, and Western Avenue. The Village is served by public water and sewer as well as the Brattleboro in-town bus.

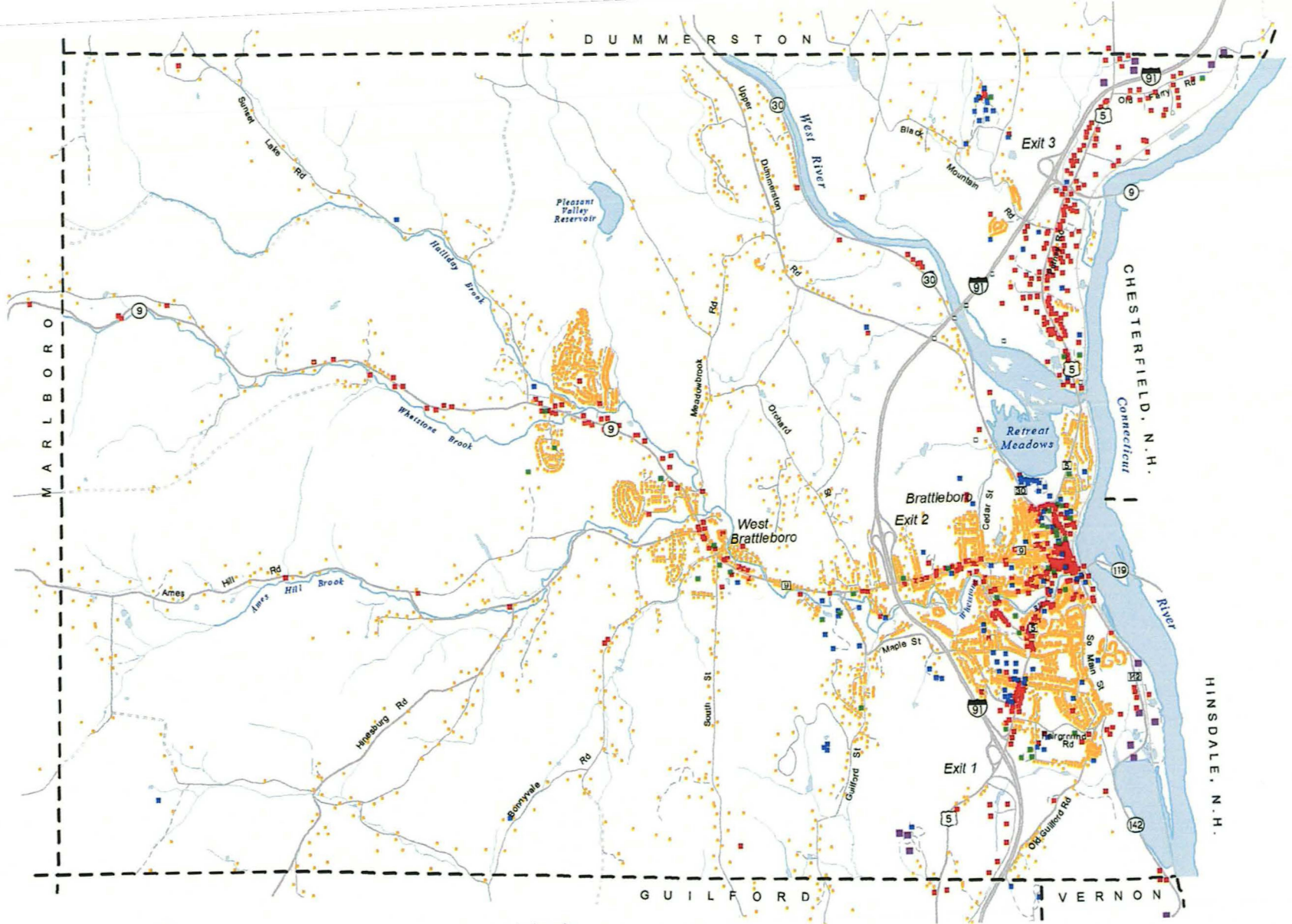
The broad land use pattern in Downtown is fairly well established, but there are opportunities for redevelopment and infill growth. To support Downtown's viability and livability, the Town participates in Vermont's Downtown Program. This enables the Town to receive grants for improvements within the designated area, gives priority consideration for some state-funded grants, and allows owners of income-producing buildings to be eligible to receive tax credits for building improvements (historic, façade, code, and technology). Downtown Designation was first received in 1998 and has been renewed several times. The boundaries of the designated downtown are shown in Figure 12.1.

Downtown Brattleboro Alliance (DBA) is the organization responsible for undertaking revitalization efforts in the Designated Downtown. In recent years, the organization undertook a Retail Market Analysis, secured grant funding for directional and wayfinding signage, and participated in a charrette held by the Vermont Downtown Action Team to identify opportunities to improve the physical infrastructure and economic recovery of downtown post-Tropical Storm Irene. Over \$1.4 million has been accessed by property owners in the downtown since 2005 to improve buildings. Recent Town investments include reconstructing sidewalks, repaving Main Street, and making improvements at Union Station and Depot Street. DBA receives a substantial part of their funding from a special assessment tax on properties in the Downtown Improvement District (DID). Future revitalization activities will include increasing beautification efforts, continuing the façade improvement program, and participating in a downtown master plan process.

Figure 12.1: Designated Downtown District



A Designated Village Center district in West Brattleboro was first awarded in 2005 and has been renewed several times. The boundaries district are shown on Figure 12.2. Village revitalization efforts have focused on community and economic development and improving bicycle and pedestrian safety. In 2014, the Town conducted a bicycle and pedestrian scoping study with funding from the Vermont Agency of Transportation. Community members also met with the Windham Regional Commission and Brattleboro Development Credit Corporation to discuss opportunities for village revitalization. Future revitalization efforts will include



Buildings by Use

- Government/municipal services
- Cultural, educational, health
- Commercial
- Industrial
- Residential
- Unknown/other



Data sources:
 Vermont E911 Board:
 building locations
 Town of Brattleboro Lister's Office:
 building use

implementing the scoping study report and continuing to support stakeholders. The Town will also continue to support property owners and businesses in the Village through the existing Small Business Assistance and Rental Housing Improvement programs. There are several income producing buildings in West Brattleboro Village eligible for tax credits if and when redevelopment opportunities arise.

Downtown and village center designations achieve the following goals:

- Furthering the intent of the Land Use Chapter – Downtown and West Brattleboro Village are important mixed-use districts. The Town Plan identifies the need to make public and private physical improvements in these areas. Continued designation will focus additional resources to help these areas thrive, including the ability to have a special tax assessment in the DID and priority consideration for several grant programs.
- Preserving significant historic, architectural, and cultural heritage – The access to historic tax credits and code improvement tax credits will support redevelopment of older and historic properties, preserving the historic character of the Designated Downtown and Village Center districts.
- Create safe streets and inviting environments for all road users - The Town has benefited from the Downtown Transportation Fund to make improvements in the Downtown and will continue to seek improvements as necessary.

Putney Road north of the Veteran's Bridge continues to serve regional and local shopping needs, as does Canal Street near I-91 Exit 1. Land uses in these areas consist of large grocery stores, auto sales and service, and traveler services, such as fast-food restaurants, gas stations, and motels. There is a noticeable lack of housing in the Putney Road commercial area. The result is a very automobile-dominated area.

Outside of these core commercial areas, there has been a spread of commercial businesses along arterial routes. The area extending along Route 9 west from Edward Heights to Sunset Lake Road has several commercial establishments that service both nearby neighborhoods and the traveling public. There are also several commercial businesses fronting Canal Street, downhill from the hospital to the intersection of South Main Street. This area had historically been residential in nature.

The traffic function of both Putney Road and Canal Street has been diminished in these commercial areas by an excessive number of driveways with direct access to the main road. In addition, the overall appearance of the development along these corridors leaves room for improvement.

Figure 12.2: Boundary of Designated West Brattleboro Village Center



Industrial

Brattleboro has numerous characteristics that make it attractive for industries, including interstate highway access, railroad, the availability of local public transportation, and municipal water and sewer systems. Industrial uses are generally concentrated in six areas: north of I-91 Exit 3 (including Old Ferry Road), along Route 142, at Cotton Mill Hill, in the Exit 1 Industrial Park and Delta Business Campus located off Route 5 south of I-91 Exit 1, and in the Southern Vermont Industrial Park on Technology Drive off Putney Road. Other areas with industrial uses include Frost Street, the Estey Organ Complex on Birge Street, and the Zaluzney gravel pit off Mercury Drive.

From a zoning perspective, Brattleboro has designated zoning districts for industrial land uses. For the most part, these isolated districts are the legacy of Brattleboro's past manufacturing uses. Today, industrial uses are rarely manufacturing, and are mostly light industrial uses, together with distribution and warehousing facilities. Office uses and retail sales are also common within the industrial parks.

While Brattleboro does have vacant lots available for industrial development, the amount of land readily available for use in industrial parks is small. This can be both positive and negative. On the positive side, Brattleboro does not have a lot of vacant industrial buildings. On the negative side, developing these sites may require preparing the land and extending infrastructure (including roads, water, and sewer), all of which adds to the cost of a project.

Flood Risks

Brattleboro has extensive history of flooding, both regional and local flooding. The Hazard Mitigation Committee for the town of Brattleboro concludes that flooding is highly likely in any given year; by type, ice dam and localized street flooding highly likely, inundation flooding and fluvial erosion likely.

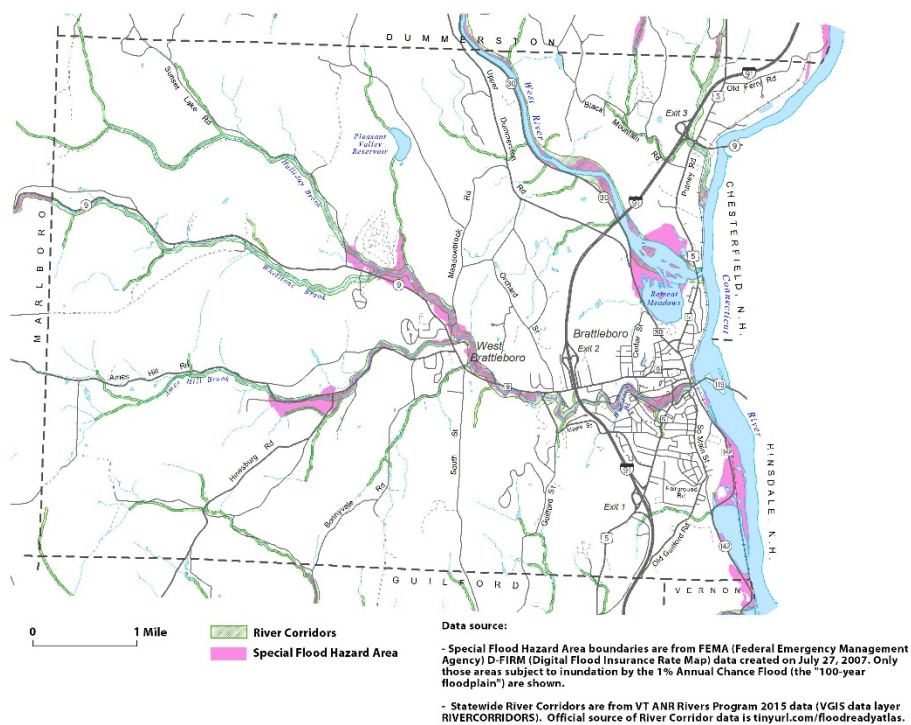
In 2011, Brattleboro experienced wide spread flood damage from Tropical Storm Irene. The Town Plan process paused as the town shifted its focus to recovery. Already identified goals, like waterfront access, maintaining and

enhancing the environment, and focusing growth on developed areas, helped inform recovery. These goals lead the Town to promote buyouts and relocation of structures from the Special Flood Hazard Area. This justified the reconstruction of Town infrastructure in a way that respected the natural environment, including the potential hazards posed by the natural environment, resulting in longer bridge spans and larger culverts.

Flood Hazard

FEMA's flood insurance maps show areas of Brattleboro that are a higher risk of flooding. Brattleboro currently regulates land development within the Special Flood Hazard Area. Figure 12.3 shows the Special Flood Hazard Area as well as the River Corridor area that has been delineated by the State. The Town has also been involved in the NFIP's Community Rating System Program since the early 1990's and seeks to improve the level of certification as feasible.

Figure 12.3: Brattleboro River Corridors and Special Flood Hazard Area



Inundation flooding events primarily affect the Connecticut shoreline and low lying areas along the Whetstone Brook especially in Mountain Home Park at and by Valley Road. This flooding is characterized by lower water velocities, but flood depths can reach up to 7 feet deep and the event may be longer in duration; affecting up to 43 mobile homes in Mountain Home Park. Flood risk is lower along the Connecticut due to the elevation of existing structures as well as dam control on the river.

The Frost Street/Place neighborhood is a low lying residential area that sustained lighter inundation damage during Hurricane Irene; no structures were destroyed. Twenty one structures sustained non-structural damage. Additional repetitive inundation has occurred immediately upstream of the Melrose Bridge, damaging two residences.

Fluvial Erosion Hazard/River Corridor

Vermont Agency of Natural Resources (ANR) has created river corridor maps that show land that is subject to fluvial erosion. This is the area where the lateral erosion is more of a threat than inundation. Fluvial erosion hazard flooding events primarily affect the Whetstone and Crosby Brooks due to the narrow channels in relatively small valleys with steep slopes. Tropical Storm Irene in 2011 created fluvial erosion impacts concentrated along the Whetstone Brook. In Brattleboro, the greatest impacts were to low-lying housing and public infrastructure, with additional damage to commercial properties along the Whetstone. Flash floods typically occur during summer when a large thunderstorm or a series of rain storms result in high volumes of rain over a short period of time. Higher-elevation drainage areas and streams are particularly susceptible to flash floods. Flash floods are likely in Brattleboro, and potential damage to Route 9 and Route 5 could limit access to town as they are major travel corridors through Town and the region. Damage to hill roads is likely to occur from flash floods as the amount of rainfall overloads culverts resulting in loss of roadway.

Ice Dams

Ice dams have occurred on the Connecticut River, West River, and the Whetstone Brook in past years. Ice dams on the Whetstone Brook have resulted in flooding of the low-lying areas of Mountain Home Park and Westgate Drive. Ice dams on the Whetstone have potential to close roads temporarily. Small ice dams occur on an annual basis with higher likelihood in late winter or early spring. The most recent ice dam was by Winding Hill Drive Bridge in the spring of 2014. While common, these events are not recorded in National Weather Service data base.

Localized Street Flooding

Local street flooding events affect portions of the road network with undersized stormwater networks. Flooding interrupts road traffic and impairs emergency response. The increase in intense rain events associated with climate change has led to an increase in localized street flooding. In areas where the flooding occurs near steep slopes, landslides can result from water flowing off roads onto adjacent land. This type of flooding has been most common by the intersection of Main St. and Harris Place, on segments of South Main St. and Western Ave. and by the intersection of Frost, Flat and Elm streets.

Dams

The Connecticut River is used to generate hydroelectric power along its entire length. Dams are located at regular intervals along the river. A failure of any upstream dam could cause damage to downstream facilities. Smaller dams can create localized flooding. Pleasant Valley Lake dam poses flood risks to Mountain Home Park and areas to the east of the Park along the Whetstone Brook. Chestnut Hill Reservoir dam poses risks to Chestnut Hill, Acorn Lane, Cedar Street and Western Avenue area. Dam failures on the West or Connecticut River would result in flooding along both rivers with additional flooding in the lower Whetstone due to inundation. There is no history of regional or local dam failure in Brattleboro.

Areas of Local Concern

Brattleboro's All Hazard Mitigation Plan identifies the following critical facilities and vulnerable settlements that are located in the SFHA and fluvial erosion hazard areas:

- Wastewater treatment plant (recently modernized with 7 of 8 buildings receiving improvements; all improved buildings have been floodproofed to BFE+1);
- Spring Tree Sewage Pumping Station (recently modernized with an elevated emergency generator; anchored LP tank; and floodproofed building to BFE+1);
- Linden Street Well Water Treatment Building (elevated pre-FIRM building with flood shields; has not flooded in major flood events, e.g. Hurricanes Floyd and Irene
- Melrose Terrace – housing for the elderly and disabled individuals.
- Glen Park – housing for elderly individuals.
- Hayes Court -- housing for the elderly and disabled individuals.

- Mountain Home Park – general housing including housing elderly and disabled individuals.

FUTURE LAND USE

The central idea of the Future Land Use Plan is that Brattleboro should grow by investing in established areas rather than in fringe locations. There is an abundance of available land throughout town to accommodate development and a history of low growth, yet it more likely presents hazard challenges (steep slopes, fluvial erosion, etc.). Therefore, topography and infrastructure costs limit the viability of many areas for new development. This Plan seeks to direct development and redevelopment opportunities to areas where growth will minimize expensive new infrastructure, revitalize the area, and help manage the cost of services for town residents.

This Plan focuses future growth along a north-south axis. To achieve this development pattern, this Plan includes both a mixed-use neighborhood center just north of Veterans Bridge and allowing for large-scale residential development in adjacent areas (using the Planned Unit Development (PUD) process). This recognizes the large number of undeveloped parcels in the Putney Road vicinity and the limited public resources available to develop a network of side streets or other public infrastructure. Traditional residential neighborhoods adjacent to downtown should also attract a degree of redevelopment, resulting in greater densities while achieving well-accepted “smart growth” goals and reducing exposure to future flood damage along the Whetstone/Rt 9 corridor. This strategy is compatible with smart growth policies supported at both the state and national levels.

Having land use regulations that are clear, concise, understandable, and accessible is an important tool in facilitating orderly and productive land development. In 2015, the Town adopted a comprehensive new set of Land Use Regulations. These Land Use Regulations implemented many recommendations from the 2013 Town Plan. Some important features of the LUR include:

- Specific standards for frontage landscaping, pedestrian amenities, parking, and signage in all commercial, industrial and mixed-use districts.
- Integration of concepts to reduce density and encourage land conservation in the rural zoning districts. The clustering of lots will allow for open space that can be used for agriculture purpose.
- A maximum density in existing residential neighborhoods to balance the opportunities for infill housing and conversion of larger homes to multi-unit buildings with concerns over neighborhood character and quality of life.
- Specific stormwater management and erosion control provisions. Projects that are not large enough to trigger state permitting are required to comply with specific local regulations. Low-impact development (LID) and green stormwater infrastructure (GSI) techniques are encouraged as a way of managing stormwater onsite to lessen the burden on the town’s system.
- Specific standards for riparian areas defined as land within 50 feet of all mapped surface water and wetland to protect and enhance overall quality, natural function, and ecological health. There is also a riparian setback where natural, woody vegetation must be maintained or re-established

The Future Land Use Plan has also been developed under the assumption that there are specific land use needs for the Town that are set forth herein, and that these land use needs will inform zoning revisions. These needs are:

1. Reduce the Impact of Flooding and Erosion

In August 2011 Brattleboro experienced historic flooding due to Tropical Storm Irene. The flood damage highlighted the importance of making land use decisions that protect public health and safety and prevent loss. A primary goal of this Future Land Use Plan is to minimize the effects of natural hazards: injuries and loss of life; property and environmental damage; and the social and economic disruption caused by an extreme event. The Town’s flood control strategy must include directing land development to areas that are best equipped to handle it. This Land Use Plan considers the relationship of development to the natural geographic

and geologic systems. It considers the critical and sensitive areas, and areas vulnerable to natural hazards, and recognizes that human development can exacerbate flooding.

2. Increase Public Access to the Waterfront

From the first white settlement on the Connecticut River in 1724, Brattleboro turned its attention away from the waterfront; buildings turned their backs on the water, and waterfront access was restricted, given the river's function in moving waste materials and the location of the rail. As waste became regulated and large-scale industries relocated to take advantage of road networks, cities and towns all over the world realized that rivers are economic and natural assets. There are many successful examples of redeveloped waterfronts to encourage people to come back to the water for entertainment, recreation, and quality-of-life amenities.

Public feedback gathered for the development of this Town Plan reinforced the community's desire for public access to rivers. Many important improvements have been undertaken, including the creation of waterfront greenspace on Depot Street; the acquisition and improvement of the West River Trail by the Friends of the West River Trail; and the construction of the West River Playing Fields on Route 30, which include public boat access to the West River and other recreational facilities. The *Design for Resilience in Brattleboro's Lower Whetstone Brook Corridor* envisioned a continuation of the Whetstone Pathway along the Whetstone Brook from Preston parking lot west to just east of the Williams Street bridge. Stone terraces could transform the Preston parking lot into a park amenity, giving residents and visitors to the downtown access to the Brook while allowing for increased flood storage during flooding events. A pathway along the brook would allow for easy movement within the downtown and surrounding neighborhoods.

The development of this Future Land Use Plan has acknowledged this community need and recommends 4 key areas where the waterfront should be accessed to provide economic, recreational, and social benefits to the town. These areas are connected to the Downtown; along the West River; around the Retreat Meadows (including the confluence of the West and Connecticut Rivers); and along Route 142.

3. Improve the Quality of Commercial Areas

Brattleboro has four major commercial districts, including the vibrant Downtown. As of this writing, three separate master plans are in effect to address each commercial area outside the Downtown. Each master plan was written and adopted over a 7-year period (2001–2008), independent of each other and without consideration of each area as a part of the whole Town. An important element of the 2013 Town Plan was been to engage a consultant to review each commercial area, in conjunction with a renewed community engagement process, to formulate a coherent and unified strategy to guide the development of all commercial districts in a complementary fashion to benefit the whole Town.

This plan, *Rethinking Brattleboro's Commercial Districts Report*, has as its focus realizing the goals of each existing Commercial Master Plan through planned revision to the Town's regulatory structure, thereby producing the visual and economic transformations envisioned by each of the plans. An analysis of the economic and demographic trends points to the fact that the slow local and regional growth rate will likely remain slow in the near future. The report points out that from a retail perspective this means that the Town does not need much, if any, added retail acreage for new development, and cautions against providing too much land for retail, as "it will encourage sprawl by making undeveloped land more attractive to developers than the reuse or redevelopment of vacant commercial spaces."¹

This Town Plan identifies the need to make public and private physical improvements in the commercial districts in combination with regulatory changes. These improvements are important, as they help improve the visual character and enhance the quality of life. Market forces are beyond the control of the Town, but implementing physical improvements will heighten visual character and quality of life, with the ultimate goal of attracting investment or reinvestment in properties.

4. Support the Rural Landscape

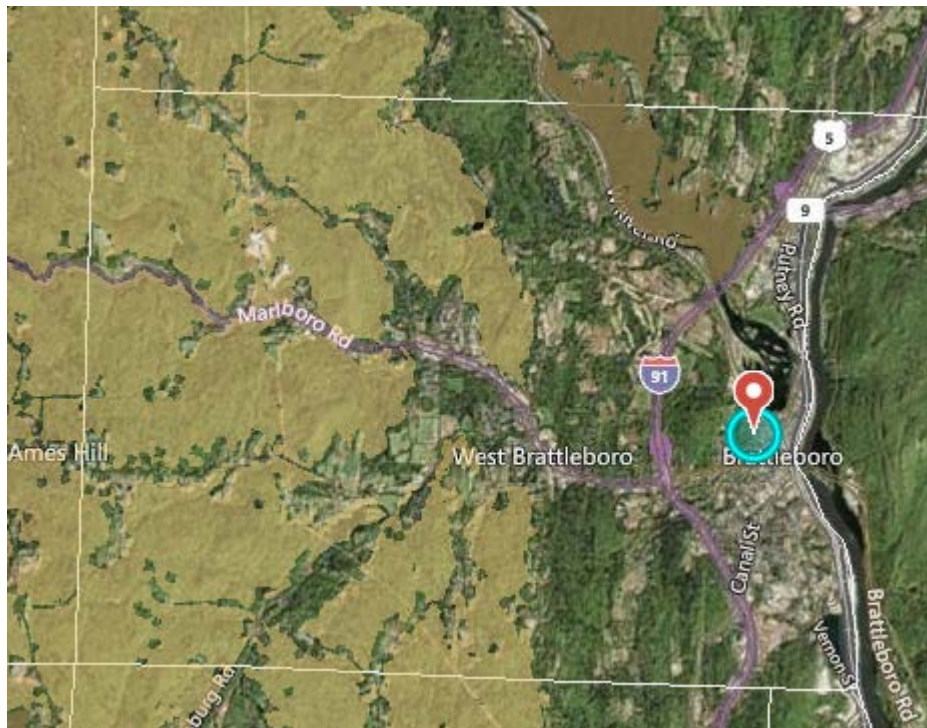
Brattleboro's landscape is integral to the character of the community. Public outreach for the Plan demonstrated strong public support for maintaining and enhancing the Town's farmland, forests, and natural areas. The majority of farmland, forests, and natural areas are zoned "Rural" in the current LUR. This zoning district has a 3-acre minimum lot size (that is, each newly created parcel must be a minimum of 3 acres). It is generally acknowledged that in order to provide a land base large enough for sustainable, economically viable farming and forestry, or to protect the important natural functions or amenities of land, it is important to promote large lot sizes.² A low minimum lot size such as 3 acres puts the land at risk for fragmentation by residential development.

One of the tools that LUR uses to combat the low minimum lot size and to protect the rural, working landscape is a conservation subdivision. A conservation subdivision is designed to protect water quality, retain wildlife, and preserve rural character by clustering housing and thus preserving open space and other natural features of the site.

Brattleboro's forest habitat provide many benefits to the community including wildlife, recreation, fuel, and ecological services (e.g., soil health, water and air quality). Maintaining large, contiguous tracts of forestland helps sustain these benefits. In accordance with State statute, the Future Land Use Plan identifies highest priority and priority forest connector blocks as mapped by the VT Agency of Natural Resources in Figure 12.4. The following strategies are used to minimize forest fragmentation:

- Conservation subdivisions: The identified priority areas are located in the Rural and Rural Residential zoning districts. Subdivision of land is required to go through the Conservation Subdivision process which requires clustering of land development for the protection of natural resources and preservation of open spaces.
- Steep slope regulations: these regulations minimize the amount of clearing that occur on certain slopes and in some cases, will prohibit development, thereby preventing fragmentation
- Use Value Appraisal: Brattleboro has a substantial amount of forestland are enrolled in the State's Current Use program. These parcels have management plans that ensure sustainable harvesting to protect important ecological areas.

Figure 12.4: Highest Priority and Priority Forest Connector Blocks



5. Accommodate Future Industrial Uses

Industrial development is an important component of strengthening the Town’s and County’s economic base. Some industrial development has special locational requirements, including transportation needs (e.g., air, rail, and highway), industrial levels of water, sewer, fire protection, and other urban services in locations that are convenient for employees to reach. Buildings such as the Book Press, Georgia Pacific, and Cotton Mill Hill are examples of this style of industrial development that demanded large buildings with easy access for employees. These buildings are challenging to repurpose due to their size. The Brattleboro Development Credit Corporation (BDCC) has been successful in dividing up several of these buildings to offer smaller leasable “incubator” space.

This Plan recognizes that consideration needs to be given to the uses and lot sizes in the Industrial districts to ensure they meet current and future needs. Due to technological advances, new industries do not necessarily have the same environmental impact or potential conflicts that the larger ones sometimes present. Light industrial uses and flex industrial³ activities are incorporated into other commercial and mixed-use zoning areas is based on the recognition that contemporary industrial uses make fewer direct impacts than traditional “heavy industry.” Specific zoning measures, such as performance standards, properly guide development to ensure that these industrial uses are compatible with the other uses in the district.

6. Maintain the integrity of residential neighborhoods

One of Brattleboro’s great assets is the well-established, mature residential neighborhoods that are within close proximity to downtown. Some of the desirable features of mature neighborhoods include the ability to downtown; transit options; diverse types of housing; and historic character. Many of Brattleboro’s neighborhoods also have a strong social fabric.

The Future Land Use plan recognizes the importance of these neighborhoods. Land use changes enacted by the Town in 2015 included the following actions:

- Adjusting the front and side setback requirements to more accurately reflect the historic development pattern
- Maintaining relatively high densities but establishing a maximum density in existing residential neighborhoods. This balances the opportunity for infill housing and conversion of larger homes to multi-unit buildings with concerns over neighborhood character and quality of life.
- Allowing for limited non-residential uses in the residential neighborhoods

Future Land Use Areas

The overarching role of the Future Land Use Plan is to manage and guide the intensity and location of development in Brattleboro. Based on analysis of current land use conditions and development trends, market attractiveness (including such features as access to water, sewer, streets, and highways), and natural assets (such as scenic, resource, and environmental, many of which appear on the Natural Assets map), this Plan provides for meeting the development needs of the next 8 years with sufficient public facilities and utilities. The Future Land Use Map and the Future Land Use Overlay Map graphically represent the proposed land use in this Town Plan.

Those who consult this Plan should keep in mind the following considerations:

- Boundaries of areas designated for specific land uses should be considered as general and approximate
- The plan is a statement of long-range goals for achieving land use change. Current uses that are in conflict with the Plan must be changed over time.
- Revision of the land use regulations will include reviewing existing zoning district boundaries for compatibility with the Future Land Use Plan. The Future Land Use Map provides direction to the Planning Commission.

Urban Center (UC)

This designation consists of Brattleboro's Downtown. Civic uses, offices, retail and lodging, theaters, restaurants, and service retail for surrounding residents and visitors are all encouraged uses. A variety of residential uses are also encouraged and could include reuse of existing buildings, new construction of multifamily residential over ground-floor retail or office uses. Light industrial uses that can meet specific standards for this area are also appropriate. In order to provide and accommodate preservation of the Town's historic character, development should be designed in accordance with *Design Guidelines for Downtown Brattleboro*.⁵ Pedestrian and bicyclist amenities should be enhanced. Public investments that ensure that the Urban Center remains a centralized activity center, with public, cultural, and recreational uses, are encouraged.

Commercial (C)

This designation will provide a full range of commercial and retail to serve area residents and visitors. Uses may include retail, wholesale, service, and traveler services. This designation can also provide opportunities for low-impact business areas. These would include office, light industrial, technology, and research and development centers. Large-scale residential development, utilizing the PUD process, is also appropriate. Visual impacts of developments will be minimized by requiring buffers, landscaping, and architectural controls. Parking areas will be designed or retrofitted to reduce impervious cover and increase stormwater infiltration, while optimizing parking needs and opportunities through the use of landscaping and low-impact design practices.

Neighborhood Center (NC)

The purpose of this designation is to transform existing commercial areas into higher-density, mixed-use settlements through infill and redevelopment. The intent is to avoid predominantly single-use developments by incorporating a variety of retail, office, and residential uses. Nonresidential uses in these areas tend to be smaller in scale and provide goods or services that people typically should not have to travel far for and need regularly. Employment opportunities for those living in the neighborhood are encouraged.

Developments need to incorporate high-quality architectural design and materials and thoughtful site design to ensure quality of place and should also incorporate connectivity with adjacent uses and attractive landscaping. Development will be designed and scaled to be pedestrian oriented rather than dominated by the automobile. Ways to achieve this include buildings that front the street, vertically mixed-use buildings with retail on the ground floor, offices or residences above, and parking behind the building. Supportive and proportional public and/or quasi-public spaces and places such as plazas and outdoor gathering areas will be included in the development. Particular attention will be given to improving street connectivity to allow traffic to disperse, ease congestion, slow traffic, and make the streets safer for residents.

Streetscape projects that combine various aspects of traffic safety, neighborhood identity, economic development, recreation, and beautification bring a multitude of benefits to the neighborhood.

Mixed Use Neighborhood (MU)

This designation serves as a transitional area between high density or intensity districts and nearby residential neighborhoods. The land is served by municipal water and sewer, a well-developed street network, sidewalks, and, most areas public transit and on-street parking. A mix of residential and commercial uses that support the surrounding residential areas should be allowed. Site planning and design standards will ensure that development protects and enhance the historic and neighborhood character.

Industrial (IND)

This designation supports large-scale growth and development of industrial activities and the development of areas with sufficient access to existing services. Light industrial uses may include warehouses, storage units, light manufacturing, and incidental office uses. Heavy industrial uses may include processing, manufacturing, warehouses, storage units, and industrial support activities. In all cases, screening, landscaping, and adequate access must mitigate the scale of development.

Rural Business (RB)

This designation provides for a transition area between the more compact and urban areas in the east and the more rural areas to the north, south, and west. A mix of residential, commercial, and light industrial uses is encouraged. Exposure to natural hazards limits the scale and intensity of development that can be accommodated. Site planning must include the protection and enhancement of the significant natural features in this area: open fields, forested backdrops, and the stream functions of the Whetstone and Halladay Brooks. Building design that is evocative of New England farm architecture (typically timber-framed structures with roofs in gable or cross-gable form) is desired.

Residential

The purpose of this designation is to provide a variety of housing types. Uses will include a range of densities varying from single-family homes on large lots to multifamily homes. Residential designations are as follows:

- *Rural Residential* allows for the development of predominantly residential uses while retaining the rural character of the outlying areas of Town. This area is generally not served by municipal utilities but does have easy road access to the more compact areas of Town. Wholesale and retail sales for agricultural products grown on the premises, forest product and food processing, and limited tourist commercial uses (e.g., inns, bed and breakfasts, camps, etc.) may be considered if they are carefully designed so that their development does not have an undue impact on traffic, noise, and light pollution. The use of conservation subdivisions is encouraged for new subdivisions in this area so that the rural landscape is preserved. Density bonuses may be considered, with the provision of public amenities such as open space or pathways.

- *Residential* allows for the development of a mix of relatively dense residential housing types, including single-family homes, duplexes, townhouses, condominiums, and apartments. Residential densities range from 7 to 17 dwelling units per acre, and dimensional standards reinforce existing neighborhood development patterns. These are relatively compact areas within the context of larger neighborhoods and are typically located around or near commercial or employment areas to provide convenient access to services and jobs for residents. New subdivisions will connect to existing street networks and will provide more than one built means of access.

Offices are appropriate along Canal Street, High Street, and Western Avenue, if they are done in a manner that preserves the residential character of the area. No retail uses shall be permitted.

Rural (R)

The purpose of this designation is to protect Brattleboro's more remote and relatively inaccessible areas from fragmentation, development, and undue environmental disturbance. The lands identified for this area include agricultural land, woodlots, scenic areas, and lands with significant environmental constraints such as steep slopes, erodible soils, significant headwaters, and aquifer recharge areas. New residential development should be designed to be sensitive to the general character of the rural district and natural environment. The use of conservation subdivisions will be required for new subdivisions in this area.

Overlay Districts

Overlay districts identify special considerations for development or preservation activities that relate to Brattleboro's physical form and physical assets. The overlay districts are not land uses, but indicate that the underlying land uses must address special opportunities and risks associated with the overlay.

Flood Hazard Overlay

The purpose of this designation is to protect public health, safety, and welfare by preventing or minimizing hazards to life and property due to flooding, and to ensure that property owners within designated flood hazard areas are eligible for flood insurance under the National Flood Insurance Program (NFIP). Regulations consistent with guidance from the Federal Emergency Management Agency (FEMA) will be implemented in the Flood Hazard Overlay, which applies to all areas in Brattleboro identified as areas of special flood hazard areas in and on the most current flood insurance studies and maps published by the Department of Homeland Security (DHS), FEMA, and NFIP, as provided by the Secretary of the VT Agency of Natural Resources (ANR) pursuant to Vermont Statute.⁴ These areas are depicted as the Special Flood Hazard Area in Figure 12.3.

Historic District Overlay

The purpose of this designation is to protect the town's historic character by regulating exterior modifications to contributing historic structures and requiring new structure to be compatible with and respond to their historic setting and context. The Historic District Overlay should apply to National Register historic districts in Brattleboro.

FLOOD RESILIENCY PLANNING

There are a variety of other policy and planning initiatives that Brattleboro uses to promote flood resiliency:

- Brattleboro is member of the National Flood Insurance Program (NFIP) Community Rating System (CRS), and has regulated development in the Special Flood Hazard Area since the mid-1980s. Brattleboro flood hazard regulations adhere to higher regulatory standards than FEMA minimum requirements; they require one foot of freeboard, prohibit residential development in the floodway and monitor cumulative substantial improvement with a rolling three year period.
- Brattleboro has taken a science-informed, multi-disciplinary planning approach to flood resilience. The most important work has been to remove residential units from the floodway, through relocation, FEMA

buyouts or implementation of the Special Flood Hazard regulations. The majority of these structures are found in West Brattleboro, where the Whetstone brook descends from steep slopes into a relatively wide floodplain. The dominant land use in this area is low density residential and highway commercial development dating from the 1960s that was built with little regard for flood threat or ecological function. Here the strategy has been to allow the brook to regain access to the floodplain, remove encroachments (including homes) and let the stream reestablish equilibrium through channel migration by reducing conflicts with structures, including public infrastructure. Future work may entail excavation of filled material in the floodplain, which would increase flood storage and reduce flooding downstream.

- The town has partnered with major stakeholders including local affordable housing organizations, the Vermont Department of Environmental Conservation (DEC), the Vermont Department of Housing and Community Development (DHCD), and the US Environmental Protection Agency (EPA). The experience of Tropical Storm Irene underscored the need for a complete rethinking of the land use regulations the town used to guide development. The Land Use Regulations benefited directly from the stream geomorphic assessment study of the Whetstone brook undertaken by DEC in 2008 and the EPA Sustainable Communities Building Blocks program that helped the town explore best practices for conservation subdivisions. In the more rural, low density sections of town to the west (which drain into the Whetstone) new development now must respond to specific criteria to minimize the impact on watershed function and flood hazard, including controls for steep slope development, riparian buffers and inventorying natural assets.
- In 2015 Brattleboro partnered with DHCD on the Vermont Economic Resiliency Initiative (VERI) funded through the Economic Development Administration (EDA) of the US Department of Commerce. This work examined the economic and social impact of flooding on Brattleboro and made recommendations to minimize this hazard. This work updated the data from the 2008 stream geomorphic study and again directed the town's attention to a segment of the Whetstone brook where access to the floodplain could be reestablished on a large open site on the edge of downtown. The Town continues to work with partners to conserve this property with the eventual goal of lowering the elevation of the area to further increase flood storage.
- In 2016, with assistance from the US EPA, the Town hosted a design charrette discuss and develop design options that could reduce the potential for damage from future flooding, protect water quality with green infrastructure to capture and filter stormwater, identify opportunities for infill development and redevelopment, and connect residents and visitors to the Whetstone Brooks through a series of open spaces that provide recreational opportunities. The report, *Design for Resilience in Brattleboro's Lower Whetstone Brook Corridor*, concepts and images that should be included in future plans for Brattleboro related to issues such as green stormwater infrastructure, temporary flood protection measures, redevelopment of key parcels and multi-functional open spaces.
- The Vermont Agency of Natural Resources has encouraged towns to adopt River Corridor rule and has provided incentives under the State Emergency Relief and Assistance Fund for towns that have. As delineated within Brattleboro, the river corridor, particularly east of I-91, encompasses historically important areas of dense, residential and commercial development with important town infrastructure. Simply restricting development in these areas will affect market values and chill the market. At this time, the Town has enacted a 50 ft. riparian buffer as measured from top of bank on all areas outside the Urban Center and Mixed Use zoning districts. Within this buffer there are requirements for a certain amount of natural vegetation and a restriction on uses. The Town will review the River Corridor mapping, update process and rules to see if it make sense for Brattleboro to implement.

- Policy change for bridges and culverts will insure that new or rebuilt structures address storm and floodwater risk. Longer bridge spans allow the free passage of floodwaters, insuring continued emergency access. The free passage of floodwater prevents higher flood elevations upstream. Larger culvert size allows the free passage of stormwater, The HMP identifies priority bridge and culvert projects.
- Both on-site and public stormwater infrastructure has been identified for improvement. Recent stormwater standards are aimed to infiltrate stormwater water on site through the use of low impact development techniques and green infrastructure. Targeted stormwater capacity upgrades for the town will help reduce street flooding, erosion and road wash outs. The HMP identifies Main Street, Canal Street, South Main Street and Western Avenue for targeted stormwater capacity upgrades. The arteries serve critical private and public facilities. Projects will identify pipe segments and basins that require upgrades, design and implement improvements.

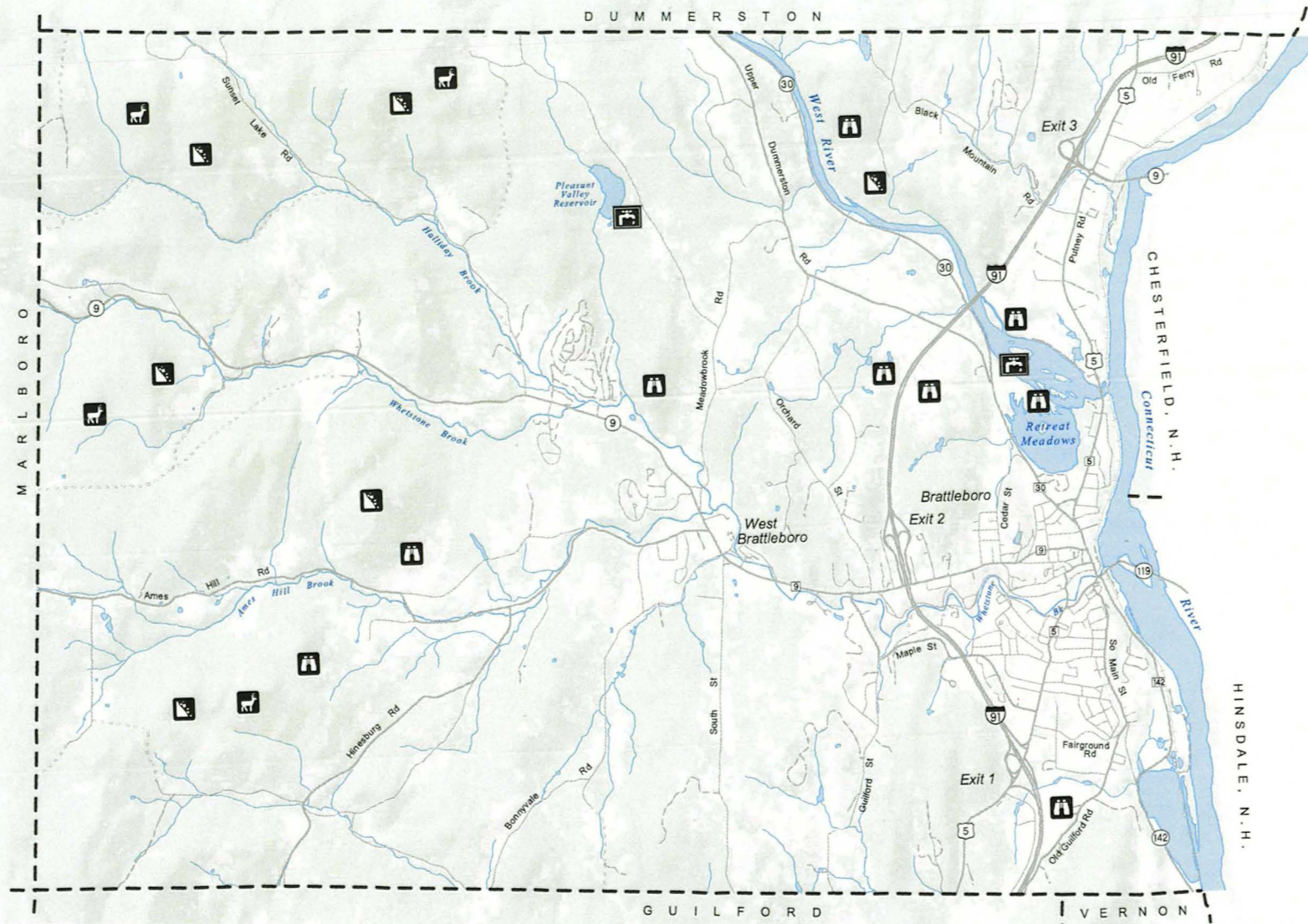
FOOTNOTES

¹ Hawk Planning Resources, Inc., *Rethinking Brattleboro's Commercial District*, (2010), p.13.

² Vermont Natural Resources Council, Community Planning Toolbox, www.smartgrowthvermont.org/toolbox/tools/largelotzoning/.

³ Flex industrial space is space that is designed to easily convert to another use—whether warehouse, office, or light industrial.

⁴ See 10 V.S.A. sec. 753.



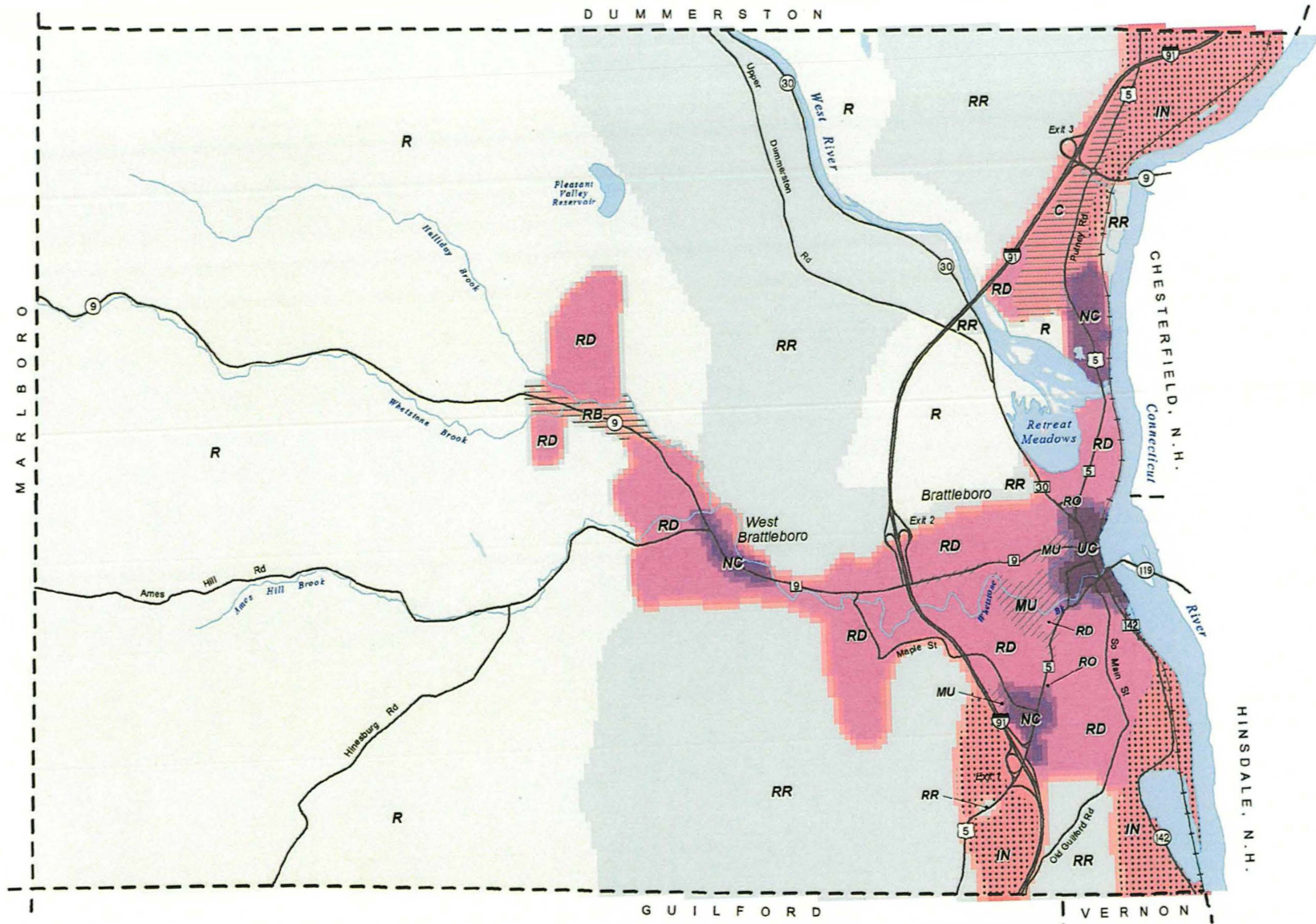
Natural Assests



-  Wildlife habitat
-  Drinking water resource
-  Steep slopes
-  Scenic viewshed

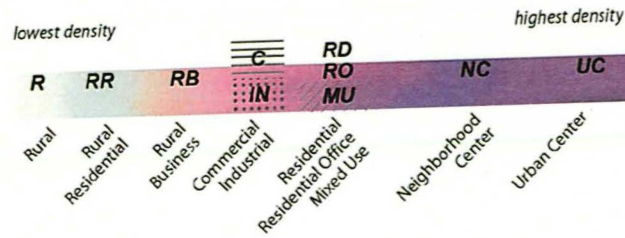
Note: icons represent the existence of a natural asset in a particular area; they do not imply a specific, precise location

Data sources:
Town of Brattleboro Planning Services Department:
Identification of natural assets



Future Land Use

0 1 Mile



Data sources:

Windham Regional Commission:
 future land use areas and overlays illustrating
 future land use areas and overlays described
 in the Land Use Chapter

13 | Town Plan Compatibility

Existing conditions and planned changes can have considerable impact on bordering communities, particularly near the municipal boundary. Therefore, Vermont planning statute requires that town plans evaluate development trends and plans in adjacent municipalities as well as how the plan fits in the regional context. The Brattleboro Town Plan has been drafted with consideration to town plans of Vernon, Guilford, Marlboro, and Dummerston, as well as the Windham Regional Commission Plan. As defined in 24 VSA §4302, compatibility is judged on whether the plan, if implemented, will significantly reduce the desired effect of the other. This chapter provides a summary of the land use plans implemented for each of the communities and considers the compatibility of such efforts. It also addresses how Brattleboro works with other municipalities to develop and implement plans.

Vernon

The Town of Vernon shares a small portion of Brattleboro's southeastern border. The two towns are linked by State Route 142. Vernon adopted its Town Plan in May 2014. About one-third of the shared border is owned by the State of Vermont and is classified as Conservation land. Along Route 142, the Industrial use of Brattleboro continues into Vernon. There does not appear to be compatibility issues between the town plans.

Guilford

Guilford is located to the south of Brattleboro. Their most recent Town Plan was adopted in July 2015. Guilford's Plan calls for a variety of land use designations along Brattleboro's border. Route 5 serves as the major route connecting the two towns. Guilford has designated the area along Route 5 to accommodate the highest density of uses and to encourage a mix of commercial and residential activities. On the Brattleboro side of the boundary, Brattleboro has some industrial uses located in Industrial Parks so they do not have a visual impact. Past the Exit One Industrial Park, Brattleboro is planning for development that is residential in nature. Part of the reasoning is to preserve a gateway to Guilford's Algiers Village as well as to prevent commercial uses from lining Route 5. Guilford asserts that their designation is compatible with Brattleboro because there is an existing Planned Unit Development (PUD) in Brattleboro on the boundary. While this is true, the PUD is not located in a linear fashion along Route 5.

In other border areas, Guilford is planning for residential development along Hinesburg Road and Bonneyvale Road, both roads which continue into Brattleboro. Large lots that are set back off these roads have a Conservation designation which acknowledges their relative remoteness from infrastructure and services. Brattleboro's Future Land Use Plan is compatible with Guilford's Plan.

Halifax

Halifax is located to the southwest of Brattleboro. The corners of the two municipalities touch. Halifax's Town Plan was adopted in October 2014. Halifax has designated the border near Brattleboro as Rural Residential lands. These are lands capable of accommodating a major proportion of the expected growth of Halifax because they generally have slight or moderate physical limitations and are easily accessible by roads. Brattleboro's designation of the land as Rural is compatible with Halifax's proposal.

Marlboro

Marlboro shares Brattleboro's western boundary. Marlboro adopted its most recent Town Plan in October 2013. Low-density residential development currently exists along the roads that run east/west across the shared boundary (VT Route 9, Hamilton Road, Ames Hill Road, and Barrows Road). Marlboro's proposed land use recommends rural residential uses in the area around Ames Hill Road. This is an area designated to accommodate growth of new housing units, while not interfering with viewsheds and critical wildlife corridors. The remainder of

the boundary area is designated as a Conservation Priority. This designation recognizes that the existing land has values related to water resources, wildlife habitat, and/or open space and recreation. The goal of this designation is to retain large, contiguous blocks of undeveloped land by discouraging development. This effectively mirrors Brattleboro's proposal for the shared boundary.

Marlboro's Town Plan notes that one of the most pressing compatibility issues with its neighbors is watershed protection. The Brattleboro Town Plan has taken a comprehensive approach to flooding hazards along the Whetstone Brook and seeks to address the flooding issues at a watershed level. Marlboro is within the watershed of the Whetstone Brook. The Marlboro Town Plan supports maintaining vegetated buffers along watercourses and water bodies. Marlboro is also regulating development on steep slopes. Brattleboro's Town Plan is compatible with strategies that Marlboro is implementing.

Dummerston

The Town of Dummerston shares Brattleboro's entire northern border. Dummerston's most recent Town Plan was adopted in 2014. Currently, on the Dummerston side of the boundary, there is primarily a mix of undeveloped land and low-density residential development. There is a lumber yard that is located over the border in Dummerston but it is accessed via Old Ferry Road in Brattleboro which is zoned for industrial uses.

Dummerston and Brattleboro share two major state routes: Routes 5 and 30. Dummerston's proposed land use supports Rural Commercial development in the Route 5 corridor. Right over the border in Brattleboro there are existing industrial land uses. Given that these land uses are designed to perpetuate existing land uses, there is not a conflict. Along the municipal boundary on the Route 30 corridor, both towns are planning for residential development. Brattleboro's description of the type of residential development desired is more restrictive than Dummerston, as Dummerston is encouraging the most intensive use of land with a wide variety of housing types and retail and service establishments in scale with the neighborhood. However, given the scale of the neighborhood being low-density, this should not be too much of a conflict. The remainder of the boundary area is compatible in that they either support land conservation due to special natural resource values or encourage low-density rural residential development.

Of particular concern for Brattleboro is that the headwater to the town's drinking water supply lies within the Stickney Brook watershed in Dummerston. Dummerston's Town Plan acknowledges this and has designated this as a Conservation area.

Windham Regional Commission

The Windham Regional Commission serves a 27-town region that covers Windham County and towns in Bennington and Windsor counties. The most recent regional plan was adopted September 30, 2014. The purpose of the Windham Regional Plan is to provide guidance for change in the Windham Region that reflects the shared values and concerns of the member towns.

The Brattleboro Town Plan is consistent with the Windham Regional Plan. Brattleboro's Plan demonstrates strong consistency around several key principles. These principles include: preserving and protecting heritage and the natural landscape, revitalizing downtowns, developing livable communities, creating a sustainable economy, promoting energy conservation, and meeting housing needs for all people.

Intergovernmental Cooperation

Brattleboro has a long history of working cooperatively with neighboring municipalities. There is already a close relationship among the various fire departments and the police departments. The educational facilities, especially the Brattleboro Union High School and the Windham Regional Career Center, require articulation among the various elementary and secondary schools. As the extension of the sewer service to Algiers in Guilford shows, Brattleboro's infrastructure can enhance that of its neighbors. Brattleboro's participation with organizations such

as the Windham Regional Commission, Brattleboro Development Credit Corporation, and the Connecticut River Joint Commission, demonstrates the Town's commitment to work for the betterment of the region.

14 | Implementation

Planning is a continuous process. Adoption of the Town Plan is the first step in achieving the vision articulated in the Plan. The Implementation chapter provides a direction forward with recommendations on ways to implement the Town Plan and for continued planning.

The Town Plan is intended to encourage consistent public and private decisions that will result in coherent and sustainable development. To do this, several implementation measures will be used:

Revisions to Land Use Regulations

In 2015, new Land Use Regulations (zoning bylaw and subdivision regulations) were adopted. The LUR was the first comprehensive update to land use regulation in Brattleboro since the 1980's. The Land Use Regulations should be reviewed annually.

Capital Improvement Plan

The Capital Improvement Plan (CIP) represents a guide for financial decisions, annual budgeting, and the coordination of major public investments in the preservation and expansion of the Town's fixed asset infrastructure. The CIP and Town Plan are integrally related and mutually supportive. Capital projects identified in the CIP are designed to support the goals and objectives of the Town Plan. The Town Plan provides a strong basis for making long-term decisions. The CIP should continue to be reviewed and updated annually, with continuous efforts to improve the document and the process to update it.

Annual Budget

The Annual Budget looks at the general operations and maintenance of municipal facilities and the repair of street and highway rights-of-way improvements. Special programs and new initiatives may be used to put recommendations into action.

Grants

This Plan calls on Town staff, and volunteer boards and commissions to be active in implementing projects. Many boards and commissions do not have budgets, and department budgets are tight; therefore, obtaining grants will be an important way to fund projects. For volunteer boards and committees, it can be particularly challenging to research grant opportunities, as this work can be time consuming. Staff liaisons should work with the boards and committees to determine appropriate grant opportunities to pursue.

Flood Protection

Comprehensive flood protection is a major focus of this Town Plan. Flood events are a part of nature and they pose a significant threat to Brattleboro's public safety, economic stability, and environmental quality. This Plan recognizes that the flood protection strategy must be approached at the watershed level and that mitigation and non-structural measures are often more sustainable solutions to flood hazards. The Town will continue to work with property owners, the State, and other organizations to prevent, protect, and mitigate the adverse impact of floods on human health and safety, on valuable goods and property, and on the aquatic and terrestrial environment.

Updates to the Town Plan

In accordance with state statute, the Town Plan should be updated every eight years. These updates will ensure renewal and continued utility of the Town Plan at the state and local level. Plan updates can be a significant undertaking and can result in the identification of new goals, policies, and actions.

The Plan should be reviewed annually by the Planning Commission to make sure the goals, policies, and actions still reflect the community's needs and attitudes, and continue to be responsive to current conditions in the Town. A good time to undertake this annual review is at the organizational meeting that occurs each July, when new

commission members begin their terms.

Implementation Matrix

The matrix on the following pages represents a condensed presentation of all the action items from each of the individual topic chapters. By placing all of the action items in one place, it is much easier to target projects and track progress over time. The following matrix contains an abbreviated description of the policies and actions in the individual topic chapters. It assigns a responsible party and identifies actions in terms of importance by assigning a priority. This matrix also helps to illustrate that just about every action has financial implications, and so it attempts to highlight which resources will be required. If the grant column is checked, it indicates that there may be public or private grants available to undertake the recommended action—not that a grant is the only way to accomplish the project. When an action has no commitment of resources checked, it is anticipated that support will be in the form of letters and via other non-financial commitments. Many actions specifically pertain to updating the land use regulations; the final columns illustrate which regulations are at play.

This matrix is meant to serve as a guide. The boards, committees, and municipal departments involved in implementing it will need to consider the actions and their importance, achievability, and financial feasibility. As such, this document is dynamic and the priority and commitment of resources may change over the life of the Plan.

The following abbreviations are used to indicate responsible parties:

- Ag. Adv.—Agricultural Advisory Committee
- CC—Conservation Commission
- DPW—Public Works Department
- EC—Energy Committee
- En. Coord.—Energy Coordinator
- PC—Planning Commission
- PSD—Planning Services Department
- R&P—Recreation and Parks Department
- R&P Comm.—Recreation and Parks Committee
- SB—Selectboard
- SBAP—Small Business Assistance Program Committee
- SWC—Solid Waste Committee
- TAC—Town Arts Committee
- TM—Town Manager
- TSC—Traffic Safety Committee

Town Plan Implementation Matrix

Chapter Policy	Actions	Lead responsibility	Priority	Commitment of Resources				Land Use Regulations	
				Existing staff	General Fund, operating	Capital	Grant	Zoning Ordinance	Subdivision
ECONOMIC DEVELOPMENT									
2.1 Build partnerships with public and private stakeholder groups to capitalize on significant development opportunities	2.1.1 Participate in regional economic development planning activities	Town Manager	ongoing	✓	✓				
	2.1.2 Participate in efforts to create a Comprehensive Economic Development Strategy (CEDs)	Town Manager	short	✓					
	2.1.3 Support organizations doing economic and community development	SB	ongoing		✓				
	2.1.4 Develop a neighborhood plan for the New Market Tax Credit eligible Census Tract	PSD	short	✓	✓		✓		
2.2 Affordable business infrastructure	2.5.1 Identify potential business opportunities along existing railroad spurs	PSD	long	✓					
	2.5.2 Identify utility and access constraints for parcels in the Industrial Districts	PSD	long		✓				
2.3 Child care	2.3.1 Provide information to childcare providers about resources to help grow the business	SBAP	short	✓					

Chapter Policy	Actions	Lead responsibility	Priority	Commitment of Resources				Land Use Regulations	
				Existing staff	General Fund, operating	Capital	Grant	Zoning Ordinance	Subdivision
ENERGY									
3.1 Measure and analyze	3.1.1 Report annually on energy progress	EC	ongoing						
	3.1.2 Review Town Procurement Policy and make suggestions on energy conservation and efficiency criteria	EC	short	✓					

Town Plan Implementation Matrix *continued*

	3.1.3 Encourage improved energy efficiency of municipal and school district buildings	EC	short						
3.2 Energy conservation and efficiency	3.2.1 Organize program participation to increase residential and commercial energy efficiency and renewable energy	EC, En. Coord.	ongoing	✓			✓		
	3.2.2 Promote the use of the Community Energy Dashboard	EC, En. Coord., SB	short	✓					
Chapter Policy	Actions	Lead responsibility	Priority	Commitment of Resources				Land Use Regulations	
				Existing staff	General Fund, operating	Capital	Grant	Zoning Ordinance	Subdivision
AGRICULTURE									
4.1 Access to farmland	4.1.1 Support conservation organizations preserving farmland	SB	ongoing						
	4.1.2 Inventory agricultural lands	Ag. Adv.	long	✓			✓		
4.2 Access to funding	4.2.1 Expand policies for use of the Agricultural Land Protection Fund	Ag. Adv.	short	✓					
4.3 Community food system	4.3.1 Support community-led initiatives	Ag. Adv.	ongoing						
EDUCATION									
5.1 Educational Resources	5.1.1 Provide opportunities for student engagement on Town boards	SB	short	✓					
	5.1.2 Continue financial support for early education	SB	ongoing		✓				
	5.1.3 Work with colleges to support collaboration efforts	TM or designee	ongoing	✓					
5.2 Healthy and safe school environments	5.2.1 Work to provide students with safe ways to walk or bike to school and town	DPW, PSD	ongoing	✓	✓	✓	✓		
	5.2.2 Participate in community health and wellness initiatives	PSD, PC, SB	ongoing	✓			✓		
5.3 Strengthen job training and workforce development	5.3.1 Develop and build relationships with business community and workforce development organizations	TM	ongoing	✓					
5.4 Lifelong learning	5.4.1 Maintain and develop library programs	Library	ongoing						
	5.4.2 Promoting learning opportunities	Town	ongoing				✓		

Town Plan Implementation Matrix *continued*

HOUSING									
6.1 Existing housing stock	6.1.1 Develop a process to monitor land and buildings to identify threats to neighborhood stability	PSD	long	✓	✓		✓		
	6.1.2 Support programs that preserve and upgrade housing stock	SB	ongoing						
	6.1.3 Research building code enforcement programs	PSD	long	✓	✓				
6.2 Location of new housing	6.2.1 Provide incentives for creating residential units in new or renovated commercial structures	PC	short	✓				✓	

Chapter Policy	Actions	Lead responsibility	Priority	Commitment of Resources				Land Use Regulations	
				Existing staff	General Fund, operating	Capital	Grant	Zoning Ordinance	Subdivision
HOUSING continued									
6.3 Housing redevelopment	6.3.1 Establish density bonus incentives for energy efficient siting and construction	PC	short	✓				✓	✓
	6.3.2 Adopt development standards to promote solar access and community solar	PC	Short	✓				✓	✓
	6.3.3 Disseminate information on energy efficient resources and programs	En. Coord.	ongoing	✓	✓				
	6.3.4 Support regional non-profit rehabilitation loans	SB	ongoing						
6.4 Affordable housing	6.4.1 Support efforts to develop affordable home ownership and rental opportunities	SB	ongoing						
	6.4.2 Evaluate workforce housing demand of local businesses	PSD	long	✓	✓		✓		
6.5 Support innovative housing that is sustainable	6.5.1 Continue to offer PUD bonuses	PC	Ongoing					✓	✓
	6.5.2 Share information about resources and services that extend independent living and reduce energy expenditures	PSD	ongoing						
6.6 Housing discrimination	6.6.1 Disseminate information on fair housing law	PSD	short	✓					

Town Plan Implementation Matrix *continued*

6.7 Support pathways to permanent housing and retention of housing		SB, PSD	ongoing						
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Chapter Policy	Actions	Lead responsibility	Priority	Commitment of Resources				Land Use Regulations	
				Existing staff	General Fund, operating	Capital	Grant	Zoning Ordinance	Subdivision
TRANSPORTATION									
7.1 Complete Streets	7.1.1 Design improvements when undertaking road projects	DPW	ongoing	✓	✓		✓	✓	✓
	7.1.2 Stripe high-visibility crosswalks on major streets	DPW	short	✓	✓				
	7.1.3 Install and maintain proper design and illumination levels of public streets	DPW	ongoing	✓	✓				
	7.1.4 Consider 3- to 4-foot buffer strips between road and sidewalk	PSD	short	✓					✓
7.2 Promote bicycle and pedestrian mobility	7.2.1 Create a priority-ranked sidewalk plan focusing on arterial roads	DPW, PSD	short	✓	✓		✓		
	7.2.2 Develop a “shared road” use paths and trails	PSD	long	✓	✓				
	7.2.3 Improve bicycle storage	DPW	short	✓	✓		✓		
	7.2.4 Secure funding for bicycle and pedestrian system improvements	DPW, PSD	ongoing	✓	✓		✓		
	7.2.5 Secure funding for bicycle and pedestrian systems	PC	short	✓			✓		
	7.2.6 Conduct bicycle and pedestrian audits to validate concern	PSD	ongoing	✓	✓		✓		
7.3 Promote alternatives to single-occupancy vehicles	7.3.1 Support the in-town bus	SB	ongoing	✓	✓				
	7.3.2 Maintain or increase the number and frequency of transportation modes to and in Brattleboro	SB	ongoing	✓					
	7.3.3 Enhance the train station connection to Downtown and other attractions	SB, TM, PSD	short	✓	✓		✓		
	7.3.4 Support state initiatives to improve rail infrastructure	SB	ongoing						

Town Plan Implementation Matrix *continued*

7.4 Freight	7.4.1 Address regional freight needs and mitigate local impacts	SB	ongoing						
7.5 Protect neighborhoods	7.5.1 Use streetscape design to minimize impact	DPW, PSD, PC, SB	short	3	3				

Chapter Policy	Actions	Lead responsibility	Priority	Commitment of Resources				Land Use Regulations	
				Existing staff	General Fund, operating	Capital	Grant	Zoning Ordinance	Subdivision
ARTS & CULTURAL RESOURCES									
8.1 Support creation of prominent art activities, events, and installations	8.1.1 Develop a list of technical resources for artists	PC	short	✓					
	8.1.2 Leverage existing resources to support		ongoing						
	8.1.3 Encourage partnerships that provide development and capacity building								
8.2 Build on the arts and cultural assets	8.2.1 Support signature events and festivals	SB	ongoing						
	8.2.2 Encourage business to incorporate art into developments	PC	medium					✓	
	8.2.2 Make information available about the economic impact of arts	SB, PSD	short	✓					
8.3 Enhance public spaces	8.3.1 Incorporate into Master Plans	PSD, PC	ongoing	✓			✓		
	8.3.2 Support the re-use of vacant or underutilized spaces for Art. Pilot pop-up projects	PC, PSD, SB	ongoing						
	8.3.3 Integrate art into infrastructure	SB	long		✓	✓			
	8.3.4 Provide arts programming at the library	LIB	ongoing	✓			✓		
	8.3.5 Evaluate ways to fund public art	PC		✓					
HISTORIC & SCENIC RESOURCES									
9.1 Support organizations and property owners	9.1.1 Expand the collection, organization, and preservation of records	PSD	ongoing	✓					

Town Plan Implementation Matrix *continued*

	9.1.2 Maintain inventory of historic resources	PSD	ongoing	✓					
	9.1.3 Support efforts to expand the number of historic structures and districts on the National Register	PSD	long	✓	✓		✓		
	9.1.4 Explore joining the Certified Local Government Program	PSD, PC	short	✓					
9.2 Ensure minimal impacts	9.2.1 Consider a local historic district for Downtown	PC	short	✓	✓			✓	

Chapter Policy	Actions	Lead responsibility	Priority	Commitment of Resources				Land Use Regulations	
				Existing staff	General Fund, operating	Capital	Grant	Zoning Ordinance	Subdivision
HISTORIC & SCENIC RESOURCES continued									
	9.2.2 Assist applications with permitting processes and directing towards financial assistance	PSD	ongoing	✓					
9.3 Adaptive reuse of historic structures	9.3.1 Promote tax incentives, loan, and grant programs	PSD	ongoing	✓					
MUNICIPAL FACILITIES & SERVICES									
10.1 Police and Fire	10.1.1 Assess the impact of new development on fire protection capabilities	PSD	ongoing					✓	✓
	10.1.2 Pursue grant opportunities for equipment and training	SB	ongoing				✓		
10.2 Maintenance of municipal utilities	10.2.1 Maintain systems to meet state and federal standards	SB, DPW	ongoing	✓	✓	✓	✓		
10.3 Stormwater management	10.3.1 Evaluate feasibility and options for establishing a stormwater services enterprise fund or program	DPW	long	✓	✓		✓		
	10.3.2 Work with property owners to address stormwater and infrastructure needs	DPW, PSD	long	✓			✓		
10.4 Consistency with land use practices and development and Town's future planning	10.4.1 Adhere to goals and policies of the Town Plan	SB	ongoing	✓					
	10.4.2 Coordinate the CIP and Town Plan	SB	short	✓					

Town Plan Implementation Matrix *continued*

10.5 Developer agreements	10.5.1 Developer agreements to help pay for impacts to public service and infrastructure	SB	ongoing	✓						
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Chapter Policy	Actions	Lead responsibility	Priority	Commitment of Resources				Land Use Regulations		
				Existing staff	General Fund, operating	Capital	Grant	Zoning Ordinance	Subdivision	
MUNICIPAL FACILITIES & SERVICES continued										
10.6 Location of public facilities and services	10.6.1 Support compact growth, neighborhood revitalization, and sustainable new neighborhood design	SB	ongoing	✓						
10.7 Library services	10.7.1 Pursue grant opportunities to enrich the collection	Library	ongoing	✓			✓			
	10.7.2 Maximize the benefits of fiber optic	Library	ongoing	✓	✓		✓			
10.8 Recreational opportunities	10.8.1 Promote recreational activity	R&P	ongoing	✓	✓					
	10.8.2 Continue cooperative use of facilities and fields	R&P	ongoing	✓						
10.9 Parks and mini-parks	10.9.1 Create a Parks Master Plan	R&P	long	✓	✓		✓			
	10.9.2 Support civic and garden clubs/ organizations in beautification	R&P, R&P Comm.	ongoing	✓			✓			
10.10 Use parking technologies that offer customers and policy makers maximum flexibility	10.11.1 Use parking technologies that offer flexibility	TSC, SB	ongoing		✓		✓			
10.11 Solid waste disposal and recycling		Town	ongoing	✓	✓					
NATURAL RESOURCES										
11.1 Wildlife corridors, wetlands, and riparian habitats	11.1.1 Maintain Class I wetlands in natural state; comment on applications for state permit	CC, PC	short	✓				✓		
	11.1.2 Maintain riparian buffers for all surface waters	PC	short	✓				✓		

Town Plan Implementation Matrix *continued*

Chapter Policy	Actions	Lead responsibility	Priority	Commitment of Resources				Land Use Regulations	
				Existing staff	General Fund, operating	Capital	Grant	Zoning Ordinance	Subdivision
NATURAL RESOURCES continued									
	11.1.3 Support land acquisition or conservation easements	CC, SB	ongoing	✓			✓		
	11.1.4 Conduct a natural resources inventory to better understand Brattleboro’s natural heritage	CC	long	✓			✓		
11.2 Invasive species prevention	11.2.1 Educate on identification, threats, and control of invasive species	CC	short				✓		
	11.2.2 Cooperate with other groups to address threats	CC	ongoing				✓		
	11.2.3 Remove existing invasive species, in coordination with Town-initiated work projects	Town	short	✓	✓				
	11.2.4 Involve Town personnel in removing invasives on town properties and road rights-of-way	DPW, R&P, CC	long	✓	✓				
11.3 Maintain and enhance urban forest cover	11.3.1 Complete the tree inventory	Tree Board	long				✓		
	11.3.2 Develop a plan for street trees to increase stock, species diversity, and appropriate plantings	Tree Board, CC	long		✓		✓		
	11.3.3 Encourage capital projects to include consideration of the benefits of street trees and an enhanced urban forest cover	Tree Board, CC, SB, TM	long	✓					
	11.3.4 Continue participation in the Tree City USA program	Tree Board	ongoing	✓					
	11.3.5 Seek grants to fund public tree planting	Tree Board	ongoing	✓			✓		
11.4 Stormwater and erosion control	11.4.1 Strengthen regulations that limit the impact of development on stormwater	PC	short	✓			✓	✓	

Town Plan Implementation Matrix *continued*

Chapter Policy	Actions	Lead responsibility	Priority	Commitment of Resources				Land Use Regulations	
				Existing staff	General Fund, operating	Capital	Grant	Zoning Ordinance	Subdivision
NATURAL RESOURCES continued									
	11.4.2 Develop educational materials for a better understanding of green infrastructure benefits	PC	Short	✓					
	11.4.3 Encourage the use of permeable pavers and porous blacktop	PC	short	✓				✓	
	11.4.4 Support regenerative soil practices	PC, CC	short					✓	
11.5 Community trail system	11.5.1 Develop trails that promote aesthetic views, safe conditions, and minimize negative environmental impacts	CC	ongoing				✓		
	11.5.2 Provide trail links to destinations	CC	long				✓		
	11.5.3 Work with nonprofits and land-owners	CC	ongoing	✓					
11.6 Promote, sponsor, and organize events to connect residents to the natural environment		CC	ongoing	✓					
LAND USE									
12.1 Direct development to existing developed areas	12.1.1 Maintain zoning districts consistent with the Future Land Use Map	PC	ongoing	✓				✓	
	12.1.3 Redevelop underutilized and vacant commercial and industrial sites	PC	ongoing	✓					
	12.1.4 Utilize EPA and State grants to assess and cleanup hazardous sites	PSD, PC	Ongoing	✓			✓		
12.2 Flood hazard protection	12.2.1 Continue to participate in NFIP and take advantage of preferential ratings	PSD	ongoing	✓				✓	
	12.2.3 Prohibit structures in the floodway	PC, CC, SB	ongoing	✓				✓	
	12.2.4 Support land conservation along the Whetstone Brook	PC	ongoing	✓					
	12.2.5 Preserve areas for natural storage in floodplains	PC, CC	long	✓				✓	

Town Plan Implementation Matrix *continued*

	12.2.6 Study cost and feasibility of temporary flood protection measures	PC, CC	long	✓			✓		
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Chapter Policy	Actions	Lead responsibility	Priority	Commitment of Resources				Land Use Regulations	
				Existing staff	General Fund, operating	Capital	Grant	Zoning Ordinance	Subdivision
LAND USE continued									
12.3 Watershed approaches to flood hazard reduction	12.3.1 Regulating development on steep slopes	PC	ongoing					✓	✓
	12.3.2 Improve street connectivity	PC	ongoing					✓	✓
	12.3.3 Integrate green infrastructure practices into public and private developments.	Town, PC	short	✓		✓		✓	✓
12.4 Attractive commercial appearance	12.4.1 Maintain design guide- lines	PC	ongoing					✓	
	12.4.2 Create a Downtown Master Plan	PSD	short	✓	✓		✓		
	12.4.3 Require permits for repaving and restriping parking lots, driveways and aisles	PC	short	✓				✓	
12.5 Public access and views to the waterfront	12.5.1 Designate a path connecting Depot Street, railroad bridge, and Hinsdale	CC	short	✓			✓		
	12.5.2 Secure easements to create trails	PC	long	✓				✓	✓
	12.5.3 Support improvements to West River Trail	SB	ongoing						
	12.5.4 Site, design, and orient development to the river	PC	short	✓				✓	
	12.5.5 Enhance Depot Street greenspace	R&P	short	✓	✓		✓		
12.6 Provide land for more intensive industrial uses	12.6.1 Encourage new project in existing industrial projects	PC	ongoing	✓				✓	
	12.6.2 Minimize impacts of industrial land uses on adjoining land use	PC	ongoing	✓				✓	
12.7 Maintain and enhance quality of life in neighborhoods	12.7.1 Engage local communities in neighborhood planning processes	PC, PSD	long	✓			✓		
	12.7.2 Support efforts to provide neighborhoods with social amenities	PC, PSD	ongoing	✓			✓		