

PURPOSE & VISION

our plan for a healthy future

Why should we plan for a healthy future? Health and well-being is the common theme that emerged as we developed this plan. The health of our economy, environment, neighborhoods, and city government have direct and indirect effects on the physical and mental health of city residents. And conversely, the health of residents affects many other aspects of our city. Promoting physical, mental and social health in Barre City is an investment in our future economic prosperity and revitalization efforts.

Barre City faces many challenges in planning for the future. The decline of the once-dominant granite industry means that we must build a new, more diversified economy. We must find new uses for the vacant, obsolete and under-utilized buildings and lands that are no longer producing granite monuments and building materials. We must re-train a workforce originally focused almost exclusively on manufacturing granite products.

These challenges, while daunting, are not insurmountable given the assets we have to draw upon. Barre City has the raw materials (land, buildings, infrastructure, transportation systems, and an available workforce). Our community has a tradition of entrepreneurship and a strong manufacturing heritage. The Main Street reconstruction project has already built on those assets, and is injecting a positive new energy into our city.

Without the support and participation of an engaged citizenry, Barre City's revitalization efforts could falter. At the core, these efforts are about investing in all of us – the people who live and work in Barre City – so we can achieve our goals and improve our lives. For that reason, the over-arching purpose of this plan is to improve the health and well-being of those who live and work in Barre City.

Where are we headed? Our plan for a healthy future recognizes that Barre City needs:

- To attract and retain businesses that pay a living wage, provide health insurance benefits, and match existing levels of workforce education or provide job training.
- To attract and retain residents, particularly households with moderate to higher incomes.
- A transportation system that enables all residents to conveniently and safely travel around the community, accessing homes, jobs, schools, parks, shopping and services.
- A system of public utilities that is reliable and well-maintained, that has affordable rates, and that is capable of supporting growth.
- Access to reliable, affordable and clean sources of energy.
- A quality school system that prepares students for higher education, employment and life-long learning.
- To provide the community services and amenities that foster an attractive quality of life without placing an excessive burden on taxpayers.
- Air that is safe to breathe, water that is safe to drink, land that is safe to use, and access to green spaces, parks and undeveloped areas where residents can recreate and enjoy nature.

What is the role of this city and this plan? City policies and actions can play a significant role in creating a healthy community that provides a high quality of life for all residents. Protecting public health, safety and welfare is at the core of many city policies and actions, yet previous plans did not directly address the topic.

In this plan, we will be highlighting connections between city policies and actions, and the health and well-being of residents. We will present measurable benchmarks that can be used to evaluate how we are progressing towards our vision of a healthy future for Barre City.

Why focus on health? Health is becoming an increasing concern at the individual, municipal and state level. Healthcare now represents approximately 20 cents of every dollar spent in Vermont, and 1 in 3 of the state's jobs are in the health sector. The state is presently engaged in a major health reform effort to implement a single-payer system of health insurance coverage for all Vermonters and control the rate of growth in healthcare costs. For this effort to be successful, there will need to be more attention paid to the effects of our decisions – at the individual, municipal and state level – on health.

Vermont ranks as one of the healthiest states in the nation, but the average Barre City resident fares less well on common measures of health than the average Vermont resident. Our population includes a much higher proportion of individuals and families living below the poverty line. Barre City also has many other residents who face health disparities, including those who are elderly, disabled, and recent immigrants, as well as individuals who have experienced addiction, homelessness and involvement in the criminal justice system. All of these groups have a greater need for healthcare and related services. The challenges we face make our city an excellent barometer of the effectiveness of initiatives and programs aimed at improving health outcomes.

While Vermont is in the vanguard of health reform, there are communities around the country exploring ways to improve their residents' health and quality of life. Many of these communities are realizing how significantly our physical environment affects our health. In response to current challenges, such as increasing rates of obesity and adapting to climate change, there has been renewed interest in the relationship between city planning and public health, and their shared goal of improving human well-being.

The U.S. Centers for Disease Control and Prevention's Health Impact Pyramid clearly shows that "Socioeconomic Factors" and "Changing the Context" have the largest impact on population health. It is these very factors that are addressed in this plan. By working to create a community with safe and affordable housing, educational opportunities and excellence, pedestrian-friendly streets, and ample recreation opportunities, for example, we can have a profound impact on the health of city residents.

our vision of a healthy barre city

Imagine that it was one of those beautiful summer evenings in Vermont. The weekend had arrived and you were walking downtown to do some shopping and socializing. Downtown Barre was a hopping place and you ran into many friends and neighbors who were also enjoying the downtown scene. Some had biked in on the regional path from nearby communities.

After picking up some local produce and other groceries at the market, and finding a few other items you needed at other downtown shops, you decided to grab a bite to eat. The restaurants were busy, as usual, so while waiting for a table you struck up a conversation with the fellow sitting next to you at the bar. He was visiting Vermont on vacation and here he was in Barre City. A few short years ago, you would have found this hard to imagine.

As you talked, it became clear that your new acquaintance really liked what our community had to offer. He and his family had spent the day learning about our granite heritage by visiting the History Center, Granite Museum, cemeteries, and the Rock of Ages Quarry. He recognized that unlike many postcard Vermont towns, Barre City was a real place with down-to-earth folks, the kind of community where he would want to work and raise a family. People were all very friendly and it was clear that people here took pride in their city, its heritage and its sense of place.

You tell him that Barre City wasn't always this nice, but downtown revitalization started with the upgrade of our Main Street business area. This was really just the catalyst that people were waiting for. With a desire to revive Barre City's glory days, residents came together and worked step-by-step to turn our city around. So now we are enjoying the fruits of our labor.

Your new friend said that it was clear to him that Barre City was really about its people, its rich blue-collar heritage and its residents striving to make this city the best it can be. You thank him for the compliment and tell him that you hope to see him in Barre City again.

FRAMEWORK & PROCESS

the framework for our plan

This plan includes four elements:

- **Introduction** that: presents our vision of a healthy future for Barre City; establishes the framework within which the plan was developed, and describes our planning process; and provides a snapshot of the city.
- **Strategic Plan** that: summarizes the key points about our present condition; identifies the issues and challenges we face, as well as our strengths and opportunities; establishes goals and strategies; identifies specific actions to implement the goals and strategies; and sets benchmarks by which we can measure our progress towards achieving our vision of a healthy future for Barre City.
- **Community Profile**, which serves as the foundation for the plan and which: inventories and analyzes current conditions in Barre City; and projects future trends and needs.
- **Appendices** that: consist of a variety of plans, studies, maps and data; and supplement the community profile.

This plan is intended to be a guide for the achievement of short-term and long-term community goals through public investments, regulations and other implementation programs. Through this plan, Barre City residents and government seek to:

- Define our vision for the city's future.
- State our shared community values.
- Balance competing interests and demands.
- Address both current and long-term needs.
- Promote appropriate revitalization, growth and development.
- Reflect regional conditions and consider regional impacts.
- Be consistent with statewide goals and policies.
- Offer specific guidance while retaining enough flexibility to be useful when faced with unforeseen circumstances.

This plan also serves as a thorough research document of the community's present condition — our issues, challenges, strengths and opportunities. While writing this plan, we inventoried existing resources and conditions, and assessed likely future trends and needs in the city, region and state. Factors we considered included the:

- Capability of land to support revitalization, growth and development in the city.
- Availability of community facilities and services necessary to support revitalization, growth and development in the city.
- Need to improve undesirable conditions, revitalize neighborhoods, and improve our built environment.
- Interrelationship and compatibility of envisioned changes with existing conditions and development patterns.
- Potential effects of envisioned changes on other policies of the city and region.

This plan follows the framework for municipal plans established in state law (24 V.S.A. Chapter 117). The strategic plan and community profile both incorporate the required elements (land use, energy,

transportation, utilities and facilities, housing and economic development). Our strategic plan includes:

- Statement of objectives and policies.
- Recommended program for the implementation the stated objectives and policies.

This introduction addresses the compatibility of our plan with the plans of neighboring communities and the region, and describes our planning process. The plan is also consist with Vermont's 13 planning goals.

our planning process

The citizens and government of Barre City have a long history of planning for the future of our city. For five decades, we have had an adopted municipal plan, which as been regularly revised and updated:

- 1963 — First municipal plan was prepared as a joint city and town project. It included a land use plan, community facilities plan and a traffic plan.
- 1971 — A less comprehensive study and plan was completed.
- 1980 — A new plan was adopted addressing future land use, transportation and parking, and community facilities.
- 1985 — A new plan was prepared and adopted and then readopted in 1990.
- 1992 — A comprehensive new plan was developed, adopted and formed the basis for the current plan.
- 1994 — An economic development plan was developed.
- 1997 — The plan was readopted with amendments and the 1994 economic plan was included as addendum to the plan.
- 2003 — The 1997 plan was readopted with the addition of 2000 census data.
- 2005 – The 2003 plan was substantially revised and updated.
- 2010 – The 2005 plan was re-adopted with minor amendments.

Approximately once each decade since 1980, the Barre City Planning Commission has substantially revised or rewritten this plan in light of the ongoing evolution of our community. Each time, residents have been invited to participate in planning for the future of our community.

During the most recent three-year planning process, the Planning Commission distributed comment cards asking residents to share their vision for the city, held a series of public workshops, and shared information through traditional and social media. The Planning Commission also reached out to existing committees, organizations, city staff and officials, and other stakeholders for direct input while writing this plan.

The Planning Commission is responsible for preparing the plan, distributing the plan, holding public hearings on the plan, and submitting it to the City Council for consideration. The City Council is required to hold at least two additional hearings before adoption.

Bringing plans to reality can be achieved by passing and enforcing ordinances (regulatory) and by providing services and making public improvements (non-regulatory). Zoning and subdivision regulations are two important mechanisms for implementing the vision for revitalization, growth and development set forth in the city plan. Barre City has had a zoning law in place for more than 60 years. Our land use regulations have also been regularly revised and updated:

- 1950 — First zoning ordinance for the City of Barre was adopted creating three zoning districts: Residential, Commercial and Industrial.

- 1968 — First revision created a Light Industry zone.
- 1974 — A complete overhaul of the ordinance was completed forming the basis for the current zoning districts.
- 1985 — Flood Hazard Area regulations adopted.
- 1986 — Subdivision Regulations adopted.
- 1996 — The Development Review Board was created.
- 2000 — Design Review Districts were created.
- 2003 — Total re-write of Zoning Ordinance for clarification of regulations and uses.
- 2006 – A Downtown Mixed Use district was created, the Bisson Farm area was rezoned, PUD regulations were adjusted for entire city, and minimum lot sizes were changed in PR district, along with other smaller changes.
- 2010 – Changes made to the sign regulations, enforcement, and general provisions.

Barre City has also had a long history of non-regulatory actions that support the vision for revitalization, growth and development set forth in the city plan. Most recently, the city has:

- Upgraded our municipal water and wastewater systems.
- Expanded public parking in our downtown.
- Installed energy-efficient lights in City Hall and the auditorium.
- Installed a hydro-electric unit in the water line on Nelson Street.
- Undertook various brownfield assessments and clean-up of polluted sites, such as Enterprise Aly.
- Applied for grants to help businesses expand or move into the city.
- Developed a capital budget to plan for future equipment and vehicle purchases.
- Completed the long-planned North Main Street Reconstruction project.

This plan recommends additional regulatory and non-regulatory actions to continue the substantial progress we have made in recent years towards revitalizing our city (see the Strategic Plan).

our plan in a regional context

While the primary purpose of this plan is to guide the future revitalization, growth and development of Barre City, we recognize that our community is part of a larger region. Our decisions can affect our neighbors, and likewise their decisions can affect Barre City. As part of developing this plan, the Barre City Planning Commission considered the Berlin Town Plan, the Barre Town Plan and the Central Vermont Regional Plan. No inconsistencies between these plans and our plan for Barre City appear to exist.

Berlin Town Plan. Berlin is west of Barre City. Route 302 and Route 62 connect the two municipalities, and the Stevens Branch of the Winooski River flows from Barre City into Berlin. The forested hillside south of Route 62 continues across the city line into Berlin.

The Berlin Town Plan was most recently revised and readopted in 2012. Both plans recognize the forested hillside south of Route 62 as a sensitive natural resource through planning areas the recommend low-density residential, conservation or recreation uses. Both plans share a similar concern about poorly-managed highway commercial businesses along the Route 302 corridor, and recommend actions to revise regulations to facilitate appropriately-scaled and -designed development. Both plans also speak to the critical need to maintain and restore the natural floodplain along the Stevens Branch near the municipal boundary.

Barre Town Plan. Barre Town surrounds most of the city, reflecting the fact the city was separated out from the town in 1895. Route 302 and Route 14 serve as major transportation routes between our two communities. In addition, numerous side streets and neighborhoods extend over municipal lines.

Our two communities have a long history of sharing resources including wastewater, water, stormwater utilities and school operations. Many residents have lived in both communities and many facilities, services and amenities located in Barre City are used by both town and city residents. There is a recognized need for greater coordination and cooperation between our municipalities to improve government efficiency and equitably finance the facilities, services and amenities we share.

All of the land in Barre Town that adjoins the city is zoned residential. This plan recommends that most of the land along the city line continue in its present use as residential neighborhoods. Along the highway corridors this plan recommends a reduction in the density and intensity of use closer to the city line.

Central Vermont Regional Plan. Barre City is an active member of the Central Vermont Regional Planning Commission, which includes 23 municipalities in Washington and Orange counties. CVRPC staff reviewed this plan before it was adopted and found it to be compatible with the regional plan and state planning requirements. A central theme of the 2006 Regional Plan is the “preservation and enhancement of the quality of life for all Central Vermont residents,” which aligns with our focus on a “healthy future for Barre City.”

OVERVIEW OF BARRE CITY

Barre City, formed and separated out from Barre Town in 1895, is a community of four square miles and 9,000 residents located in Central Vermont. Our city developed and became known as the “Granite Capital of the World” in the late-19th century when the arrival of the railroad in 1875 spurred the rapid growth of the granite industry. Between 1880 and 1890, Barre’s population more than tripled as stoneworkers from around the world migrated here with their families. These skilled craftsmen extracted, cut, shaped, polished and sculpted our “Barre gray” granite into building materials, monuments and memorials that were exported around the country and world. The booming granite industry fueled the development of Barre City. But as is the case with many American cities that relied on a single industry, our once vibrant community faced a challenging period of economic decline and stagnation when the granite industry began to contract in the mid-20th century.

Today, our city is entering a new period of revitalization. Barre City is preparing for future growth and development, and we are actively working to encourage private investment in our city. We have recently completed a \$17.5 million reconstruction of North Main Street, that replaced the public infrastructure below and above ground in our downtown business district. This project was a complete face-lift for downtown Barre City and is the cornerstone of our revitalization plans. And it is working – only a few months after work was completed on North Main Street, construction of City Place and rehabilitation of the Blanchard block began. Our successful pursuit of a TIF (tax increment financing) district in 2012, will make it possible for the city to fund other critical improvements downtown and keep our revitalization efforts moving forward.

Barre City is a 10 minute drive from Exit 7 on Interstate 89 and 15 minutes from Montpelier. U.S. Route 302, a major east-west route through New England, brings travelers through downtown Barre City where the highway serves as our main street. Vermont Rail runs through Barre City to Montpelier where it connects to New England Central Railroad. Many of our industrial properties abut the rail line and have the potential for rail service. The regional Knapp airport is located four miles outside the city. There is public transit service linking Barre City to neighboring communities. Today we have ample public parking in our downtown, and we are actively planning to provide additional parking to meet future demand. The city’s wastewater treatment plant has 900,000 gallons per day of uncommitted capacity, and our water treatment facility has nearly 2 million gallons per day of excess capacity.

Barre City is located at the junction of two valleys, carrying the Stevens and Jail Branches of the Winooski River. The Stevens Branch runs through our downtown, with the rail line and Route 302 sharing the relatively narrow valley. The valley floor is densely developed with residential neighborhoods extending up into the flat-topped, gently rolling hills surrounding downtown Barre City. To the north and west, where the terrain is steeper, the hillsides remain largely undeveloped and forested. The southwestern edge of the city has a more rural character, with farmland extending over the city line from a portion of Barre Town that remains largely agricultural.

ECONOMIC DEVELOPMENT

planning for economic development

Barre City recognizes the connection between the health and well-being of our local economy and of our residents. To achieve our vision for a healthy future, Barre City needs to attract and retain businesses that pay a living wage, provide health insurance benefits, and match existing levels of workforce education or provide job training.

A vital, balanced and resilient local economy is essential for community well-being. Studies have shown that a strong economy is a good indicator for the health of community residents. By strengthening the local economy, we can create and retain desirable jobs that provide a good standard of living for workers and their families. Increased business activity, personal income and wealth will increase our tax base, allowing the city to provide affordable community services and amenities.

What creates a good environment for economic development? Ask business owners and economic development specialists that question and some common themes emerge:

- Lower taxes
 - Less regulations
 - Fair and efficient permitting
 - Economic development incentives and programs
 - Quality, availability and affordability of appropriate space/land
 - Quality, availability and affordability of infrastructure (transportation, water/sewer, communications, electricity, etc.)
 - Workforce availability and skill, and workforce training opportunities
 - Quality of life needed to attract and retain skilled/trained workers
 - Level of commitment to and investment in the community's future by the municipality, residents and other business owners
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key points

1 Granite Industry. Barre City developed as an industrial and manufacturing center, largely focused on a single product - granite. The city's economy has been affected by declines in the manufacturing sector generally, and the granite industry specifically, that began in the second half of the 20th century. Without a strong economic engine, our economy has been largely stagnant in recent decades – experiencing neither rapid decline nor growth.

2 Facilities and Infrastructure. The contraction of the industrial and manufacturing sectors has left our city with a substantial amount of vacant, obsolete or under-utilized land and buildings. While clearly a challenge, these sites and buildings also present an opportunity for new uses and revitalization. The basic facilities and infrastructure needed to support a healthy local economy already exist in Barre City.

3 Downtown Revitalization. Downtown Barre also serves as a regional commercial center. The second half of the 20th century saw changes that weakened the vitality of the downtown business district as retail activity shifted away from Main Street. As a result of our sustained downtown revitalization efforts, a turnaround has begun on Main Street, which the city hopes to bolster through the recently completed North Main Street reconstruction project and future plans for further reinvestment in the downtown’s public infrastructure and spaces.

4 Labor Force. Barre City’s granite heritage has resulted in a community that takes pride in and has great respect for the work of our skilled labor force. The city also has a strong tradition of entrepreneurship and successful home-grown businesses. In addition to the physical resources – infrastructure, space, transportation – needed to support economic development, the city has human resources – labor force, skills, work ethic – that will be needed to re-fit and re-tool our economy. There are a number of programs offered within the city and region to assist with workforce training and education.

5 City Government. Barre City is business friendly — a great place to start and grow a business. City government actively supports downtown revitalization and economic development efforts, as demonstrated by our tax stabilization program and streamlined permitting process.

issues & challenges

Barre City has identified the following economic development challenges and issues that need to be addressed to achieve our vision for a healthy future:

1 Downtown Appearance. Barre City’s downtown buildings and spaces have suffered from neglect over many years. While this trend is reversing, issues remain with property maintenance and vacant storefronts. Existing ordinances are inadequate to address these problems, and city government has had difficulty working constructively with some downtown building owners to address these issues. Current regulations are also inadequate to ensure that any new development downtown will compliment and strengthen downtown’s traditional character and building patterns (multi-story buildings built to the sidewalk with large storefront windows on the first level).

2 Downtown Walkability and Parking. Barre City’s downtown is not as pedestrian and bicyclist friendly as it could be due to infrastructure problems, heavy traffic, dirt and trash, and perceived safety concerns. The North Main Street Reconstruction project has begun to address this issue, but the effort needs to be continued throughout downtown. There is currently an adequate amount of parking downtown, but it needs better management and signage, as well as improvements to make these areas a more attractive part of our downtown. As the number of people living, working, shopping and dining downtown increase, we will need to ensure that the availability of parking keeps pace with growing demand. A more pedestrian-friendly downtown will also encourage people to park and walk from place-to-place, rather than driving to and parking at each destination.

3 Building Stock. The city has a substantial amount of historic industrial space – primarily former granite sheds – that is obsolete, vacant, under-utilized, and/or poorly maintained. Many of these existing buildings will require substantial investment to be modernized, renovated and re-fitted to suitable for new uses and occupants. The city’s industrial spaces need to be redeveloped in a manner that will allow them to be easily adapted to a variety of uses as demand and economic conditions change over time. Industrial spaces need to be able to be easily subdivided for lease as small incubator spaces and be easily converted back to larger spaces as businesses expand or markets change. Spaces also need to be flexible in their use so that they can be efficiently converted from commercial to office or to light industrial and back as the market demands.

4 City Regulations. More work remains to be done to streamline regulations and reduce the cost/time of permitting projects. The city’s zoning map is too general and needs to be re-drawn more precisely to simplify administration of the regulations (ex. by largely following parcel lines, or by increasing the number of districts so the regulations can be tailored to the needs of specific locations rather than being generalized to cover a large area).

5 Unemployment and Workforce Development. Barre City continues to struggle with higher unemployment rates than the region as a whole. This is related both to the ongoing loss of jobs in the city’s industrial sector and to the composition of the city’s workforce. Our community has a sizeable portion of residents that are unprepared for or not competitive in the current job market including those without training in a specific career, young people with limited higher education or work experience, and parolees and furloughees that need to re-enter the workforce. These residents will need further training and/or education to find and keep stable employment that pays a living wage.

6 Educational Attainment. Only 18% of Barre City residents hold a Bachelor’s degree or higher as compared with 33% of Vermonters on average. People with more education are likely to live longer, healthier lives. Barre City needs to support educational attainment to improve the health and well-being of our economy and our residents.

7 Access to Healthy Food. Barre City does not currently have a full-size grocery store, although there are several small, neighborhood markets. This makes access to healthy foods difficult for residents, particularly those who do not have reliable transportation. Research has shown that individuals who live in environments where there are no nearby grocery stores and high concentrations of fast food alternatives have more health problems than those who live within close proximity to a grocery store. Keeping food growth, production, and sales within the city would also benefit our local economy. Every time money changes hands within a community, it boosts income and economic activity, and it fuels job creation within that community. A full-size grocery store would be an anchor business for downtown and would support our revitalization efforts.

8 Reputation and Perception. Barre City is often viewed from the outside as a run-down community in decline. This poor image is reinforced by the city’s poverty and crime rates, which appear high when compared to neighboring rural communities, and the numbers of parolees and furloughees, as well as homeless people, living in the city. The condition of some buildings and properties in the city also contributes to a poor impression of the community. These negative perceptions have eroded residents’ sense of community pride and over the years have become self-reinforcing. However, most of these negative perceptions of Barre City are based on an apples-to-oranges comparison. When we are compared to other urban areas in Vermont it is evident that conditions in Barre City are not unusual and that the city’s reputation is not deserved. We need to promote more positive messages about our community and counter the negative perceptions with factual information about current conditions in Barre City as compared to other urban centers in Vermont.

strengths & opportunities

Barre City has already acted to promote economic development, and there remain many strengths and opportunities we can build upon to continue those efforts as we strive to achieve our vision for a healthy future:

1 Taxes. Barre City does not tax business equipment, unlike many municipalities in the region. Barre City has local tax stabilization programs for both residential and non-residential properties being substantially improved by locking-in their lower pre-renovation assessments for up to 10 years. Barre City is the only community in the state with a local tax stabilization program that applies to both the municipal property tax and the education property tax. Additionally, within the state-recognized designated downtown, property owners may be eligible for state income tax credits for building improvements. Barre City applied for and received a tax increment financing (TIF) district in 2012, which will allow the city to capture the increased property tax revenues generated in a portion of our downtown over the next 20 years and to use those tax dollars to fund the improvements needed to support redevelopment.

2 Regulations and Permitting. Barre City has implemented a “while you wait” permitting system. The city has a zoning administrator available to assist applicants with navigating the regulatory and permitting system. Barre City created a Development Review Board (DRB) to eliminate the need for some projects to be reviewed by two separate boards; now projects that require more than one type of permit or approval can be reviewed in a combined hearing in front of a single board. Barre City has increased what development activities can be reviewed administratively by staff and be approved without requiring a DRB hearing. Since Barre City has zoning and subdivision regulations, it is classified as a “10-acre town” under Act 250 (Vermont’s state land use law). Therefore, development on most parcels within the city will not require state review and approval under Act 250.

3 Public Infrastructure and Services. Unlike most Vermont municipalities, Barre City has public water and sewer infrastructure, and both systems have capacity available. Three-phase electric service is available in many parts of the city, and is already serving most existing industrial sites. Cell phone service and broadband internet service are both available throughout the city. Route 62 is a limited access highway that provides a direct connection from downtown Barre City to Interstate 89. There are a number of industrial sites in Barre City that have direct rail access and freight traffic on the rail line has recently been re-established.

4 Support and Programs. Two economic development organizations with paid staff are available to assist existing and potential businesses – Barre Area Development Corporation (the local economic development organization) and the Barre Partnership (the downtown revitalization organization). Barre City has a state Designated Downtown, which provides benefits (including the tax credits mentioned above) to businesses and property owners within the district. Barre City and Barre Area Development administer economic development programs, funding and grants (such as federal CDBG and state brownfield clean-up and redevelopment funding). Barre City could seek state designation as a growth center, which could provide benefits to the city and landowners within the designated area in support of new growth and development. The city could also seek an expansion of its federally designated Historic District, which would make more property owners eligible for tax credits when they invest in rehabilitation of their buildings.

goals & strategies

Barre City has established the following economic development goals and strategies in order to achieve our vision for a healthy future:

1 For Barre City to establish and maintain a diversified and vibrant local economy, which provides jobs that can sustain the city’s residents, and which revitalizes and redevelops the city’s industrial sites, commercial areas and downtown business district.

- A. Invest in the public infrastructure and services needed to attract and retain businesses in the city.
 - A-1. Continue efforts to improve and beautify the city’s streetscapes, gateways and public spaces in order to provide the attractive and well-maintained physical environment needed to support successful businesses, particularly within the downtown business district.
 - A-2. Explore opportunities to increase wireless internet service throughout the downtown business district.
- B. Implement the city’s land use strategies as set forth in this plan, which identify and establish policies for the downtown business district, commercial zones, neighborhood commercial zones, industrial zones and mixed-use zones.
 - B-1. Implement this plan’s land use policies, which call for development of a dense, attractive, mixed-use downtown business district that particularly seeks to attract tenants from the business and professional services sector, and that provides “anchor” retailers such as grocery, hardware, pharmacy and clothing so city residents have convenient access to basic goods.
 - B-2. Build on Barre City’s heritage, historic resources and existing arts institutions to attract both residents and visitors downtown, particularly in the evenings and on weekends, which will expand the customer base for downtown retailers and restaurants.

- B-3. Adopt the ordinances needed to address issues with the appearance and maintenance of downtown storefronts and building facades, including vacant storefronts and buildings.
- B-4. Continue to plan for and construct the improvements needed to make Barre City's downtown more pedestrian friendly.
- B-5. Implement a clean streets policy in downtown Barre City to remove graffiti and to keep the streets and sidewalks free of dirt and litter.
- C. Recognize that a large percentage of land in the city suitable for commercial or industrial use is already developed but that much of this land has potential to be used more productively or intensively.
 - C-1. Identify sites suitable for higher-density, mixed-use redevelopment, and revise regulations as needed to facilitate such redevelopment.
 - C-2. Continue efforts to remediate and redevelop brownfield sites.
- D. Continue to assist building and businesses owners with navigating the city's permit process, and continue efforts to streamline city regulations and development review procedures.
- E. Retain and build on Barre City's heritage as a "blue collar" community that is affordable for working class families and offers a great quality of life.
 - E-1. Implement the goals and strategies set forth in other chapters of this plan intended to promote livable neighborhoods, affordable housing, and community services and amenities to attract and retain a skilled workforce in the city.
 - E-2. Foster a greater sense of civic pride among Barre City residents.
 - E-3. Improve Barre City's reputation and image.
- F. Find new uses and opportunities for, and promote investment in the city's vacant, obsolete or under-utilized buildings.
 - F-1. Encourage building owners to renovate and develop buildings with a flexible design that can be easily converted to new uses and to adapt to new economic conditions.
 - F-2. Increase awareness and use of the city's tax stabilization programs to facilitate investment in real property.

2 For Barre City to remain a regional employment center that provides livable wage jobs for a large percentage of the city's workforce and workers from surrounding communities.

- A. Continue efforts to revitalize Barre City's downtown business district.
- B. Link economic development goals and strategies to building a sustainable community so that today's decisions and actions will not diminish the opportunities for future generations to live healthy and successful lives in the city.
- C. Market the city as a place where people can live in close proximity to their place of work, and the economic, environmental and social benefits that a short commute has for individuals, families and the community.
- D. Identify and attract companies from outside the city that will complement our existing businesses, that will provide jobs that match the skills and training of the city's workforce, and/or that will revitalize and redevelop the city's industrial sites, commercial areas and downtown business district.

3 For Barre City and its economic development partners to support entrepreneurship as a primary mission.

- A. Recognize the critical role that small, local businesses play in creating new jobs in the city and in recirculating dollars in the local economy.
- B. Assist local entrepreneurs to open, successfully operate and growth their businesses.

- C. Use available revolving loan funds primarily to support local business start-ups and expansions.
- D. Continue to partner with and support the efforts of local economic development organizations.

4 For Barre City’s workforce to have the skills and training opportunities needed to remain competitive in a global marketplace, allowing residents to respond to changes in the local economy by transitioning between jobs and to remain employed throughout their working lives.

- A. Attract, retain and educate a skilled workforce that can successfully adapt to ongoing change in the local economy.
- B. Provide services and opportunities for unskilled or under-skilled residents.

next steps

Barre City should pursue the following actions in order to achieve our vision for a healthy future:

1 Implement the state-approved Tax Increment Financing (TIF) District for the downtown business district.

STATUS: The TIF plan and application was prepared and received state approval in 2012.

TIMING: 2013 with implementation continuing in subsequent years.

PARTNERS: City Planner, Planning Commission, City Manager, City Council

NOTES: The TIF District will provide a financing tool for the construction of two significant infrastructure projects (a downtown parking structure and the Merchant Row improvements) to stimulate the development and redevelopment of several properties in the Designated Downtown. These private projects require the city’s investment into parking, transportation, and streetscape in order for them to be built to full capacity.

2 Open a grocery store in Barre City.

STATUS: There is a recognized need for a grocery store, but to date no private operators have been interested in locating in Barre City and existing neighborhood stores have not been interested in expanding. A group of residents formed Granite City Grocery in 2012 with the intent of opening a cooperatively owned grocery store in Barre City. They are currently seeking to build a sufficient base of members to move forward with their plans. More information is online at www.granitecitygrocery.coop.

TIMING: 2014

PARTNERS: Granite City Grocery

NOTES: Another option to improve residents’ access to healthy food is for the city to work with the Department of Health District Office to establish a Healthy Retailer project in Barre City. This program is designed to foster collaboration with independent local convenience store owners in order to help consumers make healthier choices. Actions may include installing signage or changing product placement to make healthier options easier to find or increasing the number of healthy offerings available. In addition to improving nutrition, this initiative aims to influence norms around alcohol and tobacco use by reducing the number of advertisements in stores. More information is online at <http://healthvermont.gov/family/fit/target.aspx#Retailers>.

3 Complete planning for and implement the Merchant Row project.

STATUS: A plan for Merchants Row was completed in 2011.

TIMING: Construction commencing in 2014 for Enterprise Aly and 2015 for remainder of Merchants Row.

PARTNERS: City Planner, Planning Commission, City Manager, City Council, CVRPC

NOTES: The Merchants Row plan resolves a number of circulation issues associated with the Merchants Row/Enterprise Aly area of Barre and would transform this bleak area of undifferentiated asphalt to a re-configured urban landscape that includes sidewalks, ADA accessible entrances to Merchants Row shops, public plazas at the Barre Opera House and historic train depot, an alignment for a long planned bike path, designated loading areas and landscaping.

4 Complete planning for and implement the North Main to Summer Street project.

STATUS: A plan for North Main to Summer Street was completed in 2012.

TIMING: 2017

PARTNERS: City Planner, Planning Commission, City Manager, City Council

NOTES: The plan's overall strategy is to focus development and activity along Main and Summer Streets, and provide parking within the center of the blocks in a series of connected 'parking courts' that are configured to be user-friendly and convenient, but tied to an urban pattern that places parking behind the buildings and preserves streetscapes for walking and human activity.

benchmarks

Barre City should measure progress towards achieving our vision for a healthy future against the following benchmarks:

1 Per capita income in Barre City. Per capita income (total income ÷ total number of residents) measures our city's economic health and it is an important indicator of our community's standard of living. For individual residents, income is one of the strongest predictors of health and well-being. *Source: U.S. Census Bureau, American Community Survey*

In 2010: \$20,700
Target for 2020: \$28,000

2 Unemployment rate for Barre City residents. The unemployment rate is another direct measure of city's economic health. A high unemployment rate as compared to state and regional averages suggests that there are problems specific to the community that are affecting the local economy. Employment is the primary source of income for most Barre City residents and for individuals and families unemployment can lead to increased rates of physical and mental illness. *Source: Vermont Department of Labor, Local Area Unemployment Statistics*

In 2010: 11.1%
Target for 2020: 5.0%

3 Total number of jobs in Barre City. Whether the number of jobs in a city is growing, stable or declining, particularly as compared to regional employment trends, is also an indicator of economic health and vibrancy. Barre City was historically dependent upon a single industry, which resulted in a long period of economic decline and stagnation as jobs in granite manufacturing disappeared. An increase in jobs in a diversity of sectors will be evidence that we are building a healthier and more resilient local economy. *Source: Vermont Department of Labor, Labor Market Information*

In 2010: 4,400
Target for 2020: 5,500

4 Jobs per Barre City resident in the workforce. The ratio of jobs to the number of residents in the workforce is

an indicator of whether city residents will be able to find employment locally, and whether people with jobs in the city will be able to find housing locally. An imbalance in either direction suggests a problem that could affect the health and well-being of our economy. Historically, most of the people who worked in Barre City also lived here. A reversal of the recent trend of residents having to look for employment outside the city will be evidence of economic revitalization. *Source: Vermont Department of Labor, Labor Market Information and Local Area Unemployment Statistics*

In 2010: 0.89
Target for 2020: 1.0

5 Average commute for Barre City residents. The number of jobs in the city could increase, but ideally we want those many of those jobs to be held by Barre City residents. The length of the average commute measures how far city residents are traveling to work. Shorter commutes decrease vehicle-generated pollution, and increase time available for family and social interaction – all of which will benefit the health and well-being of residents and the community as whole. *Source: U.S. Census Bureau, American Community Survey*

In 2010: 20 min
Target for 2020: 18 min

6 Vacancy rate for first floor commercial space in the downtown business district. Vacant downtown buildings are highly visible evidence of the poor health of a local economy. Barre City's downtown has endured a long period of neglect and dis-investment that appears to be reversing. Declining vacancy rates is a direct measure of the success of our revitalization efforts, and the health and well-being of our community. *Source: Barre Partnership*

In 2010: 15%
Target for 2020: 5%

planning for housing

Barre City recognizes that safe, attractive and affordable homes and neighborhoods are a necessary foundation for the health and well-being of residents and neighborhoods. To achieve our vision for a healthy future, Barre City needs to attract and retain residents, particularly households with moderate to higher incomes. The quality, cost and characteristics of homes and neighborhoods are the major factors people consider when choosing where to live.

Where we live is at the very core of our daily lives. Shelter is a basic human need without which no one can be healthy, safe or productive. The physical conditions within homes, conditions in the neighborhoods surrounding homes, the affordability of homes are all closely interrelated with the health and well-being of residents and our community as a whole.

The health of our local economy is linked to the availability and affordability of housing in the city. To attract jobs, we need to have places for new workers to live. To revitalize our downtown, we need to attract new residents and expand the base of consumers that will support local businesses. The residential sector also drives demand for city infrastructure and services; the location and design of homes and neighborhoods influence the cost of providing infrastructure and services in the city.

The type of residential development that occurs in a community reflects both local and regional market forces, as well as the influence of government policies and regulations. The city can take an active role in promoting housing that will contribute to making Barre City a healthier place to live. Policies that encourage higher-density housing within urban centers increase residents' ability to walk or bike to work, school, stores and services. Enforcing building codes and inspecting rental housing reduces the number of residents living in unhealthy and unsafe conditions.

key points

1 Changing Demographics. Demographic trends suggest that there will be increasing numbers of single-person households and households without children in future decades. Many of these households will want a home: in a more urban setting with greater access to employment, services, shopping and social activities; that is smaller, less expensive, easier to maintain and more energy-efficient; and with convenient access to transit. In future years, we will need more housing in Barre City that can meet those housing needs. Many people who grew up in Barre City or lived in the city as young adults moved out to nearby rural communities to raise their families. Now 'empty-nesters', these residents could be attracted back to the city with the right mix of housing in a revitalized downtown setting.

2 Downtown Housing. Downtown Barre City currently has very little housing aside from a few senior and affordable housing facilities. To revitalize our downtown, we need to bring people back to shop, dine, work and live downtown. Adding housing would increase the income generated by downtown buildings, property values and the city's tax base. Residents would be 'anchor consumers' for downtown businesses and would keep downtown alive after business hours. The Vermont Downtown Program reports that the average downtown resident spends more than twice as much money at downtown businesses than the average person who works, but does not live, downtown. With limited opportunities for new single-family development and infill in established neighborhoods in Barre City, our downtown offers the best opportunity for substantial increases in the city's housing stock.

3 Affordable and Special Needs Housing. Barre City’s housing stock includes a large number of modest, single-family homes that continue to offer some of the region’s most affordable opportunities for homeownership. As more affluent residents left for outlying rural communities, our stock of higher-end and larger homes was largely converted to multi-family rentals. The availability of centrally located land with access to public services led to several large subsidized housing developments being built in Barre City during the 1970s and ‘80s. As a result of all these factors, we presently provide more than our share of the region’s affordable and special needs housing. Forty-one percent of all the subsidized apartments in Washington County are located in Barre City (approximately 500 units) and the subsidized units account for 12% of all housing in the city (the 5th highest percentage of all Vermont municipalities).

4 Moderate- and Upper-Income Housing. Barre City has seen the supply of moderate- and upper-income housing decline in recent decades. This widening gap in our housing stock has weakened the city’s property tax base and resulted in a loss to the local economy. The result is reduced resources for city services and infrastructure, including the investments that are needed to make Barre City a desirable place to live. We want our city to remain an affordable and attractive community for those working in the region - a city that is home to a diverse population. In order to achieve this, we need to balance our housing stock by adding middle- and higher-end units, and ensuring that the quality of existing homes is maintained or improved.

5 Housing Quality and Neighborhood Stability. More than half of Barre City’s homes were built before 1940 and are located in traditional, pre-war neighborhoods. These older homes and neighborhoods need ongoing improvement and maintenance if they are to remain healthy and desirable places to live. The national upheaval in the housing market after 2008 has led to higher rates of foreclosure and distressed residential properties being purchased by investors (often from other parts of the country). So while there are many stable neighborhoods in Barre City, there is evidence that some of our neighborhoods are in transition away from homeownership towards rentals, and a few are showing signs of decline as a result of that transition. Poor property management leads to the loss of neighborhood stability, which is more likely to occur if landlords with no connection to our community acquire a higher percentage of rental properties. Investment in the city’s homes and neighborhoods will have significant direct and indirect benefits to individual residents and families, and the community as a whole.

issues & challenges

Barre City has identified the following housing challenges and issues that need to be addressed to achieve our vision for a healthy future:

1 Neighborhood Destabilization. There is anecdotal evidence that some of Barre City’s neighborhoods are experiencing destabilization. Our city’s distressed neighborhoods have higher percentage of rental properties owned by absentee landlords, a higher percentage of properties that are neglected or not properly maintained, and a higher rate of tenant turnover. These factors can become self-reinforcing within a neighborhood and can lead to a downward spiral in property values and quality of life. More than half of the homes in the city are rented rather than owned and rental housing is not evenly distributed. There are blocks that are predominately owner-occupied and those that are mostly renter-occupied. Each year approximately one-third of renters in the city move. The low rate of homeownership and the increasing rate of resident turnover in some neighborhoods is fraying our city’s social fabric.

2 Housing Quality. The perception that some of Barre City’s neighborhoods are in decline is largely driven by the condition and maintenance of homes. The most affordable housing tends to be in the neighborhoods closest to downtown, which are among the oldest in the city. These homes are most likely to need upgrades to make them more energy efficient or to remove hazards like lead-based paint. While buyers may be able to purchase a house in Barre City, they may not have the additional resources necessary to repair or maintain their home, particularly if it is an older structure with a backlog of deferred maintenance. Rents in Barre City are largely driven by the HUD Fair Market rates and many landlords believe that at those rental rates there would not be an adequate return on their investment if they made significant improvements. Additionally, landlords who receive fixed rents through state or federal programs have little incentive to make improvements beyond what is needed to meet minimum standards. Buildings that are allowed to deteriorate decline in value, depress the value of surrounding properties, and generally make a neighborhood less desirable. More than half of the homes in Barre City were built before 1940 and most of the city’s housing is located in established neighborhoods that formed 50 or more years ago. Our older housing stock needs regular repair and upgrades to provide residents with a safe and healthy place to live and contribute to neighborhood quality of life.

3 Demand for City Services. The amount of rental housing, and housing for very low-income households or populations with special needs in Barre City has increased demand for city services, particularly police and emergency response. The cost of providing these city services is borne primarily by property taxpayers, many of whom perceive that those who pay higher city taxes tend to use less services, while those who pay lower city taxes use more services. A balanced housing stock is essential to ensure our tax base is adequate to support the provision of city services necessary to maintain a healthy community with a good quality of life.

strengths & opportunities

Barre City and its partners have already acted to address housing issues, and there remain many strengths and opportunities we can build upon to continue those efforts as we strive to achieve our vision for a healthy future:

1 Support and Programs. The city and several partner organizations are available to assist current or potential residents with a variety of housing issues in Barre City. The Central Vermont Community Land Trust (CVCLT) operates a NeighborWorks HomeOwnership Center in Barre City and administers a variety of programs for homebuyers from education to grants for income-eligible households. CVCLT also offers assistance with home improvements to income-eligible households. Barre Housing Authority, Washington County Mental Health, Central Vermont Community Action Council (CVCAC), the Good Samaritan Haven, and others also provide housing-related support and programs in the city. (A more complete list of programs and services is included on page 3-8 of this plan.)

2 Affordable Housing. Barre City is an affordable community to purchase or rent a home. Much of the city’s historic housing stock is composed of modest, single-family homes on small lots – what would now be described as workforce housing – and these homes provide some of the best opportunities for first-time homebuyers and affordable homeownership in the region. The median sale price of a primary home in Barre City has been at least \$30,000 lower than the county average and \$50,000 lower than the state average throughout the past decade. Rents are also affordable and there is an ample supply of rental housing. Our city is a very affordable place for younger people to get started in and older people to downsize and retire to

3 Rental Registration Inspection Programs. Barre City has adopted an ordinance that requires annual registration of all rental units and establishes minimum standards for rental housing. Barre City has operated a rental housing inspection program since 2004 to maintain a minimum housing quality level. In 2012, the Barre City Fire Department took over responsibility for the inspection program from the Building Department in order to increase staff capacity for this program. It is hoped that greater staffing for the program will allow the city to inspect each rental unit every three years and better respond to complaints.

4 Taxes. Barre City has local tax stabilization programs for residential properties being substantially improved by locking-in their lower pre-renovation assessments for up to 10 years. Barre City is the only community in the state with a local tax stabilization program that applies to both the municipal property tax and the education property tax. Additionally, within the state-recognized designated downtown, property owners may be eligible for state income tax credits for building improvements.

5 Public Infrastructure and Services. Barre City has public water and sewer infrastructure, and both systems have capacity available. Cell phone service and broadband internet service are both available throughout the city. The city’s parking permit system allows for overnight parking for downtown residents in city-owned lots, although the number of spaces designated for overnight or long-term parking may need to be increased as the amount of downtown housing increases. The lack of dedicated parking for some downtown buildings may be a disincentive for increasing the number of upper floor apartments.

6 Regulations and Permitting. It is possible to build housing in Barre City at much higher densities than in most Vermont communities and there remains land suitable for new construction and infill development. Barre City has implemented a “while you wait” permitting system. The city has a zoning administrator available to assist applicants with navigating the regulatory and permitting system. Barre City created a Development Review Board (DRB) to eliminate the need for some projects to be reviewed by two separate boards; now projects that require more than one type of permit or approval can be reviewed in a combined hearing in front of a single board. Barre City has increased what development activities can be reviewed administratively by staff and be approved without requiring a DRB hearing. Since Barre City has zoning and subdivision regulations, it is classified as a “10-acre town” under Act 250 (Vermont’s state land use law). Therefore, development on most parcels within the city will not require state review and approval under Act 250.

goals & strategies

Barre City has established the following housing goals and strategies in order to achieve our vision for a healthy future:

1 For Barre City to encourage new residential development as part of an effort to reverse recent declines in the city’s population and further the state’s planning goal of maintaining the historic settlement pattern of compact village and urban centers separated by rural countryside.

- A. Plan to accommodate a majority of the city’s new housing downtown.
- A-1. Promote new mixed-use development and rehabilitation of existing buildings that includes residences on the upper floors.
- B. Allow for mixed-use redevelopment of existing commercial and industrial buildings, particularly projects that preserve historic downtown buildings and granite sheds.
- C. Allow creation of accessory dwellings within existing homes or outbuildings as required by state law.
- D. Continue to support CVCLT’s Summer Street Project.

2 For Barre City to promote investment in new residential construction, and in the maintenance and rehabilitation of the city’s existing housing stock.

- A. Provide a user-friendly environment that encourages residential developers to invest and construct within the city.
- A-1. Work in partnership with landowners and developers to overcome hurdles, such as the ownership of ‘paper streets’ or the need for infrastructure upgrades, that are preventing infill development on vacant lots in the city.
- B. Encourage the maintenance of the city’s existing housing stock and the rehabilitation of deteriorating or substandard housing.

- B-1. Continue efforts to improve the quality of rental housing in the city and to ensure that residents do not live in substandard, unsafe or unhealthy conditions by maintaining our rental registration and inspection programs, and strengthening our rental housing codes and ordinances.
- B-2. Continue to offer municipal tax stabilization for major improvements to residential property and increase public awareness of this program.
- B-3. Support efforts and programs to improve the energy efficiency of homes in Barre City, particularly those focused on upgrades to rental and affordable housing.
- C. Recognize that the city has a finite amount of open land suitable for residential development and encourage well-planned development that makes efficient use of this limited resource.

3 For Barre City to stabilize, protect and enhance the character of residential neighborhoods and the quality of life they provide for residents.

- A. Ensure that infill development within existing neighborhoods will be harmonious with the scale, density and character of nearby homes.
 - A-1. Modify zoning district standards to accommodate infill development at a density and intensity that is compatible with existing or planned development patterns.
- B. Manage the conversion of single-family homes to multi-family or non-residential uses in order to minimize impacts on neighborhood character and quality of life.
 - B-1. Establish density standards within existing neighborhoods that reflect the traditional development patterns of New England urban centers.
- C. Provide opportunities for small-scale, neighborhood-oriented shops and services within walking distance of most of the city's residential areas.
- D. Spur private investment in the preservation, renewal and renovation of homes and neighborhoods to avoid potential decline.
 - D-1. Monitor vacancies, rental inspection results and property maintenance/building code enforcement actions to direct revitalization efforts towards struggling neighborhoods.

4 For Barre City to have a more balanced and diverse housing stock, while remaining a community where working people can afford to buy or rent a home.

- A. Maintain Barre City's role as community where residents working in the city and region can afford to buy or rent a home.
 - A-1. Encourage preservation of the city's existing supply of 'starter homes' and new home construction to serve the first-time homebuyer market.
 - A-2. Promote programs and strategies that provide assistance with housing costs for low- and moderate-income households.
 - A-3. Promote programs and strategies that help control rising housing costs.
- B. Maintain a rate of homeownership in Barre City that results in at least 50% of properties in each neighborhood being owner-occupied.
 - B-1. Promote programs and strategies that provide assistance to current renters who are capable of and interested in buying a home.
 - B-2. Promote programs and strategies to encourage owner-occupied rental properties.
- C. Promote residential development that responds to the needs of people across all the city's economic and social groups.
 - C-1. Expand the housing choices available to buyers in Barre City to include options other than single-family detached homes (townhouses, row houses, condominium units in mixed-use buildings, etc.).
 - C-2. Allow for and encourage development of alternatives to fee-simple home ownership and for-profit rentals

such as community land trusts, limited-equity condominiums and cooperatives.

- C-3. Include housing units at a variety of price points within new residential developments and downtown mixed-use buildings.
- C-4. Facilitate the integration of households with various incomes into all neighborhoods and the dispersal of affordable housing throughout the city.
- D. Maintain an adequate supply of housing that can provide those with limited means, disabilities or other special needs a safe, stable and healthy place to live.
 - D-1. Offer residents an opportunity to live in economically and socially diverse neighborhoods.
 - D-2. Distribute housing targeted to a particular population group (elderly housing, subsidized housing, group homes, etc.) among the city's neighborhoods and avoid clustering such housing within any single neighborhood.
 - D-3. Encourage a more balanced distribution of affordable and special needs housing among Central Vermont municipalities.
 - D-4. Balance any loss of affordable housing due to downtown redevelopment and revitalization projects with creation of equivalent affordable units within new buildings and/or distributed around the city.

next steps

Barre City should pursue the following actions in order to achieve our vision for a healthy future:

- 1 Amend the city's rental housing ordinance to require that absentee landlords engage a local property manager.
 - STATUS:** No action taken to date.
 - TIMING:** 2013
 - PARTNERS:** City Planner, City Fire Department, City Attorney, City Council
 - NOTES:** Barre City has a rental housing ordinance (Minimum Housing Ordinance) that could be amended to improve the city's ability to enforce minimum housing standards by requiring non-resident landlords to hire a local property manager and to ensure that the city has the information needed to contact the landlord or property manager when necessary.
- 2 Undertake a study to document the occupancy of downtown buildings and recommend strategies to encourage use of upper floors for housing.
 - STATUS:** No action taken to date.
 - TIMING:** 2014
 - PARTNERS:** Barre Partnership, City Assessment Department, City Planner, Planning Commission
 - NOTES:** This study should include an inventory and assessment of the condition, use and occupancy of the upper floors of buildings in the downtown business district. Based on the findings, recommendations should be developed to increase the utilization of upper floor space for housing.
- 3 Implement a pilot program that would assist with the purchase and management of owner-occupied rental properties in the city.
 - STATUS:** No action taken to date.
 - TIMING:** 2015
 - PARTNERS:** CVCLT

NOTES: CVCLT has indicated an interest in partnering with the city on a program that would help buyers purchase and manage owner-occupied rental properties. A new source of funding would need to be found to support the program as it would not be eligible under CVCLT's current funding streams.

4 Amend the city's Minimum Housing Code to incorporate stronger and more effective standards.
STATUS: No action taken to date.

TIMING: 2015

PARTNERS: City Planner, City Fire Department, Vermont Department of Health, CVCLT, City Attorney, City Council

NOTES: Barre City has a Minimum Housing Ordinance that could be amended to strengthen the city's minimum housing standards. The current code is based on the HUD minimum standards and is difficult to enforce. Consideration should be given to incorporating additional standards related to energy-efficiency and healthy living conditions. The Vermont Healthy Homes Program has produced a rating tool and reference manual that should be consulted, and Burlington's housing code could be used as a model.

5 Continue to support CVCLT in developing housing on Summer Street.

STATUS: The properties have been purchased and plans are being prepared for submission to grant agencies.

TIMING: 2014-2016

PARTNERS: City Planner, City Manager, CVCLT

NOTES: The city has worked with CVCLT since 2013 to plan for the removal of the substandard units at 20 Summer Street to be replaced with new units and a new office for CVCLT. This project is advancing and should be complete by 2016.

6 Encourage home-sharing as a means of keeping larger single-family homes intact.
STATUS: No action to date.

TIMING: 2016

PARTNERS: City Planner, CVCLT

NOTES: Encouraging home-sharing is one way to avoid conversion of larger homes to rental or multi-family units and would provide additional benefit of helping residents afford and invest in the older housing stock that was at one time prime single-family housing. Rental units within the neighborhoods have begun to depreciate neighboring homes and neighborhoods making them less desirable.

benchmarks

Barre City should measure progress towards achieving our vision for a healthy future against the following benchmarks:

1 **Percentage of Barre City households spending more than 30% of their income on housing.** Households that spend too much of their income on housing often find themselves unable to afford other necessities such as food, health care, transportation, child care, and clothing. The generally accepted rule of thumb is that housing expenses (including utilities and taxes) should constitute no more than 30% of household income. *Source: US Census Bureau, American Community Survey*

In 2010: 44%

Target for 2020: 30%

2 **Percentage of Barre City residents who moved during the prior year.** Households that move frequently can experience a loss of supportive social relationships, as well as the household disruption and increased stress resulting from the time, energy and expense required to find and move into a new place. Frequent moves are particularly disruptive for children and have been associated with poor educational outcomes, social/behavioral problems and increased lifetime risk for mental health problems. *Source: US Census Bureau, American Community Survey*

In 2010: 23%
Target for 2020: 20%

3 **Home ownership rate in Barre City.** Home ownership provides many benefits including tax benefits, collateral for financial emergencies, and opportunities for wealth creation. Home ownership is associated with increased residential stability and creates incentives for personal investment in home maintenance, neighborhood improvement, and community involvement. *Source: US Census Bureau, Decennial Census*

In 2010: 43%
Target for 2020: 50%

4 **Percentage of rental housing in Barre City that is owner-occupied.** Owner-occupied rental properties are less likely to have tenants that are disruptive to the neighborhood (noisy, disorderly conduct, criminal activity, trash accumulation) because the landlord lives nearby and will likely not want to live next to a bad neighbor. Owner-occupied rental properties can make home ownership more affordable both through the direct rental income and through various tax benefits. *Source: Barre City Grand List*

In 2010: 20%
Target for 2020: 30%

5 **Number of census block groups in Barre City with a household poverty rate of 30% or more.** People living in neighborhoods with concentrated poverty have poorer health outcomes, and experience increased crime rates and reduced social cohesion, irrespective of their personal income. Neighborhoods with concentrated poverty also place higher demands on municipal services while contributing fewer tax dollars. *Source: US Census Bureau, American Community Survey*

In 2010: 3
Target for 2020: 0

6 **Percentage of rental units in Barre City inspected and brought up to code each year.** Homes that are poorly designed, constructed or maintained can make residents sick. Homes with inadequate heating or ventilation can lead to the growth of mold and dust mites, resulting in asthma and respiratory allergies. Older homes may have lead-based paint that can cause lead poisoning, particularly in young children. The likelihood of physical hazards in a home is related to housing affordability. *Source: Barre City Fire Department*

In 2010: unknown
Target for 2020: 33%

7 **Total number of occupied housing units in Barre City.** A growing number of occupied housing units is an indicator of overall community health. People move in or out a community because of factors like employment, the cost of living and availability of housing, and the quality of life and local schools. When a community is growing, it suggests these factors are trending in the right direction. *Source: US Census Bureau, Decennial Census*

In 2010: 4,500
Target for 2020: 4,800

TRANSPORTATION

planning for the transportation system

Barre City recognizes that the city's transportation system contributes significantly to economic vitality and community well-being. To achieve our vision for a healthy future, Barre City needs a transportation system that enables all residents to conveniently and safely travel around the community, accessing homes, jobs, schools, parks, shopping and services.

The transportation system directly affects health through traffic accidents, air pollution, and reduced physical activity. It also has indirect impacts on health as a result of economic factors such as access to employment opportunities, transportation costs, and the vitality of the local economy. Not only does the transportation system provide for the mobility of people and goods, it also influences patterns of growth and economic activity by providing access to land.

Barre City's transportation system is more than just roads. It includes:

- Sidewalks and paths traveled by pedestrians and bicyclists;

- Public transit;

- The rail line; and

- The connections between these modes of transport within the city and to transportation systems in the larger region.

Barre City has more potential for - and need for - effective and efficient transportation alternatives than most Vermont communities due to our relatively high density, compact development pattern and large percentage of residents who do not drive or own a vehicle.

key points

1 Downtown Traffic. 17,000 vehicles per day travel on North Main Street, a large percentage of which is through traffic. Traffic creates both a significant challenge and potential opportunity for downtown revitalization efforts. The recently completed North Main Street Reconstruction Project has improved both traffic flow and the appearance of the downtown streetscape. The project has mitigated some of the negative impacts of heavy traffic and created a more pedestrian-friendly downtown. This effort needs to be continued with the planned Merchants Row and the North Main to Summer Street projects.

2 Downtown Parking. The city is the principal provider of downtown parking with more than 500 parking spaces in several municipal lots in addition to on-street parking. Generally, Barre City has an ample supply of public parking, but improvements are needed to increase the quantity and quality of accessible parking spaces, to provide safe pedestrian access within parking lots, to maximize use of and direct drivers to available parking, and to make parking areas a more attractive part of our downtown. As the number of people living, working, shopping and dining downtown increases, we will need to ensure that the availability of parking keeps pace with growing demand. A more pedestrian-friendly downtown will also encourage people to park and walk from place-to-place, rather than driving to and parking at each destination.

3 Pedestrians and Bicyclists. There is demand for an improved sidewalk/path network in Barre City for pedestrians and bicyclists. Sidewalks and paths provide opportunities for exercise and a healthy, low-cost transportation alternative for those who cannot or choose not to drive. There are numerous challenges to be overcome to construct sidewalks and paths including obtaining rights-of-way and securing funding. The city struggles to pay for the maintenance of existing sidewalks and paths, raising concerns about whether we should build more sidewalks and paths.

4 Public Transit. Barre City has a large transit-dependent population – people who do not/cannot drive or do not own a vehicle – and many households that are burdened by increasing transportation costs. While GMTA does provide public transit service in the city, a more robust public transit system is needed to fully meet the transportation needs of our residents. Improvements to the current public transit system could encourage more people to choose transit over driving to destinations within the city and region, thus reducing traffic and parking congestion. Expanding the number of people living or working downtown will expand the base of potential public transit riders, which should help support improved service in Barre City.

5 Road Maintenance Costs. Road maintenance costs consume a significant portion of the city’s budget. Road maintenance costs will rise with energy costs due to dependence on petroleum products (asphalt, vehicle fuel, etc.) making the challenge of keeping up with road maintenance needs more difficult for the city over time.

issues & challenges

Barre City has identified the following transportation challenges and issues that need to be addressed to achieve our vision for a healthy future:

1 Facilities for Pedestrians and Bicyclists. Barre City residents regularly identify improved walking and biking routes within the city and to neighboring communities as an important goal. However, given the city’s limited resources and other priorities, it continues to be a challenge to focus on this issue. The Semprebon bequest renewed efforts to complete the multi-use path between Barre City and Barre Town. If that project is successfully completed, it may spur further efforts to make the city a more walkable and bikeable place.

2 Public Transit. There is a recognized need to expand public transit service within the city, but additional city funding would likely be needed to improve public transit service. City residents and workers are currently limited in their transportation choices by public transit service location and frequency, and commuting destinations and distances. Through changes in land use, urban design, street design, and public transit services, our city can improve the viability of public transit service while also becoming more walkable and bikeable. Improving our public transit service would particularly benefit lower-income residents who are more heavily burdened by transportation costs and could expand their access to employment opportunities.

3 Aging Infrastructure. The City of Barre, like municipalities around the state and country, faces the challenge of aging infrastructure. With declining federal and state dollars available, the city will have to finance a larger share of the upgrade, replacement and repair costs. The cost-per-mile of repaving, other road repairs and regular road maintenance are significantly affected by rising energy costs. Unlike many communities, Barre City has recognized the need to address the issue of aging infrastructure. For more than two decades, the city has been engaged in an on-going street reconstruction program. The challenge in future years will be finding the funding needed to keep that program going at the level needed to keep the city’s transportation infrastructure in adequate condition.

strengths & opportunities

Barre City has already acted to address transportation issues, and there remain many strengths and opportunities we can build upon to continue those efforts as we strive to achieve our vision for a healthy future:

- 1 **Proximity and Quality of Interstate Access.** Route 62, a five-mile long, four-lane, limited-access state highway, provides a direct link between downtown Barre City and Interstate 89 at Exit 7.
 - 2 **Highways.** Routes 14 and 302 bring many travelers into Barre City and bring many potential customers into our downtown. Traveling between downtown Barre City and Montpelier via Route 302 is a 15-minute trip, which is made by more than 10,000 vehicles per day.
 - 3 **Traffic.** While there is considerable traffic on North Main Street, downtown Barre City is less congested than most urban areas in Vermont. Vehicles flow with limited delay into and out of the city. Recent transportation studies have determined that none of our intersections will fail to meet level of service standards, even after City Place is constructed and several hundred more people are working downtown. Except for the intersection in front of the library (Route 302, Route 14 and Elm Street), all other intersections in the city have a level of service of C or better, which is outstanding for an urban area.
 - 4 **Public Parking.** There are more than 500 public parking spaces available downtown. The availability of public parking has allowed the city to eliminate on-site parking requirements for downtown businesses. The city is currently planning for a parking structure that would add several hundred additional parking spaces in conjunction with redevelopment projects that will be increasing the number of people working downtown.
 - 5 **Rail.** With rising fuel costs, the ability to ship and receive freight via rail is again becoming a competitive advantage and a factor that businesses will consider when selecting where to locate. Many of Barre City's industrial areas have direct rail access.
 - 6 **Airport.** Downtown Barre City is four miles from a regional airport, the Edward F. Knapp State Airport just across the city line in Berlin.
-

goals & strategies

Barre City has established the following transportation goals and strategies in order to achieve our vision for a healthy future:

- 1 For Barre City to optimize and maintain its transportation infrastructure as needed to support economic vitality and quality of life in the city.
 - A. Invest in improvements to transportation infrastructure needed to attract and retain businesses in the city.
 - B. Improve the appearance and function of existing arterial roads in the city.
- 2 For Barre City to accommodate future transportation needs primarily by improving the quality and use of existing infrastructure rather than by building additional infrastructure.
 - A. Optimize existing traffic configurations and traffic lighting to provide for the efficient movement of existing and future vehicular traffic.
 - B. Promote and improve safe vehicular access with new development and redevelopment.
 - C. Incorporate Complete Street elements such as sidewalks, crosswalks and curb ramps into street reconstruction and repair projects.
- 3 For Barre City residents and workers to have viable alternatives to driving a personal vehicle to destinations within the city and region.
 - A. Maintain current public transit service, and expand that service as warranted by demand and as can be sustained financially.

- B. Maintain and improve the city’s sidewalk network so more city residents can safely walk from their homes to jobs, schools, parks, shopping and services.
- C. Complete construction of the planned bike path through the city.

4 For Barre City to provide a pedestrian- and bicyclist-friendly environment.

- A. Maintain and construct new sidewalks that serve areas of existing or anticipated high volumes of pedestrian use.
- B. Maintain neighborhood sidewalks within the financial constraints approved by the city voters.
- C. Make improvements when streets are being repainted, repaired or reconstructed to better accommodate safe walking and biking throughout the city (ex. narrowing travel lanes/widening shoulders, bike lanes, sharrows, sidewalks, cross-walks, curb ramps, traffic calming, signage, etc.).
- D. Improve the connectivity of existing walking and biking routes.

next steps

Barre City should pursue the following actions in order to achieve our vision for a healthy future:

1 Develop and adopt a Complete Streets policy.

STATUS: No action has been taken to date.

TIMING: 2013

PARTNERS: City Planner, Planning Commission, City Engineer, Transportation Advisory Committee, City Council

NOTES: The website of the National Complete Streets Coalition provides information about developing a local Complete Streets policy and links to policies adopted by municipalities around the country. In Vermont, Montpelier and Burlington are currently in the process of developing Complete Streets policies.

2 Investigate demand for and establish additional scheduled stops as needed along the City Route, City Commuter and Hospital Hill bus routes.

STATUS: No action has been taken to date.

TIMING: Begin discussions with GMTA in 2013 with desired stops being identified and added in subsequent years.

PARTNERS: City Planner, Planning Commission, City Engineer, Transportation Advisory Committee, City Council, GMTA

NOTES: Based on input received during development of this City Plan, potential locations that should be explored include: the city-owned parking lot at the intersection of Hill Street and South Main Street; along Washington Street in the vicinity of Patterson Street; and on North Main Street in the vicinity of North Barre Manor. Opportunities to provide bus service to the high school should also be explored, which could reduce downtown traffic generated by students driving or being driven to/from school.

3 Encourage and support Barre City Elementary and Middle School’s involvement in the Safe Routes to School program.

STATUS: No action has been taken to date.

TIMING: BEMS should enroll by 2014 with ongoing activities and improvements in subsequent years.

PARTNERS: BCEMS, City Planning Commission, City Planner, City Engineer, City Council

NOTES: This state/federal program helps to generate enthusiasm around biking/walking to school and can provide financial resources to improve city infrastructure. More information is available online at <http://saferoutes.vermont.gov>.

4 Identify and take appropriate action with regard to paper streets, particularly those that are limiting the use and development of otherwise suitable lots.

STATUS: No action has been taken to date.

TIMING: 2014

PARTNERS: City Planner, City Engineer, City Attorney, City Council

NOTES: Paper streets are strips of land that were designated for use as a street when a subdivision was initially laid out, but the street was never constructed as planned. The ownership of some of these strips has become uncertain over time. This limits the ability of adjoining land to be developed because the city cannot grant the right to install a street or infrastructure on the strip of land (as originally intended) without the approval of the owner. The city would need to identify the owners of paper streets or institute a legal process to municipal ownership of these strips if no owner can be determined to facilitate development of the adjoining land.

5 Develop and adopt road standards.

STATUS: The city has a set of road standards, but they have not been formally adopted.

TIMING: 2014

PARTNERS: City Engineer, City Planner, Transportation Advisory Committee, City Council

NOTES: Having an adopted set of road standards would enable the city to qualify for transportation grants. The existing set of road standards should be reviewed to assure that new roads will be accessible to emergency vehicles and that they will incorporate appropriate stormwater infrastructure before being formally adopted.

6 Complete a citywide Pedestrian Environment Quality Index (PEQI) and Complete Streets assessment.

STATUS: No action has been taken to date.

TIMING: 2015

PARTNERS: City Planner, Planning Commission, City Engineer, Transportation Advisory Committee, City Council

NOTES: More information about conducting a PEQI assessment is available from the UCLA Center for Occupational and Environmental Health at www.peqiwalkability.appspot.com. There are a number of Complete Streets assessment tools available and examples of assessments completed in communities around the country. Trained volunteers can conduct these assessments, which examine both the physical infrastructure available to pedestrians and whether the overall environment is safe and pedestrian-friendly. .

7 Review access management provisions in the city's land use regulations and update as needed.

STATUS: No action has been taken to date.

TIMING: 2016

PARTNERS: City Planner, Planning Commission, City Engineer, Transportation Advisory Committee, City Council

NOTES: Vermont Agency of Transportation has published an Access Management Guidebook and Best Practices document that include recommended access management provisions. This could be incorporated into the revision of the city's commercial and industrial zoning districts recommended in the land use chapter.

Develop a citywide long-range bicycle and pedestrian plan.

8

STATUS: No action has been taken to date.

TIMING: 2016

PARTNERS: City Planner, Planning Commission, Semprebon Bike Path Committee, City Engineer, Transportation Advisory Committee, City Council

NOTES: This could build upon the bike path planning work already completed, as well as the PEQI and Complete Streets assessments recommended above. The plan would be tool to help the city prioritize bike and pedestrian improvements, and coordinate small sidewalk or path projects into an interconnected system that would be completed over time.

9 Complete construction of the bike path through the city.

STATUS: Final engineering for the path is in progress.

TIMING: 2017

PARTNERS: City Engineer, City Planner, Transportation Advisory Committee, City Council

NOTES: Supported by the Semperbon funding, the city hopes to complete the Depot-to-Museum segment by 2015 and the Depot-to-Barre Town segment by 2017. Many grant applications have been submitted to help cover the remaining costs.

10 Re-engineer the railroad trestle on Vanetti Place to mitigate flood hazards.

STATUS: No action has been taken to date.

TIMING: 2017

PARTNERS: City Engineer, Transportation Advisory Committee, City Planner, VTrans, City Council

NOTES: This project is listed in the city's 2012 Hazard Mitigation Plan as a medium priority action.

benchmarks

Barre City should measure progress towards achieving our vision for a healthy future against the following benchmarks:

1 Miles of sidewalk in Barre City. Walking contributes to minimum requirements for physical activity, does not contribute to noise or air pollution emissions, and reduces transportation energy consumption and costs. A vibrant pedestrian environment contributes to economic vitality and social interaction within the community.

Source: Barre City GIS Mapping

In 2010:	22
Target for 2020:	25

2 Percentage of dwellings in Barre City located on a street with a Pedestrian Environment Quality Index of 61 or higher. Quality, safe pedestrian and bicycle environments support a decreased risk of motor vehicle collisions and an increase in physical activity and social cohesion with benefits including the prevention of obesity, diabetes, and heart disease as well as stress reduction and mental health improvements that promote individual and community health. Environments that encourage walking and biking while discouraging driving can further reduce traffic-related noise and air pollution. *Source: Barre City Street PEQI Assessment*

In 2010:	Need to complete assessment. See Next Step #6, above.
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Target for 2020: TBD once assessment completed.

3 Miles of multi-use paths in Barre City. A multi-use path network can help encourage people to increase their daily activity by providing a convenient and appealing place to walk or bike that is separated from vehicles and that can provide a safer, quieter and more relaxing environment. *Source: Barre City GIS Mapping*

In 2010: <1
Target for 2020: 4

4 Percentage of Barre City residents who walk, bike or take transit to work. Environments that support

walking, biking and transit trips as an alternative to driving have multiple potential positive health impacts. Studies have shown that around 30% of people using transit to get to work meet their daily requirements for physical activity from walking between destinations and transit stops. *Source: US Census Bureau, American Community Survey*

In 2010: 5%
Target for 2020: 10%

5 Annual transit rides per Barre City resident. Public transit can provide affordable, safe and equitable access to work, home, education, shopping, services, and social activities. Public transit, particularly as an alternative to driving, also provides health benefits such as increasing physical activity, reduced pollution and greenhouse gas emissions, reduced fatalities and injuries and greater social cohesion. *Source: GMTA Annual Report*

In 2010: 4
Target for 2020: 12

6 Percentage of Barre City dwellings located within 1/4 mile of a transit stop. Proximity to public transit helps to determine travel choice. Studies have shown that for every quarter mile increase in distance to transit, the likelihood of someone using the service falls by 16%. Residents in communities with access to good public transportation systems tend to drive 20% to 40% fewer annual miles than they would if they lived in a more automobile-oriented community. *Source: Barre City GIS Mapping*

In 2010: 40%
Target for 2020: 60%

PUBLIC UTILITIES

planning for public utilities

Public utilities greatly affect the city's economic vitality, our residents' health and quality of life. To achieve our vision of a healthy future, Barre City needs a system of public utilities that is reliable and well maintained, that has affordable rates, and that is capable of supporting growth.

The pipes and wires that run beneath city streets, inside building walls and overhead provide the basic necessities of modern life – clean drinking water, sanitation, electric power and communications. The city is directly responsible for providing some public utilities, while utility and private companies or regional entities provide other services. While the city no longer directly provides solid waste facilities, it is still involved in planning how that essential service is provided in the region and where any future solid waste facilities may be located.

A large part of the city's role as a utility provider relates to managing water. An adequate supply of potable water is one of our most basic needs with every person requiring two liters of clean drinking water each day. Sanitary sewers that properly collect and treat wastewater are essential for protecting the health of all city residents and the natural environment to which our wastewater is returned. Stormwater also needs to be effectively managed to prevent flooding hazards and pollution. Collecting, processing and pumping water are energy intensive activities, which result in both financial and environmental costs.

key points

1 Aging Infrastructure. Barre City has a well-developed system of public utilities with public water, public sewer, electric and broadband telecommunications services available throughout the city. Some components of these systems, however, are aging and need to be replaced and/or upgraded to modern standards. With little state or federal financial assistance for infrastructure projects, the city and utility providers look primarily to rate payers to fund needed improvements, requiring a careful balance between the goals of maintaining quality service and affordable rates for customers. Unlike many communities, Barre City has a long-term plan and is actively working to upgrade the city-owned infrastructure, investing in approximately \$7 million in improvements in recent years. Completion of all the projects on the city's current list of planned infrastructure improvements would have a total cost of more than \$13 million.

2 Capacity to Support Growth. Barre City's water and wastewater systems have capacity available to support growth and development. The water filtration plant is operating at less than one-third of its capacity and the wastewater treatment facility is operating at less than three-quarters of its capacity. This infrastructure capacity provides the city with an advantage over other communities in the area that do not have further capacity to support growth.

3 Stormwater. Barre City's storm drainage infrastructure is less developed than municipal water and wastewater systems, and will likely need to be expanded over time. To continue efforts to minimize flooding damage and improve water quality, the city will likely need to construct additional infrastructure to collect, treat and manage the discharge of stormwater. The recently completed North Main Street Reconstruction project addressed a number of stormwater problems in downtown Barre City. The city's hazard mitigation plan identifies a number of additional infrastructure improvement projects that would improve stormwater management and reduce flood hazards.

4 Telecommunications. Access to state-of-the-art telecommunications infrastructure is critical to the city’s future economic success. Just as Barre City needed a connection to the railroad to spur industrial development in the late 1800s, today the city needs to be connected to the digital information networks that are the catalysts for economic development in the 21st century. Barre City has complete broadband service, but given the rapid pace of change in the telecommunications sector the city will need to remain vigilant to ensure infrastructure is upgraded as technology evolves and to improve the ability of all city residents to use and have affordable access to these technologies.

5 Solid Waste. On average every Vermont resident currently generates one ton of waste per year, two-thirds of which is landfilled or incinerated. Central Vermont Solid Waste Management District (CVSWMD) has adopted a goal of working to achieve “zero waste” in our district. The “zero waste” goal should help create new businesses and jobs through waste-based economic development, strengthen existing businesses, and protect public health and the environment. By the end of the decade, we anticipate that a much larger percentage of our waste will be reused, recycled, composted or otherwise diverted from the waste stream.

issues & challenges

Barre City has identified the following challenges and issues related to our public utilities that need to be addressed to achieve our vision for a healthy future:

1 Water and Wastewater Infrastructure. Barre City’s drinking water and wastewater treatment plants are modern, but our distribution system still has some pipes that more than 90 years old. The city is actively working to upgrade the distribution system, but it will take time and sustained funding to modernize underground pipes throughout the city. The city has identified approximately \$2.5 million worth of improvements needed to the water transmission and distribution system, and \$8 million in improvements to the wastewater collection system. Most of these projects have been planned for at least a decade.

2 Safe Drinking Water. Barre City’s water supply is an open reservoir in the Town of Orange, which is susceptible to contamination whether accidental or intentional. While there have never been any contamination problems, there have been incidents that could have caused contamination such as a plane that landed on the reservoir and a car that crashed into it.

3 Stormwater Infrastructure. Similar to the water and wastewater distribution system, much of the city’s stormwater infrastructure was built prior to modern engineering standards. The pipes and culverts designed to transport stormwater out of the city are undersized in many places. Much of the flooding damage that has occurred in recent years is related to the inability of the stormwater system to handle the amount of run-off being generated. The city’s hazard mitigation plan identifies a number of specific improvements that are needed to address our undersized stormwater infrastructure. There are nearly \$1 million in stormwater-related projects included on the city’s list of planned infrastructure improvements.

4 Stormwater Management. During the 2000s, federal and state stormwater regulations became more stringent and were applied to smaller development projects. More communities around the country are establishing stormwater management utilities, whereby property owners pay a fee to the municipality based on the amount of additional runoff from their site in return for the municipality taking responsibility for maintaining and/or providing a stormwater management system. The city may need to consider establishing a stormwater management utility fee if the costs for complying with stormwater regulations exceed the ability to fund required improvements through regular property taxes, or if meeting state and federal regulations becomes too burdensome for individual property owners and coordinated action is required. Alternatively, the city can use various regulatory techniques to help reduce stormwater run-off such as requiring development to limit new or reduce existing impervious surfaces.

5 Landfill Siting. The possibility of the need to site a new landfill in the region is a matter of ongoing concern. The city was satisfied with CVSWMD’s 2005 landfill siting criteria and it is the city’s policy that the criteria requirements should not be made any less stringent in the future. Further, it is the city’s position that when reviewing a proposed landfill site, the impact of additional vehicles hauling regional waste on Barre City’s arterial roads should be closely evaluated. Route 302, which serves as a major arterial through Barre City runs through the downtown business district. Downtown already suffers from the problems associated with truck traffic and additional truck traffic resulting from a regional landfill should not travel through downtown on a regular basis. In addition, Route 14 runs mostly through high-density residential areas and is also not suitable for the amount of additional truck traffic that could be generated by a regional landfill.

6 Yard Waste. Barre City residents do not have convenient, affordable options for disposal of yard waste (grass clippings, branches, leaves, etc.). Some residents dispose of their yard waste by dumping it over a river bank or on nearby undeveloped land. The resulting debris left in drainage ways can become a hazard during storms as it can create blockages that lead to flooding of nearby property when water cannot flow through a channel. Yard waste can become a potential resource if properly collected, and then composted or chipped.

7 Property Maintenance. Barre City has increased its enforcement of property maintenance ordinances in recent years. The result has been a noticeable decrease in the number of properties where trash, junk vehicles and vehicle parts, appliances, furniture and similar household items have accumulated, creating unsightly, unsanitary and unsafe conditions for residents and neighbors. Continued enforcement of property maintenance ordinances and providing convenient, affordable options for proper disposal of large household items will be needed to keep this problem in check.

strengths & opportunities

Barre City has already acted to improve our public utilities, and there remain many strengths and opportunities we can build upon to continue those efforts as we strive to achieve our vision for a healthy future:

1 Capacity to Support Growth. Barre City’s water and wastewater systems have excess capacity available to support growth and development. The city is currently using less than one-third of the capacity of the water filtration plant and the wastewater treatment facility is operating at less than three-quarters of its capacity. There is also three-phase power throughout downtown and in many other parts of the city. This infrastructure capacity provides the city with an advantage over other communities in the area in attracting new businesses. The economic development implications of extending infrastructure further outside the city or selling additional capacity to outlying towns should be carefully considered.

2 Upgraded Infrastructure. Unlike many communities, Barre City has recognized the need to address the issue of aging infrastructure. The city has spent the past decade upgrading our water and sewer distribution system. This effort has been coordinated with the street reconstruction program so that old pipes are upgraded at the same time as the street – an efficient and cost-effective approach that avoids digging up a new street in order to repair an old pipe. The challenge in future years will be finding the funding to keep this program going at the level needed to keep our infrastructure in adequate condition. In recent years, the city has invested more than \$7 million in our water, sanitary sewer and storm sewer systems.

3 Phosphorus Removal. The city’s treated wastewater effluent is released into the Steven’s Branch, which is part of the Lake Champlain watershed. There is a cap on how much phosphorus the wastewater treatment plants within the watershed are allowed to send into the lake. The Barre City wastewater treatment plant has been upgraded to improve its ability to remove phosphorus from the effluent and is currently discharging less than 25% of its limit, providing ample capacity to accommodate growth.

4 Well-Mapped and Inventoried Utilities. Barre City has also mapped and inventoried underground infrastructure more accurately and completely than most communities. This information allows for more efficient repairs when a line breaks or other problem occurs, and it improves our ability to effectively plan for improvements to the distribution systems.

5 Source Water Protection Plan. Barre City has a Source Water Protection Plan and inventories the properties adjoining the reservoir that provides the city’s drinking water every three years to prevent potential contamination.

6 Waste-Based Economic Development. The project currently underway by ReSOURCE to restore the historic granite shed at 30 Granite Street is an example of waste-based economic development and adaptive reuse of the city’s industrial buildings.

The project’s retail component, the ReSTORE which opened in December 2008, is a reuse operation offering household goods, appliances, building materials, and art supplies. When work is completed, the former granite shed will be the hub of social enterprise activities, serve as a learning site for at-risk youth and unemployed workers, house a new performance space for concerts spotlighting local artists, provide creative materials for artists and educators, and give families in crisis access to basic household goods and services.

goals & strategies

Barre City has established the following goals and strategies for public utilities in order to achieve our vision for a healthy future:

1 For Barre City’s public utilities to provide business and residential customers with reliable and affordable services as needed to support economic vitality and quality of life in the city.

- A.** Maintain public water and sewage systems that meet state and federal standards, and that support the city’s goals for economic and residential growth.
- A-1.** Continue upgrading aging water and sewer pipes in coordination with the city’s street reconstruction program.
- B.** Continue efforts to improve stormwater drainage infrastructure within the city.
- B-1.** Adopt a policy to guide the sizing of culverts to ensure that new or replacement infrastructure will be better able to carry stormwater out of the city during heavy storms.
- B-2.** Implement the stormwater improvements identified in the city’s hazard mitigation plan.
- C.** Continue to actively participate in the Central Vermont Solid Waste Management District and advocate for regional solid waste management practices, policies and facilities that will benefit Barre City residents and business.
- C-1.** Support CVSWMD’s “zero waste” goal and assist in its implementation.
- C-2.** Oppose solid waste projects that would re-direct more of the region’s waste hauling truck traffic through the city’s downtown business district or residential neighborhoods.
- C-3.** Review the regional Solid Waste Plan (SWIP) each time it is revised and re-adopted.

next steps

Barre City should pursue the following actions in order to achieve our vision for a healthy future:

1 Prepare and adopt a Capital Improvement Program, which would incorporate the capital improvements needed by city-owned utilities into a municipal capital planning and budgeting process that would include all city departments/services.

STATUS: No action to date.

TIMING: 2014

PARTNERS: City Manager, Planner, Planning Commission, Department Heads, Council

NOTES: The city could apply for a Municipal Planning Grant to prepare a capital plan & budget.

Expand and upgrade culverts on Beckley Street, Farwell Street, Onward Street, East Street, Packard Street, and Depot Square.

STATUS: Some upgrades completed or in progress as part of North Main Street Reconstruction and City Place project.

TIMING: Work currently underway and continuing in subsequent years.

PARTNERS: City Manager, City Engineer, City Council, City Planner

NOTES: These upgrades are listed as high priority actions in the city's 2012 Hazard Mitigation Plan. Funding may be available through the Hazard Mitigation Grant Program.

Install guard rails around the city's reservoir.

STATUS: No action taken to date.

TIMING: 2017

PARTNERS: City Engineer, City Manager, City Council

NOTES: This project is listed in the city's 2012 Hazard Mitigation Plan as a medium priority action. It may be eligible for partial funding from the EPA.

Pursue further waste-based economic development, expanding and building upon the success of ReSOURCE's project at 30 Granite Street.

STATUS: The solid waste district's "zero waste" policy and Act 148, which established universal recycling and composting statewide, create an opportunity for economic growth in this sector.

TIMING: Work currently underway and continuing in subsequent years.

PARTNERS: City Manager, City Planner, Barre Area Economic Development

benchmarks

Barre City should measure progress towards achieving our vision for a healthy future against the following benchmarks:

1 Annual number of water quality violations. The quality of drinking-water is a critical determinant of health. Clean drinking water is a foundation for the prevention and control of waterborne diseases. *Source: Vermont Agency of Natural Resources, Drinking Water and Groundwater Protection Division*

In 2010: 1
Target for 2020: 0

2 Annual number of sewer overflows. Untreated sewage carries pathogens that can be spread to surface waters, drinking water supplies and swimming areas. It can also kill aquatic life and create algal blooms. *Source: Vermont Agency of Natural Resources, Wastewater Section*

In 2010: 1
Target for 2020: 0

3 Annual tons of municipal solid waste generated per city resident that is not diverted from the waste stream. Recycling helps reduce potential risks to human health and the environment, conserve energy, slow depletion of nonrenewable natural resources and diverts waste from landfills and incinerators. The ability to divert waste reduces the need of natural resource extraction, conserves energy and reduces emissions associated with new production and transport. The inappropriate storage and disposal of organic waste attracts rodents and insects. Diverting waste can

reduce groundwater contamination from landfills and toxic air emissions from incineration. Illegal waste disposal can also impact drinking water, wastewater and storm water systems. Space used for waste disposal uses land that can be used for other purposes. *Source: Central Vermont Solid Waste District*

In 2010:	0.6
Target for 2020:	0.4

energy planning

Barre City recognizes that energy is a critical building block for the health and well-being of our community and residents. To achieve our vision of a healthy future, Barre City needs access to reliable, affordable and clean sources of energy.

While energy is an issue with a global scope, many of our choices and decisions at the individual and community level affect how energy is consumed and generated. In the face of inaction on energy issues by larger units of government, municipalities around the country have taken up the challenge to reduce local generation of climate-changing greenhouse gases by improving energy efficiency and promoting renewable energy sources within their communities.

Actions that reduce greenhouse gas emissions usually have other benefits. For example, strategies to reduce the number of vehicle miles driven will likely result in increased physical activity, better air quality, and fewer vehicle collisions as people drive less and increasingly walk, bike or take public transit for transportation.

As the cost of energy continues to rise and the effects of climate change are beginning to be felt, the need for effective planning and policies becomes more evident. Energy costs are consuming an ever-expanding portion of household, business and government budgets. Rising energy costs are especially problematic for low-income and fixed-income households.

The largest percentage of the energy used by households is for transportation, and there is a lot we can do at the local level to reduce that demand. Another significant percentage of energy use goes to heat and cool buildings, and again this is an area where city actions and policies can make a difference. Electricity is the third principal component of household energy use and our individual choices can greatly affect energy consumption in this sector.

key points

1 Municipal Energy Use. Barre City could realize multiple benefits through greater energy efficiency and conservation in municipal operations. Energy costs, which are anticipated to continue increasing, are a significant component of the city budget and reducing those costs would be a direct savings to taxpayers.

2 Home Energy Use. The energy used to heat, cool and power our homes accounts for about one-third of the energy consumed in Vermont. About 45% of that energy is provided by electricity, 45% comes from fossil fuels, and 10% is from renewable sources. Home energy can also account for a substantial portion of a household's budget, especially for low- and moderate-income households. Most homes in Barre City are not that energy-efficient and need weatherization and other efficiency improvements to make them healthier, more comfortable and more affordable places to live. Of particular concern are the many rental properties in the city where the tenant pays separately for heat. Landlords have very little financial incentive to invest in efficiency upgrades for these buildings.

3 Transportation Energy Use. The transportation sector consumes another third of the energy used in Vermont and is also a major component of most household budgets. Virtually all the energy used in this sector is from fossil fuels, the price of which has been increasing in recent years. Unlike most places in Vermont, it is possible to live in Barre City without a car because our homes, shops, services, schools and employment are in close proximity and there is public transit service. Improving transit service, making the city a better place to walk and bike, and increasing the number of people living and working downtown, will further reduce the amount of energy used for and dollars spent on transportation by city residents.

4 Commercial and Industrial Energy Use. The final third of energy used in Vermont powers commercial and industrial activities. Around 65% of energy businesses use is from electricity, 35% is from fossil fuels and 5% is from renewable sources.

issues & challenges

Barre City has identified the following energy challenges and issues that need to be addressed to achieve our vision for a healthy future:

1 City Codes and Regulations. For many years energy efficiency has been seen as a desirable goal and a laudable personal choice, but not something that should be mandated by government. As a result, the city has done little to require property owners or developers to increase the energy efficiency of the city's building stock.

2 Age and Condition of Homes. More than half of the homes in Barre City were built before 1940 and many need improvements to make them more energy efficient. A household that can afford to purchase a home in Barre City may not be able to afford further investment in substantial improvements to make the building energy efficient even though doing so would save them money over the long-term. The PACE district, if implemented, could provide a more affordable option for homeowners who want to make efficiency upgrades. There are also a number of programs available to assist income-eligible homeowners with weatherization and energy efficiency upgrades.

3 Efficiency of Rental Housing. If tenants pay for their own heat, there is little incentive for landlords to invest in energy efficiency improvements. This is particularly a concern when units are rented to low-income households who cannot afford to adequately heat their home. If households living in inefficient units qualify for home heating assistance, scarce public resources are being spent inefficiently. Given that the demand for home heating assistance is significantly greater than the availability of funding, improving the energy efficiency of these residences is a high priority.

4 Efficiency of Municipal Facilities. Energy audits have been completed at most municipal facilities and many improvements are needed to increase their efficiency, this includes City Hall, the BOR and Auditorium, public works facilities, Barre Area Senior Center building, and others. Reducing the cost of operating these facilities could increase funding available for direct services, programs, projects and other improvements recommended throughout this plan. Over the long-term, it will also save taxpayers from ever-increasing energy bills.

strengths & opportunities

Barre City has already taken action on energy issues, and there remain many strengths and opportunities we can build upon to continue those efforts as we strive to achieve our vision for a healthy future:

- 1 **Tax Stabilization.** Barre City offers tax stabilization to both residential and non-residential property owners who make significant investments in their buildings, including energy efficiency improvements.
- 2 **PACE District.** Barre City voters approved a PACE District in 2012, but the city has not yet fully implemented the program. The PACE program is intended to help homeowners make energy improvements by providing loans that will be paid off by the participating property owner through a special assessment tax over a period of up to 20 years. Non-participating property owners will have no obligation to pay for any of the costs of the PACE district.
- 3 **Density.** People living and working in Barre City can be less dependent on personal vehicles and can choose more energy-efficient means of transportation (public transit, walking, biking) because of the city’s higher density and the proximity of homes to employment and services as compared to surrounding rural towns.
- 4 **Availability of Services and Resources.** Barre City hosts a number of organizations and businesses that provide energy efficiency services and resources to the community. There is an ad-hoc group of Barre Town and City residents working on energy issues – Barre Energy Action Resource (BEAR).
- 5 **Municipal Energy Savings.** Barre City has completed energy audits for a number of municipal facilities and plans to schedule the recommended improvements. The city recently completed a project to offset municipal energy costs by generating power at the Nelson Street Pressure Reduction Valve Control Vault (a component of the city’s water system). With the assistance of BEAR, the city has conducted a streetlight inventory to assess whether eliminating unnecessary lights or making other changes could reduce the annual cost of street lighting.

goals & strategies

Barre City has established the following energy goals and strategies in order to achieve our vision for a healthy future:

- 1 For Barre City government, businesses and residents to have a reduced dependence on nonrenewable and imported energy sources, while continuing to have access to reliable and affordable energy sources.
 - A. Practice and incorporate energy conservation and use of renewable energy within city operations.
 - A-1. Continue to implement the recommendations of the energy audits of city-owned buildings.
 - A-2. Explore opportunities to generate renewable power at city-owned facilities and sites.
 - A-3. Consider the lifecycle cost (purchase + operation) of city vehicles when making purchasing and replacement decisions.
 - A-4. Consider alternative fuel vehicles when making purchase and replacement decisions for city vehicles.
 - A-5. Make energy efficiency one of the decision-making criteria within a comprehensive capital improvement program.
 - A-6. Reduce the amount of energy consumed and tax dollars spent on streetlighting, while continuing to maintain the light levels needed for public and traffic safety.
 - B. Promote increased use of alternative fuel vehicles, public transit use, ride sharing, bicycling and walking to reduce energy consumed for transportation.
 - B-1. Consider incorporating electric vehicle charging stations into planned improvements to city-owned parking lots and facilities.
 - B-2. Develop a bicycle and pedestrian plan as recommended in the Transportation chapter of this plan.
 - B-3. Increase the number of public transit stops and routes in Barre City as recommended in the Transportation

chapter of this plan.

- B-4. Consider establishing an incentive program for city employees who regularly carpool, take public transit, walk or bike to work.
- C. Promote the transportation energy savings associated with locating homes and businesses in Barre City – a compact, high-density, walkable urban center with public transit service – as compared to outlying rural towns.
- D. Support mixed-use development, which reduces energy consumed for transportation, by providing housing in close proximity to services and employment.

2 For new buildings in Barre City to be highly energy efficient and for improvements to be made to increase the energy efficiency, and lower the operating costs, of our existing building stock.

- A. Increase awareness and use of the city’s tax stabilization programs as a means to encourage both commercial/industrial and residential building owners to make energy efficiency improvements.
- B. Update the energy efficiency and conservation standards in the city’s subdivision ordinance, zoning regulations, building code and rental inspection code.
- C. Implement the voter-approved Property Assessed Clean Energy (PACE) program in Barre City.
- D. Explore the feasibility of providing district heating in downtown Barre City.

next steps

Barre City should pursue the following actions in order to achieve our vision for a healthy future:

1 Appoint an Energy Committee to coordinate the city’s energy planning, efficiency, conservation and generation efforts.

STATUS: No action taken to date.

TIMING: 2013

PARTNERS: BEAR, City Manager, City Council

NOTES: An ad-hoc group of Barre Town and City residents formed Barre Energy Action Resource (BEAR) in 2011, but the group has not been officially sanctioned by city government. The City Council should ask BEAR whether they are interested in serving in the role of the city’s official energy committee. One of the main tasks of the city’s energy committee should be to increase residents’ awareness of the technical assistance and funding already available through Efficiency Vermont and other programs to audit, weatherize and otherwise improve the energy efficiency of homes and buildings in the city.

2 Schedule and begin to complete energy efficiency upgrades to city-owned buildings.

STATUS: Energy audits have been completed at most city-owned buildings. The recommended energy efficiency upgrades need to be prioritized and scheduled.

TIMING: Schedule completed in 2013 with projects underway in subsequent years.

PARTNERS: City Manager, City Council

NOTES: Energy efficiency upgrades to city facilities should be incorporated into the comprehensive Capital Improvement Program recommended in the Utilities chapter of this plan.

3 Consider implementing the voter-approved Property Assessed Clean Energy (PACE) program.

STATUS: City voters approved creation of a PACE District in 2012.

TIMING: 2014

PARTNERS: City Manager, City Council, BEAR

NOTES: Following 2011 legislative changes, the Vermont Department of Banking Division issued updated guidelines for PACE Districts in April 2012 that address many of the uncertainties associated with and questions raised by the Federal Housing Finance Agency about this program. Efficiency Vermont is now able to administer a PACE program on behalf of a municipality with the associated fee borne by program participants.

4 Adopt energy-efficiency standards for rental units, particularly those that do not include heat as part of the rent.
STATUS: No action taken to date.

TIMING: 2015

PARTNERS: Energy Committee, Fire Department, City Planner, City Manager, City Council, CVCLT

NOTES: City of Burlington’s Minimum Energy Efficiency Standards Ordinance is an example of such an ordinance. This task could be incorporated into the broader revisions to the minimum housing code recommended in the Housing chapter.

5 Incorporate ‘energy smart’ provisions as part of future revisions to the city’s land use and development regulations.

STATUS: No action taken to date.

TIMING: 2017

PARTNERS: City Planner, Planning Commission, Energy Committee, City Council

NOTES: VECAN’s Energy Planning and Implementation Guidebook for Vermont Municipalities includes a number of specific recommendations for regulations that support energy efficiency and conservation, renewable energy, and transportation efficiency. Such standards could be incorporated into the revisions of the regulations recommended in the Land Use chapter.

benchmarks

Barre City should measure progress towards achieving our vision for a healthy future against the following benchmarks:

1 **Per capita electricity consumption in Barre City.** Energy conservation reduces air pollution, greenhouse gas emissions, and the pollution associated with production and transport of energy sources like oil and coal.

In 2010: Approximately 3,400 kWh

Target for 2020: 2,800 kWh

2 **Amount of renewable energy produced in Barre City annually.** Renewable energy sources, particularly when combined with higher levels of energy efficiency, can significantly reduce emissions of carbon dioxide and air pollutants, improve environmental quality, and make a contribution to improved public health.

In 2010: Unknown

Target for 2020: 20%

3 **City government annual energy consumption.** Many municipal operations are energy-intensive and municipal facilities are inefficient. Energy costs are rising and are expected to continue to increase for the foreseeable future. The city could realize significant long-term savings by acting now to reduce energy consumption.

In 2010: Unknown
Target for 2020: 20% reduction from 2010

COMMUNITY SERVICES AND AMENITIES

planning for community services & amenities

Barre City understands that community services and amenities are necessary to maintain the health and well-being of our neighborhoods and residents. Demand for community services and amenities and the level of civic engagement is greatly affected by our city's demographics such as the age, income, health and education of city residents. To achieve our vision for a healthy future, Barre City needs to provide the community services and amenities that foster an attractive quality of life without placing an excessive burden on taxpayers.

Protecting public health, safety and welfare is a basic role of government. The City of Barre fulfills that role through the provision of public services like police, fire, EMS, road maintenance, code enforcement and emergency/disaster response. Residents also look to city government to directly provide or contribute funding for services that enrich our daily lives such as parks and recreation programs, schools and educational opportunities, library, arts, cultural and historical amenities, and social and human services. City government also has a responsibility to keep residents well informed about community issues, invite all residents to participate and express their views, and make decisions that affect all of our lives in an open and transparent way.

key points

1 Cost of City Government. The cost of running city government has been increasing above the rate of inflation. Such growth in our municipal budget cannot be sustained without corresponding growth in the city's tax base. Yet, we are unlikely to be successful in our economic development and revitalization efforts, which are necessary to expand the tax base, if we cannot provide the municipal services needed to support growth. Keeping the cost of city government at a reasonable level while taking the steps needed to improve municipal facilities and services is a critical challenge for Barre City.

2 Demographics. Barre City has a disproportionately high number of residents who rely on various community services as compared to surrounding towns. This includes seniors, people with disabilities, people without permanent housing, released offenders, refugees/immigrants and others. The resulting higher demand is a particular concern for those services that are primarily funded by local taxpayers - police, EMS and schools. Barre City also has a more transient population than most Vermont communities with people moving in and out of the city, and moving from place-to-place within the city, which creates further challenges to providing community services, communicating with city residents and fostering civic engagement.

3 Public Safety. Despite perceptions to the contrary, Barre City is generally a safe community. Between 2005 and 2010, Barre City's overall crime rate ranged from 50 to 81 incidents per 1,000 residents each year (as reported in the Vermont Crime Report). The city's crime rate is similar to other urban communities in Vermont like Brattleboro, Montpelier, Newport and St. Johnsbury, and is lower than the crime rate in Burlington, Rutland and Winooski. According to the 2010 Vermont Crime Report, 80% of reported crimes were against property, primarily theft and vandalism.

4 Police Department. Barre City has a municipal police department that included 18 full-time and 12 part-time officers and six dispatchers in 2011. The police, fire and EMS are managed by a Public Safety Chief. The department's operating budget in FY2012 was \$1.5 million, which included \$1 million in salaries and \$160,000 in overtime pay. The Barre City Police Department responded to about 9,400 calls in FY2012.

5 Fire and EMS. Barre City has a municipal fire and emergency medical service (EMS) department consisting of 18 full-time responders and approximately 20 part-time personnel. The department's operating budget in FY 2012 was \$1.9 million, which included \$1 million in salaries and \$155,000 in overtime. The department responded to 783 fire calls and 2,463 EMS calls in FY 2012 making it the second busiest in the state.

6 Recreation. Barre City has a municipal Recreation Department, which is responsible for the operation of the city's parks and recreation facilities, and for offering a variety of year-round recreation programs for residents of all ages. The department's operating budget in FY 2011-12 was \$87,000 with an additional \$175,000 spent operating the BOR Shelter. The city's Facilities Department and the Cemeteries and Parks Department maintain the recreation areas and parks. As a result of contributions from the Semprebon Fund, a number of playgrounds throughout the city have been upgraded with new equipment and other improvements in recent years.

7 Library. The Aldrich Public Library sits in a prominent downtown location across from City Hall Park. While an independent nonprofit organization, Aldrich Library relies upon the city and town for a significant portion of its annual operating budget. The city appropriated \$108,000 for the library in FY2011-12, but the library has requested that both the city and town increase their appropriations to \$150,000 annually. Around 6,400 city residents (about 70%) are registered library borrowers and city residents borrow nearly 40,000 items from the library each year.

8 History and Culture. Barre City has a wealth of historic and cultural assets that express our community's unique heritage. There are two National Register Historic Districts in the city, as well as a number of individually listed sites and buildings. Our downtown is home to a number of culture and arts institutions including the Barre City Opera House, Studio Place Arts and the Vermont History Center. Throughout our community are reminders of our granite heritage including the impressive granite monuments in parks and cemeteries, the Old Socialist Labor Party Hall and the Vermont Granite Museum.

9 Schools. Barre City has an elementary and middle school, which serves students from pre-kindergarten through eighth grade. Enrollment in 2010-11 averaged 860 students. City students in grades 9 through 12 attend Spaulding High School along with students from Barre Town. Total high school enrollment in 2010-11 averaged 810 students. The Barre Technical Center, co-located with Spaulding High School, offers hands-on career training programs for high school students and adults from throughout Washington County.

10 Childcare. There were nine licensed daycare centers/programs and 27 registered home daycare providers located in Barre City in May of 2013; The licensed daycare providers were reporting fewer than 20 vacancies, while the home daycare providers could have accommodated 50 additional children in total. Parents in Barre City seeking a childcare provider or related assistance can contact Child Care Support Services at the Family Center.

11 Seniors. Barre City has a large population of seniors and is a regional provider of senior housing with approximately 300 units. About 20% of Washington County residents age 74 or older live in Barre City and those residents account for 8% of the city's total population. There are a number of organizations based in the city and neighboring communities that provide services to seniors. There is a Senior Center based in the city-owned Wheelock Building.

12 Healthcare. Barre City residents can access a range of healthcare services within the city and neighboring communities including Central Vermont Medical Center (CVMC), the People's Health and Wellness Clinic and Central Vermont Home Health & Hospice, as well as a number of private healthcare practitioners.

issues & challenges

Barre City has identified the following challenges and issues that need to be addressed to achieve our vision for a healthy future:

1 Cost of City Government. In FY 2010-11, Barre City’s general fund budget was \$9.2 million, nearly \$6.2 million of which was raised through taxes. During the 2000s, the cost of municipal government grew at an average rate of 2.5 percent each year above the rate of inflation. Barre City has not significantly expanded city services and has had to cut some programs completely in an effort to curb increases. Providing the same level of city services and facilities is simply becoming more expensive each year, and as described elsewhere in this plan there are needs and demands for improved community services, facilities and amenities in Barre City that will be difficult to fund with the current tax base and economic climate.

2 Schools. Barre City’s school system faces a number of challenges related to the community’s demographics including high poverty rates, more students needing to learn English, a more transient population with students moving in and out of the district, and high rates of special needs students. Like others around Vermont, our school system struggles to contain the cost of education while providing necessary services.

3 Emergency Planning and Hazard Mitigation. The floods that struck the city and state in 2011 provided ample evidence of the critical need for city government, businesses and residents to be prepared for natural disasters. The city can become more disaster resistant by implementing sound land use, development and construction practices that take the risk and consequences of potential disasters into account and mitigate potential hazards in order to protect life and property.

4 Public Safety. Barre City’s police, fire and EMS departments are among the busiest in the state. Barre City has the highest rate of EMS calls of any Vermont community – an average of 300 calls per 1,000 residents each year, which is 10 times the statewide average. The number of EMS calls increased more than 60% during the 2000s. While the city is paid for medical transports and some other types of emergency response, the increased call volume has required additional personnel and overtime.

5 Recreation Programs and Facilities. The Recreation Department devotes a substantial percentage of its staff time to administrative activities that include all aspects of renting, contracting and billing for use of the Auditorium, Alumni Hall and the BOR Shelter. Without additional staffing for the department, there is limited ability to expand recreation programming. The department sees a need for better communication with city residents to increase awareness of recreation facilities and programs, and for more residents to help with improving neighborhood parks and running recreation programs. The department also believes that there are a significant number of children that would like to participate in the summer youth program based at Rotary Park, but who do not have a way to get there. Transportation to the park would enable more of the children who could benefit the most from the structured activities, educational opportunities and meal program to participate.

6 Childcare. Barre City residents and workers face the same childcare issues faced by families across the state – finding convenient, affordable, quality childcare. It is an ongoing challenge to attract and retain qualified personnel and programs in the childcare industry while keeping the cost of care affordable for working parents. The vacancy rates among childcare providers in the city is consistently low. The Family Center’s Child Care Support Services works to overcome this challenge by offering assistance to both parents and providers.

7 Senior Transportation. Older residents compose a large segment of Barre City residents who do not drive. GMTA helps to meet the transit needs of these residents by providing bus service from the senior housing complexes in Barre City to shopping and healthcare destinations on a weekly basis. Other social service agencies and organizations provide transportation services to seniors as well. However, there remains a need for improved transportation options for older city residents who do not or would prefer not to drive. A local “Senior Bus” could meet some of those needs and transport seniors to social events and activities in the city and around the region. Currently, the Barre Area Senior Center contracts with a tour bus company when it organizes trips. With access to a local bus, the center would be able to schedule more activities for its members.

8 Special Needs Population. Barre City provides housing for a significant population of people under the supervision of the state Department of Corrections (parolees and furloughees) and under the care of Washington County Mental Health. The region's primary homeless shelter is located in Barre City, as well as a large percentage of the region's most affordable housing. Having a disproportionately large special needs population living in the city is placing a strain on public services - the police, EMS, school system, etc. - and increasing costs for all city taxpayers. The city is strongly advocating for regional and state actions that would more equitably share the cost and responsibility of housing and caring for residents with special needs, rather than placing most of the burden on just a few municipalities around the state.

9 Information Technology and Telecommunications. Barre City government could benefit from improved information technology and telecommunications. This would require both upgrades to physical infrastructure and equipment, as well as training and time for city staff - all of which are currently lacking.

strengths & opportunities

Barre City has already acted to improve the city's community services and amenities, and there remain many strengths and opportunities we can build upon to continue those efforts as we strive to achieve our vision for a healthy future:

1 Neighborhood Parks. There are city parks and playgrounds located in all parts of the city, and nearly all residents live within walking distance of a city park or playground. The city has many residents, including seniors and families with children, who are of limited means or have limited transportation access, and neighborhood parks provide them with recreation opportunities that they would otherwise not be able to afford or to reach. For all residents, Barre City's neighborhood parks are an important contributor to quality of life, and serve as community focal points and gathering places.

2 Playground Improvements. The recent Semprebon bequest has provided the funding needed to upgrade the play structures and other amenities in many city playgrounds and parks. This work is currently underway and will continue for several more years. When complete, parks and playgrounds will be even greater assets for the neighborhoods and the city as a whole. Wobby Memorial Park, next to the Public Safety Building, is a model for what will be done at other parks around the city. The park is intended to provide north end residents with similar experience to what south end residents have at Rotary Park.

3 Summer Bike Patrol. The "Bumblebees" bike patrol is a successful example of an alternative approach to providing community services. The bike patrol is staffed by young adults, typically college students, and operates during the summer months to supplement police patrols.

4 Community Facilities. The Civic Center (Auditorium and Alumni Hall) and the BOR Shelter serve a critical role as community gathering places. The Civic Center has been equipped with a back-up generator and it is used as a Red Cross Certified Shelter during storms and disasters. The floods of 2011 highlighted the value of these structures to the city when hundreds of residents needed emergency shelter. These facilities provide a venue for large community events.

6 Inspection Program. The city has expanded and improved the building inspection program in order to more effectively identify and address deficiencies in rental housing. Improving the housing stock will help reverse negative perceptions about the city, increase property values and rental income, and attract a more socioeconomically balanced population to live in the city.

7 Emergency Preparedness. The city has improved its preparedness for emergencies and disasters. Our shelters are now certified by the Red Cross and Public Safety Department personnel continue regular emergency response training.

8 Nonprofit Partners. There are numerous nonprofit organizations based or working in Barre City that can help the city carry out the actions identified in this plan, including but not limited to: CVCAC, CVCLT, ReSOURCE, and Washington County Mental Health.

goals & strategies

Barre City has established the following goals and strategies for community services and amenities in order to achieve our vision for a healthy future:

1 For Barre City's government and partner organizations to provide community services and amenities, which are affordable to taxpayers, use tax dollars as efficiently as possible, enrich quality of life in the city and region, help attract new residents to the city, and support economic revitalization and growth.

- A. Provide police, fire and emergency medical services in a cost-effective manner.
 - A-1. Replace police, fire and EMS vehicles on a planned schedule to avoid the need to purchase multiple vehicles in any given year and the associated budget increases.
- B. Take action to reduce or eliminate the long-term risk to life and property from, and be prepared to respond to, emergencies and disasters.
 - B-1. Continue to improve, and regularly maintain, the city's stormwater infrastructure.
 - B-2. Increase public awareness of potential hazards in Barre City, and educate residents about how to better prepare for emergencies and adequately insure their property.
 - B-3. Improve communication before, during and after emergencies or disasters among various response personnel, between response agencies and city government, and between city government and residents.
 - B-4. Test, and improve as needed, the ability of emergency response services and critical community facilities to function during emergencies or disasters.
 - B-5. Comply with National Flood Insurance Program requirements and provide ongoing training NFIP training to city officials and staff.
 - B-6. Work with Barre Town and the state to keep the East Barre Dam in good condition and the spillway clear of debris.
- C. Provide recreational opportunities within the financial constraints of the city and participating organizations.
 - C-1. Continue to improve Rotary Park and make it a destination for city residents as well as residents of surrounding communities.
 - C-2. Maintain existing and plan for additional neighborhood parks as needed so that all city residents will live within walking distance of a city park or playground.
 - C-3. Encourage the development of private and non-profit recreation opportunities to supplement existing public recreation opportunities.
 - C-4. Encourage the surrounding communities to participate in cooperative efforts for joint recreation activities and facility usage.
 - C-5. Monitor neighborhood demographics and park usage on an on-going basis to ensure that neighborhood parks and playgrounds are meeting the needs of nearby residents.
 - C-6. Strive to provide parks and playgrounds that meet the needs of neighborhood residents, and modify park design or amenities as neighborhood demographics and recreational needs change.

2 For Barre City's unique heritage, historic resources and cultural assets to be preserved, celebrated, and contribute to our community's physical, economic and social revitalization.

- A. Enhance Barre City's appeal to residents and visitors by rehabilitating and showcasing our historic buildings and landmarks, and promoting our unique granite industry heritage and role in labor history.
 - A-1. Create a strong identity around granite-related history and attractions by increasing the visibility of these resources, improving the coordination between destinations, and integrating them more effectively into the

existing regional tourism promotion system.

- B. Expand and promote Barre City’s arts, cultural and entertainment offerings to make our community a more vibrant and attractive destination for residents and visitors.
 - B-1. Expand downtown festivals, events, and coordinated cultural and historic programs to bring residents and visitors downtown throughout the year.
 - B-2. Increase and improve promotion of cultural and historic events and resources at the Aldrich Library, Vermont History Center, Barre City Opera House, Old Socialist Labor Party Hall, Studio Place Arts, and the Vermont Granite Museum.
- C. Increase awareness of our heritage, historic resources and cultural assets.
 - C-1. Develop a coordinated system of directional and informational signs so residents and visitors can easily find and learn more about significant historic sites and buildings in the city.
 - C-2. Install public art and historic exhibits around the city.
 - C-3. Improve promotion and distribution of the downtown and cemetery walking tours.

3 For Barre City residents to be well-informed, active citizens.

- A. Disseminate information about city government in a timely and convenient manner.
 - A-1. Develop and maintain a user-friendly city website that is kept up-to-date with information about all aspects of city government and civic affairs.
 - A-2. Require that all city boards, committees and departments post meeting schedules, meeting minutes, policies, regulations, plans, studies and other public information on the city website in a timely manner.

next steps

Barre City should pursue the following actions in order to achieve our vision for a healthy future:

1 Prepare and adopt a Capital Improvement Program, which would incorporate the capital improvements needed to city buildings and facilities into a municipal capital planning and budgeting process that would include all city departments/services.

STATUS: A capital equipment plan was developed in 2013 but was not implemented.

TIMING: 2013

PARTNERS: City Manager, City Planner, Planning Commission, City Department Heads, City Council

NOTES: The city could apply for a Municipal Planning Grant to prepare a Capital Improvement Program.

2 Enroll in the National Flood Insurance Program’s Community Rating System.

STATUS: In progress.

TIMING: 2013

PARTNERS: City Manager, City Planner, Fire Department, City Council

NOTES: The National Flood Insurance Program’s Community Rating System is a voluntary incentive program that recognizes and encourages community floodplain management activities that exceed the minimum federal requirements. As a result, flood insurance premium rates are discounted to reflect the reduced flood risk.

3 Improve and expand the city's information technology and telecommunications infrastructure and use, redesign the city website so that it will be more user-friendly and so it can be more easily kept up-to-date, and develop and adopt a city policy on using the website and other media for all boards, committees and departments.

STATUS: No action to date.

TIMING: 2014

PARTNERS: City Manger, City Council and City Department Heads

NOTES:

4 Develop a second route to the elementary school that could provide an alternative means of accessing the school during an emergency or disaster.

STATUS: A route has been planned that will provide an emergency access through the park to Mill Street.

TIMING: 2014

PARTNERS: Barre School District, Barre City, Barre Town

NOTES: This project is listed in the city's 2012 Hazard Mitigation Plan as a high priority action.

5 Develop a second route to the Public Safety Building that could provide an alternative means of accessing the building during an emergency or disaster.

STATUS: No action to date.

TIMING: 2016

PARTNERS: City Manager, Fire Chief, City Engineer, City Council

NOTES: This project is listed in the city's 2012 Hazard Mitigation Plan as a high priority action.

6 Develop and adopt a citywide Parks and Recreation Plan.

STATUS: No action to date

TIMING: 2016

PARTNERS: Recreation Director, City Planner, Planning Commission, City Council

NOTES: This action could be coordinated with development of the Open Space Plan and/or Bicycle and Pedestrian Plan.

benchmarks

Barre City should measure progress towards achieving our vision for a healthy future against the following benchmarks:

1 **Percentage of dwellings located within 1/4 mile of a city park.** Parks provide measurable health benefits, from providing direct contact with nature and a cleaner environment, to opportunities for physical activity and social interaction.

In 2010: 70%

Target for 2020: 90%

2 **Acres of city parks per 1,000 residents.** Parks provide measurable health benefits, from providing direct contact with nature and a cleaner environment, to opportunities for physical activity and social interaction.

In 2010: 5
Target for 2020: 10

3 **Number of crimes per 1,000 residents in Barre City.** Experiencing and fearing crime is associated with negative health affects, a decreased sense of well-being, and a lower quality of life. *Source: Vermont Department of Public Safety, Vermont Crime Report.*

In 2010: 71
Target for 2020: 60

4 **Number of emergency medical calls per 1,000 residents in Barre City.** The need for emergency medical care is a direct measurement of residents' health and access to healthcare. *Source: Barre City Annual Report and the U.S. Census Bureau, Decennial Census.*

In 2010: 284
Target for 2020: 180

NATURAL ENVIRONMENT

planning for the natural environment

Barre City recognizes that a healthy natural environment is necessary to sustain the well-being of our community and residents. To achieve our vision for a healthy future, air must be safe to breathe, water must be safe to drink, land must be safe to use, and residents need access to green spaces, parks and undeveloped areas where we can recreate and enjoy nature.

Barre City's natural environment consists of air, water, earth and all the organisms that live here. How well these components interact determines the health of the local environment and impacts the city's economy, quality of life, and the health and well being of residents.

key points

- 1 Rivers.** Barre City is located along the banks of Stevens and Jail branches of the Winooski River because their waters were harnessed to power and provide transport for the industry and commerce that built the city. While no longer an economic engine, these urbanized river corridors continue to influence, and be influenced by, the development along their banks. The river corridors are the city's primary ecological resource and are important components of the city's open space network. They create both potential assets and hazards to the community.
 - 2 Undeveloped Land.** While largely developed, Barre City is not "built out" and has approximately 480 acres of privately-owned, undeveloped land remaining in large tracts. These remaining large tracts of undeveloped land include environmentally sensitive areas that pose substantial constraints to development. They also are an important component of the city's open space network.
 - 3 Open Space.** Maintaining and enhancing the city's open space network – both passive green space and developed recreation facilities – is a critical element of residents' quality of life. As density increases, the importance of community open space increases as fewer residents have spacious private yards. Open spaces provide opportunities for outdoor recreation, which positively affects public health and strengthens social ties.
 - 4 Brownfields.** Barre City developed as an industrial center and continues to have a sizable industrial sector. It is only in recent decades that there has been much consideration of the impacts of industrial activity and other types of development on the natural environment, and associated regulations to protect environmental quality. As a result, the city now faces the challenge of cleaning up polluted and blighted sites. These brownfields, once remediated however, provide opportunities for redevelopment and revitalization in the heart of the city.
 - 5 Green Infrastructure.** The city's natural environment is a dynamic system that is intrinsically linked with the city's built environment. While often overlooked in an urban setting, the environmental services that these natural systems provide are essential to maintaining public health, community character and quality of life in the city.
-

issues & challenges

Barre City has identified the following challenges and issues related to our natural environment that need to be addressed to achieve our vision for a healthy future:

1 Brownfield Remediation. To grow Barre City’s economy, our vacant or under-utilized industrial sites need to be revitalized. Securing funding for remediation will be an ongoing challenge. While some of the cost of that remediation will need to be borne by the city in the short-term, once redeveloped brownfield sites will generate a long-term return on our investment through job creation and increased tax revenues.

2 Flooding and Stormwater. Barre City will always face the challenge of flooding. It is not a hazard that can be prevented, but actions can be taken to minimize the threat to life and property. Mitigating flood hazards within floodprone areas of the city and managing stormwater throughout the city will need to be an essential component of our planning and development efforts.

3 River Corridors. Our rivers and streams create natural corridors through the city. Their banks remain largely vegetated, providing habitat and travel routes for wildlife. These riparian buffers are lacking or insufficient in some areas, and the city’s current regulations do not require that existing vegetation be maintained or new vegetation established along rivers and streams.

4 Lack of Regulations. The city’s land use regulations do not include adequate provisions to protect environmental quality and natural resources. There are not minimum standards for development on steep slopes or near rivers and streams. There are not requirements for minimizing and managing stormwater.

strengths & opportunities

Barre City has already acted to improve the city’s natural environment, and there remain many strengths and opportunities we can build upon to continue those efforts as we strive to achieve our vision for a healthy future:

1 Public Open Space. Barre City owns a significant amount of land, including several large parcels of undeveloped open land and more than 20 individual parks and recreation areas.

2 Private Open Space. There remains more than 480 acres of privately-owned undeveloped land in the city. Some of this land is suitable for development, while some will likely remain undeveloped.

3 Greenway Network. There is a significant amount of open space – both public and private – in Barre City, and the city maintains more than 20 individual parks and recreation areas. Two river corridors travel through the city. The city needs to improve the connections between these resources. An interconnected network of open space, or a greenway, throughout the city would expand the recreational and ecological benefits of the individual resources. Construction of the long-planned regional bike path would connect Barre City residents to recreational resources and natural areas outside the city, and bring more people from outlying areas into the city. Parks, recreation and open space projects may be viewed as a low priority given the city’s critical need to revitalize downtown and promote economic development, but they are essential to enhancing the city’s quality of life and making Barre City a place where people want to live and businesses want to locate.

4 Green Infrastructure. There is a network of open and green space throughout the city. The rivers and tributaries within the city are also a component of this network. Together, they form the green infrastructure needed to support life within the city. Maintaining and enhancing the components of this system, and their interconnections, is just as important to the city’s future as repairing and upgrading the streets, sidewalks, pipes and utility lines that form the city’s gray infrastructure.

goals & strategies

Barre City has established the following natural environment goals and strategies in order to achieve our vision for a healthy future:

1 For Barre City to protect and enhance water quality in the Stevens and Jail Branches of the Winooski River and their tributaries, and improve riverbank stability, shoreline habitat, aesthetic quality of the river corridors and public access to the rivers.

- A. Implement the recommendations of the 2009 Stevens Branch River Corridor Management Plan to maintain or restore the natural condition and function of the river corridors including:
 - A-1. Adopting a fluvial erosion hazard (FEH) zone and riparian setbacks to protect both life and property, and the natural function of the floodplain.
 - A-2. Encouraging landowners to plant or allow re-growth of appropriate vegetation along eroding river or stream banks and banks with no buffer.
 - A-3. Mitigating impacts of stormwater entering streams and rivers.
 - A-4. Replacing problematic culverts and bridges.
- B. Take a more proactive approach to improving the river corridors by:
 - B-1. Initiating discussions with affected landowners about a riverfront walkway in order to gain their input and support.
 - B-2. Seeking external funding to help cover the costs for design and implementation of improvements within the river corridors.

2 For Barre City to continue efforts to remediate polluted sites and encourage brownfield redevelopment, while maintaining high standards for protection of environmental quality, human health and community character for current and future land uses.

- A. Continue investigating partnerships with state, federal, or private entities to complete remediation of brownfield sites.

3 For Barre City to balance the desire for compact urban development with the need to preserve open space resources, and ensure that areas designated for new development, infill development or increased density also provide for the open space needs of current and future city residents.

- A. Encourage conservation development techniques, such as cluster residential developments, on the remaining large tracts of undeveloped land within the city, which would allow the landowners to develop their properties while preserving open space and its associated benefits.
- B. Explore funding options to support the purchase of land or conservation easements in order to preserve large open space areas within city.

4 For Barre City to become more resilient to the effects of flooding.

- A. Maintain eligibility for flood insurance, hazard mitigation, and disaster assistance by continuing to meet federal requirements for participation in the National Flood Insurance Program.
- B. Consider participation in the National Flood Insurance Program's Community Rating System, which would help guide the municipality in reducing damage from flooding events.
- C. Implement the recommendations of our 2012 Hazard Mitigation Plan.
- D. Implement the recommendations of the 2009 Stevens Branch River Corridor Management Plan to maintain or restore the natural condition and function of the river corridors.

next steps

Barre City should pursue the following actions in order to achieve our vision for a healthy future:

- 1** Enroll in the National Flood Insurance Program’s Community Rating System.

STATUS: In progress.

TIMING: 2013

PARTNERS: City Manager, City Planner, Fire Department, City Council

NOTES: The National Flood Insurance Program’s Community Rating System is a voluntary incentive program that recognizes and encourages community floodplain management activities that exceed the minimum federal requirements. As a result, flood insurance premium rates are discounted to reflect the reduced flood risk.
- 2** Revise the city’s land use regulations related to stream setbacks, riparian buffers, steep slopes, and other natural resource protection standards.

STATUS: No action taken to date.

TIMING: 2014

PARTNERS: City Planner, Planning Commission, City Council, City Attorney, Friends of the Winooski River

NOTES: These are discrete elements that could be incorporated into the regulations at any time and are not necessarily dependent on or intertwined with other revisions recommended in this plan.
- 3** Map and assess the underground streams.

STATUS: No action taken to date.

TIMING: 2015

PARTNERS: City Manager, City Planner, City Engineer, Central Vermont RPC

NOTES: This project was listed as a medium priority action in the city’s 2012 Hazard Mitigation Plan.
- 4** Install “trash racks” on Gunner Brook.

STATUS: No action taken to date.

TIMING: 2015

PARTNERS: City Manager, City Planner, City Engineer, Vermont ANR

NOTES: This project was listed as a medium priority action in the city’s 2012 Hazard Mitigation Plan. Trash racks are cage-like structures that are placed in water channels to catch floating materials and prevent the accumulations of debris that can cause flooding during heavy storms.
- 5** Develop and adopt a river management plan.

STATUS: No action taken to date.

TIMING: 2016

PARTNERS: City Planner, Planning Commission, Friends of the Winooski River

NOTES: This plan would build upon the Phase I and Phase II geomorphic assessments and Stevens Branch Corridor

Management Plan and more specifically address the specific, local challenges and opportunities presented by the river as it flows through our city.

6 Develop and adopt a citywide Open Space Plan.

STATUS: No action taken to date.

TIMING: 2016

PARTNERS: City Planner, Planning Commission, City Council

NOTES: This action could be coordinated with development of the Parks and Recreation Plan.

7 Study the feasibility of and options for establishing a greenway with a multi-use path along the Stevens Branch.

STATUS: No action taken to date.

TIMING: 2017

PARTNERS: City Planner, Planning Commission, Friends of the Winooski River

NOTES: This concept has been identified as an opportunity for the city since our first city plan was written in the 1960s.

benchmarks

Barre City should measure progress towards achieving our vision for a healthy future against the following benchmarks:

1 Average E.coli levels in the Stevens and Jail Branches of the Winooski River in Barre City. Land use and land cover largely determine the type and amount of contaminants entering our rivers and streams, and consequently, the health of all the downstream life – plants, animals, people – that rely on this water. Elevated E.coli levels are a direct indicator that water may not be safe for human consumption or contact. *Source: Friends of the Winooski Annual Water Quality Monitoring Reports*

In 2010: 283 mpn/100ml

Target for 2020: 77 mpn/100ml (This is the Vermont water quality standard that indicates water is safe for swimming.)

2 Air quality non-attainment days in Barre City. Air pollution has a direct connection to human health, and even relatively low concentrations of air pollutants have been related to a range of adverse health effects. Young children and elderly people often suffer more from the effects of air pollution. People with underlying health problems such as asthma, heart and lung disease can also experience greater adverse affects from air pollution.

In 2010: Unknown

Target for 2020: 0

3 Percentage of brownfields remediated. Brownfields pose a variety of health risks. They may be sites with physical health hazards, such as uncovered holes, unsafe structures, or sharp objects. Past industrial activities may have left behind chemical contamination or hazardous wastes. When people enter these properties there is a chance that they may be injured or exposed to containments. Brownfields pose a greater risk to children who are more likely to enter abandoned properties to explore and play, and who are more likely to have greater contact with

soil than adults. Cleaning-up and redeveloping brownfields removes hazards from the community.

In 2010: Unknown
Target for 2020: 80%

4 **Percentage of Repetitive Loss Structures flood-proofed or removed.** Flooding poses a variety of health risks. There is the immediate danger to life posed by high and/or fast-moving water. Water can also carry pollutants onto flooded property and into flooded buildings such as untreated sewage, petroleum products or industrial chemicals. Mold, an indoor air pollutant that poses serious health risks, will grow in flooded buildings if immediate and appropriate actions are not taken. *Source: FEMA*

In 2010: 8 listed structures
Target for 2020: 100%

planning for land use

Land use planning is at the core of our efforts to improve the health and well-being of Barre City. Land use policies shape the physical environment of a community, which in turn has direct and indirect effects on the health and well-being of our residents, economy and environment. The authority to plan and regulate land use and the built environment is one of the principal tools that a municipality can use to influence its future. To achieve our vision for a healthy future, Barre City needs to restore and reinforce the city's traditional land use pattern and set the stage for revitalization and growth.

The building blocks of Barre City's traditional land use pattern include the downtown business district, a series of industrial sites along the river and rail line, and walkable neighborhoods that extend outward from these activity centers. Barre City's traditional land use pattern is characterized by:

- A mix of uses in close proximity to each other bringing people together for a variety of activities – including work, living, recreation, business, shopping, entertainment, and civic engagement.

- A physical layout that has high-density core areas and decreasing densities as distance from the core areas increases.

- Natural and built features that define the community and establish an identity or sense of place.

- A strong public presence, such as greens or parks, civic buildings, and other public spaces.

- Multi-story buildings that maximize the use of vertical space while maintaining a human scale at street level and that are located close to the street.

- Buildings whose main entrance is oriented to the street, and principal buildings closer to the street than associated accessory buildings (such as garages).

- Limited amounts of land devoted to parking, especially as visible from the street, and on-street parking.

- A walkable environment in which a mix of uses are within a 5- or 10-minute walk of each other.

- Narrow, interconnected, side streets, and short blocks.

- Diversity in the size of buildings and lots.

Many of the recommended goals, strategies and action identified in this plan relate to reinforcing the city's traditional land use pattern through downtown revitalization, re-use of under-utilized industrial buildings, rehabilitation of homes, infill development, and new compatible development. This approach is consistent with the state's overall goal land use planning goal "to plan development so as to maintain the historic settlement pattern of compact village and urban centers separated by rural countryside."

key points

1 Traditional Development Pattern. Barre City features a development pattern typical of New England village and urban centers. With the arrival of the railroad in 1875, the granite industry boomed and in only a few decades a small settlement in the river valley had grown into the city that exists today. The network of streets, downtown business blocks, and residential neighborhoods were built so that people could live within walking distance of where they worked, went to school, shopped and socialized. Most of this traditional development pattern remains intact in Barre City, largely because the city saw little growth and development during the second half of the 20th century. Some of the historic downtown block buildings have been lost and replaced by single-story buildings or more automobile-oriented shops and plazas. There has been some residential growth, particularly on the western side of the city, which has a more suburban character than the older residential neighborhoods closer to downtown. But overall, much of the city would be recognizable to someone who lived here a century ago. Today there is recognition of the many benefits that the traditional development pattern provides and an interest in restoring and enhancing it as the city seeks to revitalize and grow in future decades.

2 City as a Regional Center. Barre City functions as a regional center in Central Vermont. Historically, it was a center of industry and commerce with substantially higher numbers of residents, businesses and jobs than the surrounding rural communities. Following construction of the interstate through the region in the 1960s, the outlying communities entered a period of growth while older urban centers, like Barre City, were largely stagnant. The city's role as a regional center changed with retail and other businesses locating on the easy-to-develop land near the interstate. The pendulum, however, is swinging back towards more compact, walkable urban centers, and as a result the city's role as a residential, economic and social center for the region is returning.

3 Downtown Revitalization. Barre City has been engaged in downtown revitalization since the 1980s, and those efforts are finally gaining the momentum needed to be successful and sustainable over the long term. The downtown business district and adjoining blocks are the core of our community, and a primary focus of this plan. There is now a widespread recognition that without a healthy downtown, the city will not be successful in attracting and retaining residents and businesses. Barre City has made considerable investments in downtown revitalization efforts in recent years, with plans for more improvements in the near future. The goal is for downtown to be fully occupied with successful businesses and more residents living in well-maintained, mixed-use, multi-story, higher-density buildings.

4 Industrial Sites. Barre City developed as the "Granite Capital of the World" with the stone that was quarried in the surrounding hills being brought down into the city to be cut, shaped, sculpted, polished and shipped in a series of granite plants located along the river and railroad. Most of these sites are still used for industrial and commercial purposes, but the uses have diversified beyond granite and many of the sites and buildings are not being fully utilized. Some of these sites should be considered for mixed-use redevelopment, while others may be best suited to remain primarily devoted to heavier commercial and industrial uses.

5 Residential Neighborhoods. Residential neighborhoods extend up the hillsides from downtown and the main corridors through the city. Many of the older neighborhoods are composed largely of modest, single-family homes, which provide some of the most affordable opportunities for homeownership in the region. Close to downtown, some of the neighborhoods have largely converted to rental housing and some are showing signs of distress or decline, as discussed in the housing chapter of this plan. More recent housing development further out from downtown is not well-integrated into the urban fabric and has a more suburban character. There is a recognized need to rebalance the city's housing stock and bring some higher-end housing back into the city. Given this diversity of residential issues, the city needs land use regulations that are more specifically tailored to each neighborhood.

6 Open Space and Undeveloped Land. Barre City owns a significant amount of open space, including more than 20 individual parks and recreation areas. In addition, there are more than 480 acres of privately-owned undeveloped land in the city. Some of this land is suitable for development, while some will likely remain undeveloped due to constraints like steep slopes.

7 Stream and River Corridors. Barre City grew up along the banks of the Stevens and Jail branches of the Winooski River. The valley floor provided relatively level land to build on and access to the water power needed to fuel industry and commerce. As a result, our city will always face the challenge of flooding and our land use plans will need to address mitigation of flood hazards and effective stormwater management.

issues & challenges

Barre City has identified the following challenges and issues related to how we plan and regulate land use that need to be addressed to achieve our vision for a healthy future:

1 Zoning Map and Districts. Barre City's zoning districts are too broad and general, and the zoning map does not follow property boundaries. This creates challenges to administering the regulations and works against city efforts to streamline the permitting of projects. The city's neighborhoods, downtown, commercial corridors and industrial sites need land use regulations that are better tailored to the specific development patterns and issues of the area.

2 Design Standards. Barre City's current land use regulations do not include the design standards needed to ensure that new development is compatible with traditional development patterns. This is of particular concern in downtown where existing regulations are inadequate to ensure that any new development will compliment and strengthen the built environment (multi-story buildings built to the sidewalk with storefronts at ground level).

3 New Uses for Old Buildings and Properties. Barre City has a substantial amount of historic industrial space - primarily former granite sheds - that is obsolete, vacant, under-utilized, and/or poorly maintained. These buildings can be modernized, renovated and re-fitted to be suitable for new uses and occupants. The city's land use regulations need to facilitate mixed-use redevelopment of these buildings and sites. Some of the city's industrial sites are brownfields that need to be cleaned-up before they can be redeveloped for new uses.

4 Residential Neighborhoods. Some of Barre City's residential neighborhoods are showing signs of distress and destabilization including increased rates of resident turnover, vacancy, foreclosure, property maintenance complaints and police calls.

5 Complete Streets. Barre City residents regularly identify improved walking and biking routes within the city and to neighboring communities as an important goal. Improving the walkability throughout the city is a central component of building a healthier future for Barre City. Despite the widespread recognition of and support for making the city more pedestrian- and bicyclist-friendly, it continues to be a challenge to focus on the needed improvements when there are a number of other issues that appear to be more urgent for the city to address.

strengths & opportunities

Barre City has already acted to improve how we plan and regulate land use, and there remain many strengths and opportunities we can build upon to continue those efforts as we strive to achieve our vision for a healthy future:

1 North Main Street Reconstruction. The reconstruction of North Main Street from Route 62 to the City Hall Park, completed in 2012, replaced all utilities, street lighting, sidewalks, completely reconstructed the road surface, revitalized the streetscape to improve the appearance of downtown and optimized the timing of the lights to facilitate traffic flow. The North Main Street Reconstruction Project replaced downtown sidewalks and redesigned crosswalks to improve pedestrian safety. The revitalized streetscape has greatly improved the appearance of our downtown.

2 City Place. Barre City used \$700,000 from a Neighborhood Stabilization Program Grant in 2009 to acquire and redevelop 219 North Main Street. The city also purchased the adjoining property at 9 Merchant Street. In 2011, the city razed the dilapidated structure located on the property and readied the site for redevelopment. A conceptual redevelopment plan was completed in 2012 and a developer was selected to construct, own and operate the building. Construction a 4-story, 78,000 square foot mixed-use office building, with retail space on the first floor, health-based businesses on the second floor, and 40,000 square feet of office space, capable of housing up to 320 workers, on the third and fourth floors is currently underway. Most of the space in the building has already been leased. This building opened in March 2014.

3 Merchants Row. A master plan was prepared for Merchants Row in 2010 in anticipation of major improvements being made once the North Main Street Reconstruction project was completed. Efforts to implement that plan are currently underway. One of the key elements of that plan is the creation of a continuous sidewalk along the rear entrance of the North Main Street buildings. The plan also includes a recreational path paralleling the railroad tracks, which would be one of the segments of the much desired Central Vermont Bike Path connecting Barre City and Montpelier.

4 North Main to Summer Street. A master plan was prepared for the blocks between North Main Street and Summer Street. That plan calls for primarily new residential development on Summer, Merchant and Elm Streets that replicates historic patterns and infill development along street frontages with connected ‘parking courts’ in the center of the blocks.

5 TIF District. Barre City sought and received state approval for a Tax Increment Financing (TIF) district in 2012. The downtown TIF district will allow the city to capture the increased property tax revenues generated through revitalization in our downtown and use those dollars to fund the improvements need to support redevelopment. It is anticipated that many of the public improvements recommended in the City Place, Merchants Row, and North Main to Summer Street plans will be completed with TIF money.

6 Downtown Designation. Barre City has a state Designated Downtown, which provides benefits to businesses and property owners within the district such as state income tax credits for building improvements.

7 Streamlined Permitting. Barre City has implemented a “while you wait” permitting system. The city has a zoning administrator available to assist applicants with navigating the regulatory and permitting system. Barre City has formed a Development Review Board (DRB), eliminating the need for some projects to be reviewed by two separate boards, and more projects can be approved administratively without requiring a DRB hearing.

8 Rental Registration and Inspection Program. Barre City has adopted an ordinance that requires annual registration of all rental units and establishes minimum health and safety standards for rental housing. Recent changes to the program with the Fire Department taking over responsibility for conducting inspections from the Building Department has increased staff capacity for the program and should bolster city efforts to improve the quality of our housing stock.

goals & strategies

Barre City has established the following land use goals and strategies in order to achieve our vision for a healthy future:

1 For Barre City to grow and flourish as a compact, walkable, mixed-use urban center that can attract and retain residents and businesses.

- A. Implement the city's land use strategies as set forth in this plan.
 - A-1. Implement this plan's land use policies that call for development of dense, attractive, mixed-use downtown surrounded by walkable neighborhoods.
 - A-2. Establish dimensional and density standards within the city's zoning regulations that reflect the traditional development patterns of New England urban centers.
 - A-3. Adopt the ordinances needed to address issues with the appearance and maintenance of buildings and property in the city, particularly within the downtown business district.
 - A-4. Continue to plan for and construct the improvements needed to make the city more walkable and pedestrian-friendly, particularly within the downtown business district.
 - A-5. Revise the city's zoning regulations to allow small-scale, neighborhood-oriented shops and services to locate within walking distance of residential neighborhoods.
 - A-6. Encourage construction of new housing downtown, primarily on the upper floors of new and existing mixed-use buildings.
 - A-7. Ensure that infill development will be harmonious with the scale, density and character of the surrounding neighborhood.
 - A-8. Update the energy efficiency and conservation standards in the city's land use regulations, and related codes and ordinances, to incorporate the 'energy smart' provisions recommended in the VECAN Energy Planning and Implementation Guidebook for Vermont Municipalities.
 - A-9. Revise the city's land use regulations related to stream setbacks and riparian buffers.
- B. Revise the city's zoning regulations to incorporate the neighborhood-level recommendations made in the Land Use Chapter of this plan.
 - B-1. Residential Zoning. The city's current zoning includes two residential districts, Planned Residential and R-10 Residential. The Planned Residential district allows multi-family housing to a density of one unit per 2,000 acres of lot size as a permitted use. This is a much higher density of housing than presently exists in many parts of the district. The R-10 district allows for up to four dwelling unit per acre. Adjustments to these zoning densities is recommended in most residential districts are recommended by neighborhood in the Land Use Chapter of this plan.
 - B-2. Commercial Zoning. The city's current commercial district lacks adequate standards to ensure that new development will be compatible with planned neighborhood character and will make positive contributions to our streetscapes. Several areas that are currently zoned commercial are not suitable for the uses allowed in the district. Recommended changes by neighborhood are identified in the Land Use Chapter of this plan.
- C. Continue to assist building and business owners with navigating the city's permit process, and continue efforts to streamline city regulations and development review procedures.
- D. Promote investment in the city's vacant, obsolete or under-utilized buildings and properties.
 - D-1. Identify locations suitable for mixed-use redevelopment and revise the city's land use regulations as needed to facilitate such redevelopment.
 - D-2. Encourage the maintenance of the city's existing housing stock and the rehabilitation of deteriorating or substandard housing.
 - D-3. Continue efforts to remediate polluted sites and encourage brownfield redevelopment through partnerships with state, federal and private entities.
- E. Adopt a 'Complete Streets' policy and undertake projects to make Barre City a more pedestrian- and bicyclist-friendly community.

- E-1. Complete construction of the planned bike path through the city.
 - E-2. Adopt road standards that would require new public or private streets to be 'complete' and incorporate 'complete streets' elements into street reconstruction and repair projects to the greatest extent feasible.
-

next steps

Barre City should pursue the following actions in order to achieve our vision for a healthy future:

1 Complete planning for and implement the City Place, Merchants Row and North Main to Summer Street projects.

STATUS: Plans have been completed for each of these projects.

TIMING: Construction began on City Place in 2013 and should be completed in 2014. Merchants Row and North Main to Summer Street projects should be completed or underway by 2017.

PARTNERS: City Planner, Planning Commission, City Manager, City Council, Barre Partnership

NOTES:

2 Develop and adopt a form-based code for downtown.

STATUS: City has received a 2013 municipal planning grant to draft form-based regulations for downtown.

TIMING: Draft regulations prepared by spring 2014

PARTNERS: City Planner, Planning Commission, Barre Partnership, City Council

NOTES: Form-based regulations are an alternative to conventional zoning standards. They focus on the relationship between building facades and the street, the form and mass of buildings in relation to one another, and the scale and types of streets and blocks.

3 Update and re-adopt zoning map.

STATUS: No action to date.

TIMING: 2015

PARTNERS: City Planner, Planning Commission, City Council

NOTES: Specific zoning district changes are discussed above and in the Land Use section of the Community Profile.

benchmarks

Barre City should measure progress towards achieving our vision for a healthy future against the following benchmarks:

1 **Vacancy rate for commercial space in the downtown business district.** Vacant downtown buildings are highly visible evidence of the poor health of a local economy. Extremely low vacancy rates suggest high demand, which will likely result in rising rents and sales prices as well as an increase in new construction. Conversely, high vacancy rates result in declining revenues from downtown buildings and discourage investment and new construction. Barre City's downtown has endured a long period of neglect and dis-investment that appears to be

reversing. Declining vacancy rates is a direct measure of the success of our revitalization efforts, and the health and well-being of our community. Source: Barre Partnership and City Assessor

In 2010:	15%
Target for 2020:	5%

2 **Percentage of rental units in Barre City inspected and brought up to code each year.** Homes that are poorly designed, constructed or maintained can make residents sick. Homes with inadequate heating or ventilation can lead to the growth of mold and dust mites, resulting in asthma and respiratory allergies. Older homes may have lead-based paint that can cause lead poisoning, particularly in young children. The likelihood of physical hazards in a home is related to housing affordability. *Source: Barre City Fire Department*

In 2010:	unknown
Target for 2020:	33%

3 **Percentage of city housing located within 1/4 mile of a transit stop.** Proximity to public transit helps to determine travel choice. Studies have shown that for every quarter mile increase in distance to transit, the likelihood of someone using the service falls by 16%. Residents in communities with access to good public transportation systems tend to drive 20% to 40% fewer annual miles than they would if they lived in a more automobile-oriented community. Source: Barre City GIS

In 2010:	40%
Target for 2020:	60%

4 **Percentage of city housing located within 1/4 mile of a city park.** Parks provide measurable health benefits, from providing direct contact with nature and a cleaner environment, to opportunities for physical activity and social interaction. Source: Barre City GIS

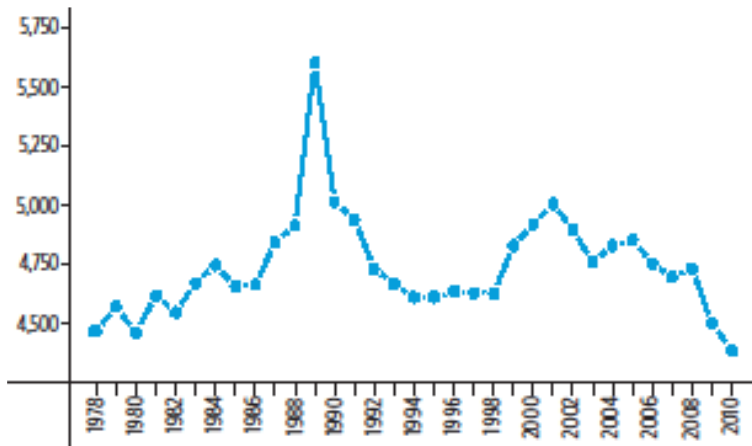
In 2010:	70%
Target for 2020:	90%

ECONOMIC DEVELOPMENT

local economy

Economic Activity. In 2010, the Vermont Department of Labor reported that there were approximately 4,400 jobs and 420 employers in the city. This figure includes only those workers eligible for unemployment insurance; employment categories such as the self-employed and business owners are not included. If all employment in the city were to be counted, the figure would likely be more than 6,500 jobs.¹ The number of jobs counted by the Department of Labor each year has ranged between 4,000 and 5,000 for the past 20 years, since reaching a one-year peak of 5,600 in 1989.

Figure 1. Employment in Barre City 1978-2010
Source: Vermont Department of Labor



While job growth has been flat in Barre City, recent decades have seen significant job growth in surrounding towns. Berlin has seen the greatest growth in employment, surpassing Barre City in total jobs in 2002. In 1980, approximately 25% of Washington County's jobs were located in the city, a figure that has now dropped below 20%.

During the past 20 years, Barre City has experienced growth in the following sectors:

- Professional and business services.
- Education and health services.
- Leisure and hospitality.
- Transportation.
- State government.

These gains, however, have been offset by losses in the manufacturing, construction, retail trade and wholesale trade sectors. In 1989, manufacturing accounted for nearly 25% of the jobs in the city and more

¹ Estimate based on a comparison of U.S. Bureau of Economic Analysis statistics for Washington County to the Vermont Department of Labor statistics.

than 30% of earnings; in 2007, the sector represented only 11% of jobs and 14% of earnings. Barre City should focus economic development efforts on the better performing sectors to create a healthier economy for the city in the 21st century.

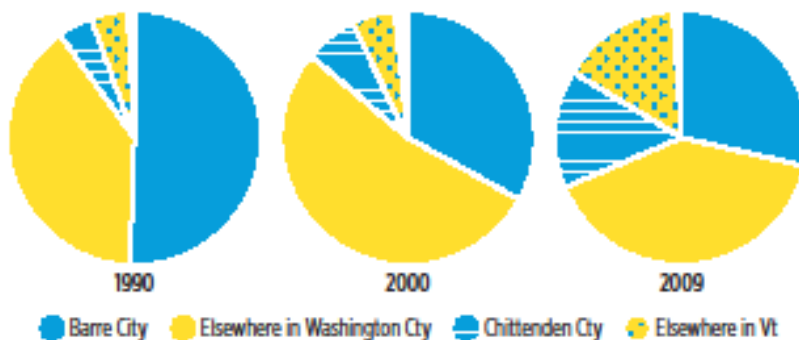
Barre City businesses had gross receipts (revenues) of approximately \$606 million in 2010 according to the Vermont Department of Taxes, the eighth highest amount among Vermont municipalities. Barre City ranked tenth in total retail sales during 2010 with receipts of nearly \$102 million. Tax receipts for Barre City businesses experienced neither substantial increases or decreases during the 2000s.

Labor Force. In 2010, the Vermont Department of Labor counted the city’s labor force at 4,910 people with an unemployment rate of 10.9%. The size of the city’s labor force has remained relatively stable during the past 20 years. Barre City’s unemployment rate has historically been higher than state and regional averages. Employment has a tendency to suffer sharper declines during economic downturns and rebound more slowly during economic recoveries within the city as compared to the region or state as a whole.

Historically, a majority of employed Barre residents worked within the city. In recent years, that percentage has declined so that currently less than one-third of employed residents are working within the city. With little growth in employment opportunities within the city, more residents are commuting to other communities in Washington County and further afield. Living in close proximity to one’s job has numerous benefits for workers, their families and the broader community – all stemming from a shorter commute. The average commute in Barre City remains low by Vermont standards, but has been increasing. Growth in the number of jobs in the city will help attract new residents, including a growing number of people seeking a lifestyle less dependent on driving.

Figure 2. Place of Employment for Barre City Residents

Source: US Census Bureau



Commercial and Industrial Property. According to the 2009 Grand List, nearly one-quarter of the city’s land is developed for commercial or industrial use (approximately 520 acres). Commercial and industrial property accounts for approximately 35% of the city’s property tax base. While there are limited opportunities for new “greenfield” commercial or industrial development within the city, there are ample opportunities for: redevelopment of vacant “brownfield” sites; rehabilitation and adaptive re-use of the existing building stock; and full use and occupancy of under-utilized properties.

The limited availability and cost of commercial and office space in nearby Montpelier has led to a realization among some business owners that there is an ample supply of space available at significantly less cost in Barre City, only minutes away from downtown Montpelier.

A revitalization of commercial and industrial property would serve not only to bring jobs into the city, but would benefit homeowners by increasing the value of commercial and industrial property thus reducing the

percentage of the property tax burden borne by residential property owners.

Figure 3. Commercial and Industrial Property Map

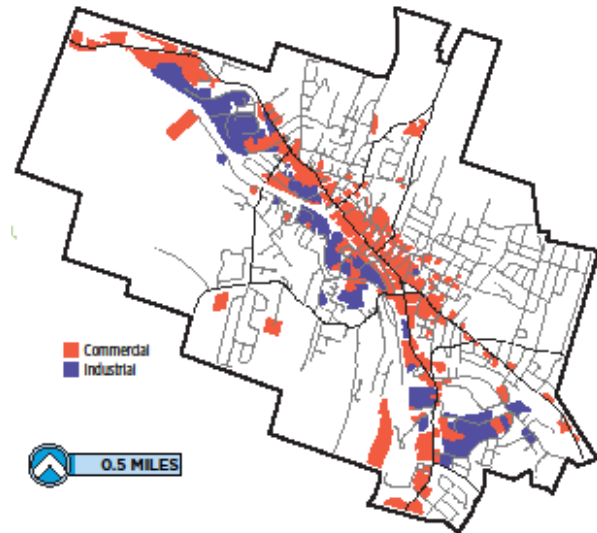


Figure 4. Employees, Employers and Wages 1978-2010
Source: Vermont Department of Labor¹

	Employees		Employers		Average Wages	
	Barre City	%LMA	Barre City	%LMA	Barre City	%LMA
1978	4,466	24.6%	429	32.2%	32,700	98.2%
1980	4,460	23.8%	442	31.2%	29,800	99.4%
1982	4,547	23.3%	456	29.3%	28,900	96.2%
1984	4,746	23.5%	444	29.5%	30,400	95.8%
1986	4,663	21.8%	499	28.8%	31,100	96.1%
1988	4,914	21.0%	496	28.9%	31,800	94.7%
1990	5,015	22.4%	524	29.6%	30,600	90.9%
1992	4,729	21.8%	517	28.0%	31,200	91.8%
1994	4,610	20.1%	482	26.1%	31,000	92.5%
1996	4,636	19.7%	464	25.3%	30,000	90.3%
1998	4,625	19.4%	453	24.2%	31,900	92.8%
2000	4,921	18.9%	440	22.9%	32,100	90.4%
2001	5,007	19.1%	437	22.8%	33,000	90.5%
2002	4,896	19.0%	430	23.1%	34,000	91.6%
2003	4,759	18.5%	433	23.0%	34,300	90.8%
2004	4,828	18.9%	442	23.0%	34,900	90.8%
2005	4,852	18.9%	425	22.0%	34,400	89.9%
2006	4,753	18.7%	414	21.4%	34,600	90.5%
2007	4,696	18.5%	419	21.6%	35,600	91.3%
2008	4,732	18.5%	429	21.7%	33,900	84.9%
2009	4,498	18.0%	429	22.0%	36,500	90.2%
2010	4,385	17.7%	422	22.1%	32,600	91.9%

Figure 5. Labor Force and Unemployment Rate 1990-2010
Source: Vermont Department of Labor²

	Labor Force		Unemployment Rate		
	Barre City	%LMA	Barre City	LMA	Vermont
1990	4,950	19.0%	8.5%	5.5%	4.9%
1991	5,040	19.3%	11.7%	7.3%	6.6%
1992	4,940	19.1%	11.2%	7.1%	6.4%
1993	4,980	18.9%	8.9%	5.7%	5.3%
1994	4,960	18.8%	8.3%	5.0%	4.6%
1995	4,810	18.0%	7.7%	4.9%	4.3%
1996	4,790	17.9%	7.9%	5.1%	4.4%
1997	4,840	17.8%	8.2%	5.0%	4.0%
1998	4,770	17.6%	6.0%	3.9%	3.1%
1999	4,840	17.5%	5.5%	3.3%	2.9%
2000	4,810	17.1%	4.0%	2.7%	2.7%
2001	4,830	17.1%	5.6%	3.5%	3.3%
2002	4,910	17.2%	7.6%	4.6%	4.0%
2003	4,930	17.1%	8.2%	4.9%	4.5%
2004	4,810	16.9%	6.9%	4.1%	3.7%
2005	4,720	16.6%	5.7%	3.9%	3.5%
2006	4,690	16.4%	5.4%	4.2%	3.7%
2007	4,650	16.3%	5.6%	4.4%	3.9%
2008	4,710	16.3%	6.5%	4.9%	4.5%
2009	4,940	16.8%	11.4%	7.0%	6.9%
2010	4,910	16.8%	10.4%	6.4%	6.2%

Figure 4. Employees, Employers and Wages 1978-2010
Source: Vermont Department of Labor¹

	Employees		Employers		Average Wages	
	Barre City	%LMA	Barre City	%LMA	Barre City	%LMA
1978	4,466	24.6%	429	32.2%	32,700	98.2%
1980	4,460	23.8%	442	31.2%	29,800	99.4%
1982	4,547	23.3%	456	29.3%	28,900	96.2%
1984	4,746	23.5%	444	29.5%	30,400	95.8%
1986	4,663	21.8%	499	28.8%	31,100	96.1%
1988	4,914	21.0%	496	28.9%	31,800	94.7%
1990	5,015	22.4%	524	29.6%	30,600	90.9%
1992	4,729	21.8%	517	28.0%	31,200	98.8%
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1999	4,840	17.5%	5.5%	3.3%	2.9%
2000	4,810	17.7%	4.0%	2.7%	2.7%
2001	4,830	17.7%	5.6%	3.5%	3.3%
2002	4,900	17.2%	7.6%	4.6%	4.0%
2003	4,930	17.7%	8.2%	4.9%	4.5%
2004	4,810	16.9%	6.9%	4.7%	3.7%
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2006	4,690	16.4%	5.4%	4.2%	3.7%
2007	4,650	16.3%	5.6%	4.4%	3.9%
2008	4,710	16.3%	6.5%	4.9%	4.5%
2009	4,940	16.8%	11.4%	7.0%	6.9%
2010	4,900	16.8%	10.4%	6.4%	6.2%

downtown revitalization

Overview. Barre City’s downtown business district has served as a commercial center for Central Vermont throughout our city’s history. Beginning in the 1960s, the downtown’s role as a commercial center began to decline as new retail development occurred outside the city around the interstate exits and along highway corridors. Many downtown retailers were unable to adapt to the changes in how and where people shopped, resulting in a cycle of downtown business closures, vacancy and disinvestment.

By the 1980s, the remaining merchants and community leaders recognized that it would take a coordinated effort to break this cycle and turn our downtown around. A non-profit main street revitalization organization was formed in the 1980s. This organization evolved into the Barre Partnership in 1997 and became a designated downtown organization under Vermont’s Downtown Program.

More than two decades later, business, government and civic leaders have completed many downtown projects and improvements. The largest project to date, a complete reconstruction of North Main Street, was completed in 2013. The public infrastructure is now in place to fully support downtown revitalization efforts. This major public investment is evidence of the city’s commitment to the downtown and will result an attractive, functional and quality place that the private sector will also see the benefit of investing in.

Improvements to the public spaces and infrastructure downtown are critical to the success of revitalization efforts; if the city is not willing to invest in improving its downtown, why should we expect the private sector to do so. And now that the city has made needed improvements, we are calling upon the downtown property

owners to do their part and reinvest in our downtown. This strategy is already producing results. A major new building, City Place, is under construction and the historic Blanchard Block is being renovated. While three downtown businesses closed between 2011 and 2012, eight new businesses opened on North Main Street and one expanded.

Downtown's Future Role. As part of revitalization efforts, there have been several studies done related to the future role of our downtown and the types of businesses that it will have. As part of those planning processes, residents and business owners have been asked to contribute their ideas and preferences for the downtown's future. Opportunities that have been identified as desirable for downtown Barre City include:

Maintaining core anchor businesses that provide basic goods and services to city residents (grocery, pharmacy, hardware, banking, etc.).

Attracting more businesses in the professional and business services sectors, which have been expanding in the city in recent years, specifically targeting the type of businesses that cannot afford to start-up or expand in nearby Montpelier given that city's higher rents and lesser availability of space.

Building upon the community's rich history and industrial arts heritage to become an arts and cultural center (ex. theater, museum, artist studios, galleries, etc.).

Providing a diversity of quality restaurants that would both serve those working downtown (places for coffee, lunch or to stop by after work) and that would serve to bring people into downtown in the evening for dinner.

While the retail environment has changed considerably in recent decades, it is still important for key anchor stores providing basic goods to residents, such as grocery, pharmacy and hardware, to remain located downtown. Increasing the number of people working and living downtown is needed to help support Main Street businesses like restaurants. An attractive and well-maintained downtown should entice more through-travelers to stop in Barre City, further increasing the customer traffic needed to support Main Street businesses.

Future Public Improvements. With the North Main Street Reconstruction Project completed and City Place under construction, the city has turned its attention to the future revitalization of Merchants Row and then for the area between North Main Street and Summer Street. As the primary landowner, the city is leading by example through its actions and plans to re-invest in our downtown.

granite industry

Granite has been at the foundation of our city and regional economy for more than a century. By 1890, Barre City was the "granite center of the world" and the workers and artisans that had emigrated from European stone centers had built a vibrant industry and city. The 1900s saw the granite industry transformed by mechanization with associated reductions in the workforce. Even in the mid-1900s, more than 3,000 people were employed in the quarrying of Barre Gray granite in hills above the city and in the cutting, carving and finishing of the stone in the city's granite sheds for use in monuments, memorials, public buildings and more.

In recent decades, the industry has been struggling to compete in a global economy, where stone can be imported from China and elsewhere at less than the cost of local production. Despite an ample supply of stone, only one quarry remains in operation currently and our stone cutting shops are now often working on imported, rather than local, stone. Barre's granite industry is trying to find its place in the global market, and while it cannot compete on price, it can still offer its highly skilled craftsmanship and a higher quality stone than most overseas producers.

Barre's granite industry is working to expand beyond the memorials and monuments that have traditionally been its primary product. Local stone shops are now producing countertops and other building materials, for example. Looking forward, the energy-driven cost of transportation and a movement towards sustainable building practices (including use of local materials) could also benefit the industry and provide an opportunity to pass the community's stone-working heritage on to future generations.

While granite will likely remain an important part of our community, it is unlikely that it will ever again be the primary engine of the regional economy. A diversified economy that is not dependent on the success of a single industry is not only a necessity for our city, but will create a healthier and more stable local economy.

The contraction of the granite industry has left a substantial amount of vacant, obsolete or under-utilized land and buildings in the city. While clearly a challenge, these sites and buildings also present an opportunity for new uses and revitalization. The recent renovation of Metro Way points to the potential that exists to adapt former granite sheds to house not only industry, but commercial, service and residential uses as well.

housing stock

There are approximately 4,500 housing units in Barre City. The number of housing units has continued to increase slowly in recent decades, despite the city's decline in total population due to the reduction in household size (fewer people per home). The following is a brief overview of the characteristics of Barre City's housing stock:

Just about half of the city's dwelling units are detached, single-family homes. The average single-family residential lot in the city is approximately a third of an acre. The median assessment for a detached, single-family home was \$130,000 in 2010.

There are more renters than homeowners living in Barre City. The proportion of rental housing to owner-occupied housing has remained fairly stable in recent decades at roughly 60-40.

Approximately 10% of rental units are located on the same lot as the landlord's home. About half of the properties with two dwelling units and a quarter of those with three dwelling units are owner-occupied. It is assumed that rental properties with a resident landlord are less likely to have serious maintenance problems. This assumption should be verified as further data is collected under the city's rental inspection program. Increasing the number of owner-occupied rentals is considered to be desirable and a means of increasing the overall quality of rental properties while also improving the affordability of housing for both owners and renters.

The 2010 Census counted 330 vacant housing units in Barre City, which was approximately 100 more than found in 2000, making the city's overall vacancy rate 7.3%. A vacancy rate of around 5% is considered ideal for the real estate market. In 2010, around 180 of the vacant housing units in Barre City were for rent, 60 were for sale, and 15 had been rented or sold but not yet occupied. The reasons why around 75 vacant homes were not occupied or being marketed for sale or rent are unknown, but these units should be assessed to determine whether they are a potential hazard for their neighborhoods.

affordable and special needs housing

Affordable Housing Stock. The income level of city households and the characteristics of the city's housing stock are interdependent. Barre City has traditionally been a 'blue collar' community with a median income below regional or state averages. Much of the city's historic housing stock is composed of modest, single-family homes on small lots – what would now be described as workforce housing. Along the main corridors in and out of the city and on the streets close to downtown, many single-family homes have been converted to multi-unit rentals. Barre City also hosts a substantial share of the subsidized, elderly and other special needs housing constructed in the region in recent decades.

These factors have combined to make Barre City a major provider of affordable housing in Central Vermont. Forty-one percent of all the subsidized apartments in Washington County are located in Barre City (approximately 500 units) and the subsidized units account for 12% of all housing in the city (the 5th highest percentage of all Vermont municipalities).

Affordable Housing Costs. The state's definition of affordable housing is based on a household earning 80% of the county's median family income, which includes nearly 80% of Barre City residents. In Washington County in 2010, any housing that a household earning \$54,080 could own or rent without spending more

than 30% of their monthly income on housing costs would be considered affordable housing under the state's definition (equates to a monthly housing cost of up to \$1,350). Housing costs for renters include rent and utilities; housing costs for homeowners include principal on mortgage payments, interest, property taxes, and insurance. According to the Census Bureau in Barre City in 2010, approximately half of all renters and homeowners with a mortgage, along with nearly 30% of homeowners without a mortgage, were spending more than 30% of their income on housing – a level that is typically considered unaffordable.

While homes in Barre City are more affordable as compared to homes in nearby municipalities, the city experienced a rapid inflation in housing prices during the mid-2000s similar to most communities in Vermont. Between 2000 and 2007, the average sale price for a primary residence in Barre City increased by 50% above the rate of inflation. While house prices have declined since their peak in 2007, it is still more expensive to buy a home in Barre City today than it was in the early-2000s. The median sale price of a home in 2010 was nearly \$40,000 higher than it was in 2000 even after adjusting for inflation.

Between 2009 and spring 2012, there were 130 fair market sales of primary residences in Barre City and the median sale price was \$130,500. Approximately three-quarters of both home sales and home assessments were in the \$100,000 to \$200,000 range that would be affordable to households with an annual income in the \$30,000 to \$60,000 range.

In the spring of 2012, most of the market-rate apartments being advertised for rent in Barre City were one-bedroom units with a monthly rent ranging between \$700 and \$900; most did not include heat, but did include water, sewer, trash and snow removal. These apartments would be affordable for households with an annual income of \$30,000 or more. There were a small number of apartments being advertised for rents between \$550 and \$700, as well as some larger units with rents of \$1,000 or more.

Based on the state's definition of affordability and housing costs in Barre City, we know that:

30% of the state income tax returns filed by Barre City residents in 2010 reported an adjusted gross income (AGI) of less than \$15,000. Individuals and households in this income group would likely not be able to afford market rate housing (either to rent or own) without spending more than 30% of their income on housing.

25% tax filers reported an AGI of \$15,000 to less than \$30,000. Residents in this income group are more likely to be able to find affordable, market-rate rental housing in Barre City, but are still unlikely to be able to purchase a home.

30% of tax filers reported an AGI of \$30,000 to less than \$60,000. Residents in this income group should be able to find affordable, market-rate rental housing and may be able to purchase a home in Barre City.

15% of tax filers reporting an AGI of \$60,000 or more should be able to affordably rent or purchase a home in Barre City.

Subsidized and Special Needs Housing. There are nearly 500 subsidized rental units in Barre City, which represents about 41% of all subsidized rentals in Washington County and more than 20% of all rental housing in the city. Many of these units are owned and managed by Barre Housing Authority, which was established in 1964 to provide safe, decent and affordable housing for low-income residents, elders and people with disabilities. Barre Housing Authority provides affordable housing in four high-rise buildings in the city (Green Acres, North Barre Manor, Tilden House, Washington Apartments) as well as the low-rise Jefferson Apartments. The Barre Housing Authority has a 22-person staff and is governed by a volunteer Board of Commissioners appointed by the city mayor. Their funding comes primarily from the federal Department of Housing and Urban Development (HUD).

Inadequate funding has resulted in programs not being able to meet the housing needs for residents of limited means or with disabilities, the elderly or homeless, or other groups with special needs both in Barre City and around the region and state. There are waiting lists for subsidized housing units in Barre City. The state and federal government provide most of the funding for special needs housing, and those dollars are becoming increasingly scarce. Inadequate funding is the primary challenge housing organizations face as they work to secure shelter for all city residents. There is also a need for more community education and awareness to reduce community opposition to special needs housing projects.

Housing Services and Programs. The city and several partner organizations are available to assist current or potential residents with a variety of housing issues in Barre City.

The Central Vermont Community Land Trust offers programs dedicated to expanding homeownership opportunities for people of all income levels in the region from their NeighborWorks HomeOwnership Center in Barre City. City residents have access to homebuyer education workshops, pre-purchase credit and budget counseling, guidance on affordable mortgage financial products, home maintenance education, financial management education, assistance with home rehabilitation planning, and delinquency consultation services at the center. Buyers in Barre City may be eligible for the Homeland Grant Program, which provides up to \$40,000 towards the purchase price of a home. Participating buyers sign a covenant in which they agree to limit the amount they can sell the property for in the future. At the end of 2011, there were 36 homes in Barre City that had been purchased through this program and will remain perpetually affordable. CVCLT operates revolving loan funds that can be used to provide down payment assistance for income-qualified borrowers or to finance home improvements to correct health and safety issues, create handicapped accessibility, and make improvements that will conserve energy.

Central Vermont Community Action Council provides energy conservation and weatherization modifications to homes and apartments. These are available at no cost to residents who meet income eligibility guidelines regardless of whether the home is rented or owned.

USDA's Rural Development program provides direct loans to low-income homebuyers who do not qualify for conventional financing. Loan rates are subsidized based upon total household income. Rural Development also offers low-interest loans and grants to very-low income families and individuals who own a home in need of repair.

Barre City has a rental housing inspection program to establish and maintain a minimum housing quality level that has been operating since 2004. In 2012, the Barre City Fire Department took over responsibility for the inspection program from the Building Department in order to increase staff capacity for this program. It is hoped that greater staffing for the program will allow the city to inspect each rental unit every three years and respond to complaints. The city also has a database to track inspections and violations. The first three-year cycle of inspections by the Fire Department is now underway. Most inspections have resulted in identification of one or more violation that need to be addressed and most have been resolved in a timely manner. Regular analysis of this data should be completed to assess the program's effectiveness at increasing the quality of the city's rental housing and to identify any patterns or issues that the city should focus on in future years.

The Vermont Housing Conservation Board has a Lead-Based Paint Hazard Reduction Program that provides financial and technical assistance to income-eligible landlords and homeowners to eliminate lead-based paint hazards.

housing needs

Housing Choices. Barre City must be an attractive place for people of all ages across economic and social groups. To meet the needs of today's residents and to attract future residents, diverse housing choices need to be available that reflect the lifestyles and needs of many different demographics. Providing a mixture of housing types results in an approach that is market-sensitive and flexible. Communities with a variety of housing types are more likely to retain residents even as their lifestyles change.

Barre City's housing stock is largely composed of detached homes including single-family homes, duplexes, and larger homes that have been split up into three or more units. There are detached, single-family homes at a range of price points, although there are more homes available in the low- to mid-range than on the high end. There is a large supply of affordable rental housing, but little higher-cost/higher quality apartments. There are fewer choices for households, such as singles or older couples, who might want a smaller home with minimal maintenance requirements. Some of these segments of the housing market could be met through new housing in the upper floors of downtown buildings. Some of the remaining open land in the outlying portions of the city may be suitable for additional townhouse style development.

Housing and Neighborhood Quality. Homes and neighborhoods have a lifecycle and require periodic improvements and ongoing maintenance as they age. With that investment, historic homes and neighborhoods can continue to offer residents many benefits and provide a very desirable quality of life. However, if not adequately maintained and upgraded, older homes and neighborhoods can slip into decline. This downward cycle can be quickly reversed in its early phases and becomes significantly more costly and difficult to turn around over time.

Investment in the city's homes and neighborhoods can have significant direct and indirect benefits to individual residents, the community as a whole, and to city government. Private investment in home improvements and public investment in community infrastructure and facilities can help:

- Improve a neighborhood's 'curb appeal' resulting in increased home values and residents' pride in their property and neighborhood.

- Preserve affordability through reduced energy costs.

- Reduce the dissatisfaction that could lead to residents moving out of a neighborhood and increasing the neighborhood's ability to attract new residents.

- Generate additional employment opportunities and business revenues.

- Stabilize assessments and taxes.

- Reduce police, fire and code enforcement calls as residents take better care of and pride in their properties and neighborhoods.

The city's recent efforts to address property maintenance issues are intended to provide a foundation for neighborhood improvement and private investment in the city's housing stock. Homeowners or landlords considering whether to spend money improving their property want assurance that their property values will not be harmed by the failure of a neighbor to perform adequate maintenance. The city's ongoing investment in the maintenance, upgrading and reconstruction of public infrastructure – largely focused downtown and in the older neighborhoods nearby – is also intended to provide a foundation for neighborhood improvement.

Regional Housing Distribution. In recognition that housing is a regional issue, the Central Vermont Regional Planning Commission adopted a Housing Distribution Plan as part of its Regional Plan in 2008 to encourage the development of more meaningful and practical local housing plans and to promote the sustainable and efficient distribution of housing region-wide. CVRPC formulated the Distribution Plan with the aim of ensuring that all municipalities continue to contribute fairly to meeting the region's total housing need, and

balancing the burdens and benefits of providing housing among Central Vermont communities.

Another goal of the Distribution Plan was to curtail sprawl and inefficient patterns of growth in Central Vermont. Therefore, regional centers like Barre City (where housing can be built in proximity to jobs, services and transportation networks and can be served by existing infrastructure) are expected to provide a greater share of the region's future housing than outlying rural communities.

CVRPC has specifically asked municipalities to include a detailed map identifying the location and number of housing units created since municipality last updated its plan, and a map showing preferred locations for 80% of their housing allocation consistent with current or proposed zoning. Those maps are shown on pages 3-12 and 3-13.

The Distribution Plan allocates 476 new housing units to Barre City to be built between 2010 and 2020. Residential growth at an average rate of nearly 50 new units per year would be significantly greater than the increase in housing that has occurred in recent years (an average of 3 units per year during the 2000s) and would be similar to growth rates last experienced during the 1970s. While the city is seeking to encourage growth in our population and housing stock, it should be noted that the Distribution Plan was developed at the peak of a housing boom and that the subsequent recession has reduced the regional demand for new housing.

CVRPC recognizes that conditions have changed since adoption of the Distribution Plan and it is not their intent that the allocation be interpreted as a quota or target that must be met for this plan and the city's planning processes to be regionally approved. Instead, CVRPC wants municipalities to be more cognizant of where housing growth is occurring and be more proactive in planning where it should occur in the future.

Barre City's first response to the requirements of the Distribution Plan in the 2010 City Plan focused on assessing the availability and suitability of undeveloped land for residential development, and on determining whether there were zoning or other factors within city control limiting potential for residential development. While some minor modifications to city regulations and policies were recommended at that time and then later implemented, it was apparent that market forces were driving housing development in Barre City and that zoning, infrastructure, or other factors within city control were not creating any significant roadblocks. This finding remains valid and no further changes to city regulations or policies are needed to facilitate housing development.

In the ensuing years, Barre City has been actively engaged with a number of community planning and revitalization efforts. This ongoing work has led to recognition that more 'downtown' housing would have multiple benefits for the city. It has also become apparent that the opportunities for creation of new single-family neighborhoods in Barre City are limited and that future growth will be primarily generated from other types of housing development. We are also actively engaged in efforts to improve the quality of our housing stock, particularly affordable rental housing, so that buildings are not allowed to deteriorate to the point of becoming unsafe and unhealthy places to live.

Consequently, we have refined our vision for future housing growth to reflect a desire to focus more development activity, including construction of new housing units, within our downtown core. We envision that much of the "new" housing in Barre City developed over the life of this plan will be the result of the replacement or major rehabilitation of existing buildings within our downtown core. The land use chapter of this plan discusses specific recommendations for future housing policies at the neighborhood level throughout the city.

transportation infrastructure

Road System. Barre City has a well-established road system that is not anticipated to require major changes in configuration except for limited new residential streets and possible modifications to various intersections to improve traffic flow. There are nearly 50 miles of roads in Barre City, and the city is responsible for the repair and maintenance of more than 47 miles of those roads.

Figure 7. Street Network Map

Approximately 30% of the city's annual budget (\$2.1 million in 2010) is allocated to roads, including annual funding for street reconstruction of more than \$500,000. The cost of road repair and maintenance is substantially affected by petroleum prices through the cost of vehicle fuel and asphalt. Given that the life span of an asphalt road is typically 10 to 15 years, the city needs to resurface 3 to 5 miles each year to keep up with street reconstruction.

Highways. The city road system includes two highways, Vermont Route 14 and U.S. Route 302, which function as regional arterial highways carrying the majority of traffic traveling through the region as well as the majority of traffic moving around within the region. Route 14 carries north-south traffic between Royalton and Newport. Route 302 is a popular, east-west route for those traveling to/from New Hampshire and Maine. Another state highway, Route 62, travels five miles between the city and Interstate 89 and is classified as part of the interstate highway and expressway system.

Barre City has accepted Route 14 and Route 302 as Class 1 roads, which gives the city greater control over the use and design of these roads, but also makes the city responsible for their repair and maintenance. The state remains in control of and responsible for Route 62.

Road Safety and Congestion. A number of safety and congestion issues have been identified on the city's more heavily traveled streets and at busy intersections (see Figures 9 and 10). These road segments and intersections either already have an unacceptable level of service² or are expected to have an unacceptable level of service by 2020:

Congestion and delays at the intersections along North Main Street have been largely addressed by the North Main Street Reconstruction Project (discussed below).

The Route 14 and Quarry Street intersection has been studied and a traffic signal will be installed in the near future.

A traffic study to examine adding turning lanes to the Elm and Summer Street intersection is currently underway.

No action has been proposed to address concerns at the Route 14 and Circle Street intersection, the Summer and Seminary Street intersection, and the Route 302 and Berlin Street intersection.

Route 302 through the city is at an unacceptable level of service (see discussion below). The section of Route 302 running through downtown is also a high accident location area due to the numerous turning

² Level of Service (LOS) is a method of assessing road conditions. There are six LOS ratings that are ranked in descending order of safety and convenience of travel from Level A to Level F.

movements.

The segment of Route 14 at the city line is approaching an unacceptable level of service.

The presence of two arterial highways in downtown Barre City generates a substantial amount of through traffic. Approximately 17,000 vehicles a day travel on North Main Street between Maple Avenue and Washington Street. This traffic is both a blessing and a curse for our downtown revitalization efforts. The highways bring travelers through downtown, many of whom would otherwise not drive into the city and some of whom can be enticed to stop at local businesses and attractions. The highways also bring congestion, noise and dirt, and may discourage some people from walking around downtown. The North Main Street Reconstruction Project (discussed below) has reduced congestion, mitigated the negative impacts of the high traffic volume to some degree, and created a downtown atmosphere that encourages travelers to stop in Barre City.

Despite the recent improvements, the fact remains that the segment of Route 302 running through the downtown has two conflicting uses. As a major transportation corridor it includes both through (transport trucks and other travelers moving within and passing through region) and local (downtown residents, shoppers and workers) traffic. Those motorists whose destination is downtown then park and become pedestrians. The parking and pedestrian traffic hinders the flow of through traffic, while the through traffic generates noise, dust and odors and hampers pedestrians.

According to traffic consultants hired by the city, the key to improved flows is reducing the overall traffic volumes entering downtown. A downtown bypass for through-traffic would alleviate congestion. However, no such bypass is currently in the planning process and is not anticipated to occur in the near future. Truck routing from Quarry Hill across the river and down Brooklyn Street to Route 62 has been considered, but, again, has no plans or funding. By redirecting traffic away from the downtown business district, a bypass or truck route could have the unintended consequence of re-routing potential customers away from downtown businesses and attractions. The potential costs and benefits of re-directing traffic away from downtown Barre City should be carefully considered before any such solution to the congestion problem is implemented.

Photo by: Nicholas Erwin

Bridges and Culverts. Barre City is responsible for the maintenance of 16 bridges. Two deficient bridges have been replaced since 2005 – the Granite Street bridge and the Prospect Street bridge. All the bridges over the Stevens Branch have now been replaced, so there are no longer any bridges in the city that are structurally or functionally deficient. The May 2011 flood destroyed the Harrington Avenue bridge over Gunner Brook; as of the writing of this plan, no decision had been made on whether to replace this structure. The 2009 Stevens Branch Watershed River Corridor Plan includes a list of bridges and culverts that should be improved to address stormwater and flooding issues.

Bridges and culverts are a critical interface between the built and natural environment. During a storm or flood, if the amount of water attempting to pass under or through a bridge or culvert exceeds the structure's capacity, the structure can wash out, and the road infrastructure and nearby development can be damaged. To reduce the potential for storm and flood damage, bridges and culverts need to be sized appropriately to accommodate swollen streams and drainage ways. The city currently requires culverts of a size adequate to carry a 25-year storm in accordance with state and federal requirements. Larger culverts could be required, which would increase initial construction costs, but would reduce the likelihood of future flood damage. At a minimum, the city should consider requiring culverts that will be carrying a stream to be adequately sized for a 50-year storm.

Figure 8. Traffic Counts
 Source: Vermont Agency of Transportation

	1976	1978	1980	1982	1984	1986	1988	1990	1992	1994	1996	1998	2000	2002	2004	2006	2008
US Rt 302																	
Berlin TL to Richardson Rd																	
Richardson Rd to Berlin St																	
Berlin St to Beckley St																	
Beckley St to Maple																	
Maple St/Beltline to Depot																	
Depot Sq to VT Rt 14																	
VT Rt 14 to Church St																	
Church St to Hill St																	
Hill St to Waterman St					6,300	6,700	6,200	6,900	6,800	6,700	7,400	7,700	7,900	7,500	7,400	7,500	7,300
Waterman St to Barre CL														6,800	6,700	6,800	5,900
VT Rt 14																	
Barre CL to Parkside Terr																	9,500
Parkside Terr to Quarry St																	9,600
Quarry St to Hill St/Ayers St																	
Hill St/Ayers St to WA/N																	
WA/N Main to Seminary St					5,600	6,100	6,200	6,100	6,000	6,200	6,000	6,100	6,500	6,200	6,200	6,400	6,100

Seminary St to Brook St				2,300	2,600	3,000	3,900	3,100	2,900	3,100	2,900	3,000		3,200	3,200	3,300	3,100
Brook St to Merchant St														3,700	3,700	4,400	4,200
Merchant St to Barre CL														6,800	6,800	7,100	6,800
VT Rt 62																	
Berlin TL to Berlin St	4,400	5,000	5,200	5,600	6,300	6,700	8,700	9,300	9,700								
Berlin St to US Rt 302															9,700	9,700	8,900

Figure 9. Intersection Level of Service (LOS)
Source: Central Vermont Region 2020 Regional Transportation Plan ³

	Average LOS		Worst Approach LOS		Notes
	2000	2020	2000	2020	
Signalized Intersections					
Rt 302/Rt 14/Elm St	C	D	C	D	The North Main Street Reconstruction Project is planned to improve performance.
Rt 14/Prospect St/Church St	C	C	C	C	The North Main Street Reconstruction Project is planned to improve performance.
Rt 302/Rt 62/Rt 14	D	D	D	D	The North Main Street Reconstruction Project is planned to improve performance.

³ Level of Service (LOS) for intersections is the standard measure used to quantify the operational performance of highway facilities as perceived by the user. The grades A, B, C, D, E and F are the six possible LOS ratings where “A” indicates excellent conditions with free flow, “E” indicates intolerable conditions with unstable flow, and “F” indicates that demand exceeds capacity. In urban areas, where drivers expect more delays than rural roadways, LOS of “D” is often considered acceptable.

Unsignalized Intersections						
Rt 14/Circle St				F	F	No projects are proposed.
Rt 14/Quarry St				D	F	Changes are being proposed via a VTrans scoping project that supports signalization.
Elm St/Summer St				F	F	No projects are proposed. A traffic study to add turning lanes should be pursued.
Summer St/Seminary St				C	C	No projects are proposed.
Rt 14/Summer St				C	D	Consideration for changes are being considered as part of the Main Street reconstruction project that includes signalization.
Rt 302/Berlin St				F	F	No projects are proposed. The island design was recently modified slightly to improve safety.
Rt 302/Beckley St				E	F	No projects are proposed.

Figure 10. Roadway Level of Service (LOS)
Source: Central Vermont Region 2020 Regional Transportation Plan

	Unacceptable LOS	Ave Annual Daily Traffic		LOS	
		2000	2020	2000	2020
Rt 302 West of Rt 62	E	16,600	19,000	E	E
Rt 302 East of Rt 14	E	18,600	21,390	E	E
Rt 302 West of Rt 14	E	17,600	20,400	E	E
Rt 14 at City/Town Line	E	15,700	18,055	D	D

Figure 11. Bridge and Culvert Map

Bridges and culverts also need to be inspected and maintained to remain fully functional. Debris can accumulate under or in bridges and culverts, reducing the amount of water they can accommodate. Preventing debris – yard waste, sediment and trash – from entering drainage ways and rivers can help maintain flows and reduce flooding potential. There are also a number of abandoned abutments located in the city’s rivers. These structures reduce the carrying capacity of the stream channels, and create an opportunity for debris to back up and cause upstream flooding.

Neighborhood Streets. The majority of Barre City’s road mileage is composed of neighborhood streets. Most of these streets are intended to serve local traffic and it is important to discourage their use by through traffic in order to protect quality of life in the city’s residential neighborhoods. These streets were built over time to varying standards. To address their deficiencies, the city is engaged in an ongoing street reconstruction project, which involves taking the street down to its base, replacing underground infrastructure and reconstructing the street.

Due to historical land development practices prior to the enactment of the city’s subdivision ordinance, Barre City has a number of “paper streets” that can create a challenge to building on some lots in the city. A “paper street” is a strip of land that was intended to become a street, but the street was never built and the strip of land remained privately owned despite the fact that adjoining lots were created. Decades later, ownership and therefore the right to use some of these “paper streets” to access adjoining lots or install utilities (thus allowing the lots to be built upon) is uncertain. Tracing the ownership of these strips of land and resolving the uncertainties could facilitate infill development on some of the city’s undeveloped lots.

Sidewalks. The recent “Complete Streets” movement has focused attention on the importance of developing roadways that can be used by everyone not just drivers – pedestrians, bicyclists, children, seniors, people with disabilities, etc. Sidewalks are a critical component of a “complete street” and allow people to safely walk both as a means of transportation and as a way to improve health and fitness.

Barre City has approximately 20 miles of sidewalks, but the majority of older neighborhood streets were not constructed with sidewalks. There has not been a recent inventory of the condition of existing sidewalks in the city. The city has also not developed a long-range plan for extending the sidewalk system, although new sidewalks have been built in recent years, usually as a result of grant funding.

Figure 12. Pedestrian Network Map

Not only is funding needed to build new sidewalks, but existing sidewalks need to be maintained. The lifespan of a typical concrete sidewalk is 20 to 40 years, which suggests that the city should be replacing between ½ and 1 mile of existing sidewalk annually. While the city allocates funds annually for sidewalk maintenance, the amount is not enough to keep up with the need to repair or replace existing sidewalks. Often sidewalks are not replaced due to their condition but for other reasons such as a need to tear up a good sidewalk to access underground infrastructure or a need to meet accessibility requirements in high traffic areas, etc.

The city needs a sidewalk plan or policy that would address the following questions:

What sidewalks are critical due to high pedestrian traffic?

What are the key destinations for pedestrians?

- Where are new sidewalks needed?
- What external funding is available for new sidewalk construction?
- Should all new streets include sidewalks?
- Who should pay for sidewalk repairs (abutting owners or city)?
- Who should be responsible for clearing snow off sidewalks?
- When should sidewalks be removed?
- What is the process for notice when sidewalk removal is proposed?

Paths and Trails. Both formal multi-use paths and informal trails exist within the city. The paths may provide alternative travel routes for pedestrians and bicyclists, while the trails are primarily used for recreation. The city's multi-use paths not well-integrated into the transportation system and currently function as individual segments rather than a connected network. As mentioned above, the city has not developed a long-range plan for meeting the needs of pedestrians and bicyclists.

For a number of years, the city has been actively engaged in planning for the Central Vermont Regional Path (CVRP), which when complete will run from the railroad junction in Montpelier, through Montpelier, Berlin, Barre City, and into Barre Town. Some portions of the CVRP are already constructed, while other portions are in various stages of planning and design. The Barre City and Barre Town are currently studying the segment of path between Depot Square and the existing Millstone Hill Path in Barre Town (the "City-Town Connector" segment). The city is also working on plans for another segment of the CVRP, which will extend between the Granite Museum and Depot Square in downtown Barre (the "Museum" segment).

Since 2005, both Barre City and Town of Barre have established Path Committees to move forward with the implementation of the CVRP. Planning for the CVRP was re-activated as a result of a \$500,000 bequest from Charles Semprebon to each community. Both committees have identified potential paths that would support the connection of the two municipalities, as was Charles Semprebon's wish.

The CVRP will enhance recreational opportunities, and will provide links to important cultural and historic resources. It will connect neighborhoods to each other, and residential areas to downtown merchants. The path will provide a mode of access to work, school, and community amenities. It will promote a healthy lifestyle by providing a safe and enjoyable place for families and friends to exercise and socialize. The portions of the CVRP within Barre City could also serve as a backbone for a future bike and pedestrian network within the city.

Parking. The city is the principal provider of downtown parking with more than 500 parking spaces in several municipal lots in addition to on-street parking. The availability of public parking downtown has made it possible to reduce or eliminate on-site parking requirements, which supports our efforts to increase the occupancy of downtown buildings. Today, Barre City has an ample supply of public parking. Those willing and able to park and walk a short distance to their destination will seldom have difficulty finding a space downtown. As the number of people working, living and visiting downtown increase, additional parking will be needed as discussed below. Improvements are also needed to increase the quantity and quality of accessible parking spaces and to provide safe pedestrian access within parking lots.

Additionally, two specific types of parking are needed downtown:

Short-term parking conveniently located to downtown businesses. Much of this need could be met by relocating long-term parking (for building employees and residents) away from the prime parking spaces during business hours.

Overnight parking for downtown residents. Parking overnight from November 15 to April 1 is prohibited on city streets to facilitate snow removal and is limited in public parking lots year-round. The

city also restricts the length of time vehicles may remain in most public parking spaces without being moved (some city parking is by permit only and overnight/long-term permits are available for those spaces). Changes to these policies and/or construction of a parking structure (see discussion below) could address the limited supply of overnight parking downtown.

At the present time, the city's public parking is no longer metered as an incentive to bring people downtown. Free public parking, however, is likely not sustainable for the city over the long-term. The city is planning to improve the Merchants Row area and the area between North Main Street and Summer Street, where much of the public parking is located. These projects, which would improve traffic circulation, parking organization, pedestrian safety, stormwater management, and aesthetics, would be a significant public investment. If they were to be undertaken, we would likely need public parking to again generate some revenue to offset the project costs and/or to fund ongoing maintenance.

If parking fees are to be resumed at some future point, a system of varying rates should be implemented to encourage desired parking behaviors (ex. making long-term parking in prime spots more expensive or only allowing users to purchase a limited amount of time in a prime spot) and address some of the current concerns about downtown parking.

The city is also exploring the feasibility of locating a multi-level parking structure downtown to address the increased demand for parking that is anticipated as a result of City Place and further redevelopment of downtown buildings. A parking structure would provide a greater number of spaces in a more compact area, potentially freeing up some of the land now used as parking lots for green space or infill development. As with the improvements to public parking lots discussed above, this is an expensive project that would likely require a revenue stream to offset construction costs and ongoing operation. The city may be able to fund a portion of parking improvements and construction through TIF district revenues.

Public Transit. Barre City is home to a large number of residents who cannot drive or do not have access to a vehicle. This group includes senior citizens, youth, people with disabilities, people whose driving privileges have been revoked, people who cannot afford a vehicle and people who have chosen to live without a vehicle. According to the most recent Census Bureau estimates, there are approximately 620 households living in Barre City without a vehicle (15% of all households in the city, the second highest rate of households without a vehicle in Vermont). For these residents, public transit is a necessity.

The region's primary public transit provider is Green Mountain Transit Authority (GMTA), which merged with Chittenden County Transportation Authority (CCTA) in 2011. Currently, the city is served by two of GMTA's fixed bus routes – the City Commuter, which travels between downtown Barre and Montpelier, and the Barre Hospital Hill, which travels between Barre City and Berlin. Connections are possible from these two routes to other local bus routes and to commuter buses that travel outside the region to Burlington and St. Johnsbury. GMTA also operates several special shuttle routes each week primarily designed to transport residents of the city's senior and public housing to shopping centers and medical services. In 2010, GMTA provided approximately 36,500 trips to nearly 600 Barre City residents.

GMTA continually re-evaluates bus stops and routes and is working to better align its routes and service with riders' needs. While the service provided by the existing routes should be maintained, the city recognizes that as it is currently operated GMTA is not able to meet the transportation needs of some transit-dependent residents. The following needs have been identified:

A circulator bus route serving Barre City neighborhoods. Montpelier has a circulator route and the estimated cost to Barre City for such service would be \$30,000 to \$40,000 each year.

Extension of the City Commuter route to Graniteville, which would serve the employees of Wilson Industrial and the South Main Street corridor.

Service for those who work second or third shift, weekends or other non-traditional hours.

More efficient connections between buses.

Service for high school students, particularly those living too far to walk/bike to school. The lack of public transit for high school students generates traffic congestion within the city at the start and end of the school day.

More formal bus shelters with route maps and schedules would also encourage more people to ride the bus. GMTA is also hoping to locate at least one new bus shelter in the downtown area in the vicinity of the new Brooks/Lenny's Plaza. This is encouraged by the city and limited staff support should be provided to assist with this project.

GMTA also provides an elderly and disabled transportation program that includes:

- Deviated fixed routes

- Council on Aging transportation services

- Medicare transports

- Ticket to ride (an allowance program for non-ambulatory and ambulatory services for disabled persons and their families)

- Ridematch program

- PATH and various other third party transports

Rail. The Washington County Railroad line travels through Barre City largely paralleling Main Street. This line and others built in the 1870s and 1880s made the rapid expansion of the granite industry and associated growth of the city possible by linking the quarries in the region to distant markets. After a long period of dormancy, the rail line was reactivated by the Vermont Rail System and began shipping freight in 2010. With higher fuel prices likely in the future, rail access is again becoming an important economic development asset that Barre City can capitalize on.

To accommodate increased freight traffic and future passenger rail service, upgrades to the tracks and road crossings are needed. The rail line crosses 15 streets in Barre City, and most of those crossings are marked only by signage indicating presence of the rail line. Currently, trains must travel very slowly through the city due to the condition of the tracks and crossings.

Fortunately, the use of the land adjoining the rail corridor in Barre City did not change significantly during the period when rail service was suspended. Most of the corridor remains in industrial or commercial use, and there has been little new residential development that would conflict with resumption of rail traffic. However when trains were not using the rail corridor, people began to use it as informal pathway through the city, which has created a conflict now that rail service has resumed. The return of trains to the city has also brought increased noise, which people are no longer accustomed to hearing. The city, however, has no control over the use of the rail line and its associated impacts on nearby property and can do little to address the concerns that some citizens have raised about the resumption of rail service.

Passenger rail service is available in Montpelier on Amtrak's Vermonter line, which runs once each day between Washington, DC and St. Albans.

Air. Edward F. Knapp State Airport, a general aviation airport in Berlin, is located four miles from downtown Barre City. The state-owned airport does not offer scheduled airline service, but can accommodate corporate or chartered planes. The airport has fueling and repair facilities. The airport completed major improvements in 2010, which included constructing a new taxiway, repaving the runway, and expanding the apron near the terminal area. The airport contains two paved runways, one measuring 5,000 by 100 feet and the other 4,000 by 100 feet, and has electronic navigation equipment.

The nearest commercial airport is Burlington International Airport, which located approximately 40 miles from Barre City.

travel patterns & trends

Traffic. Figure 8 presents traffic data for the city's main roadways. The city's most heavily traveled road segment is North Main Street with approximately 17,000 vehicles per day traveling through downtown. Despite perceptions to the contrary, the amount of traffic downtown has not increased significantly in recent decades. Traffic has increased on Route 62, however, due to development near the interstate in Berlin.

Commuting. During the past 20 years, the commuting patterns of city residents have changed (see Figure 2). Fewer residents are working in the city and the places that Barre City residents commute to are becoming increasingly varied and distant. This change has implications for residents' transportation needs, and it affects many other aspects of daily life – household budgets, time available to participate in leisure, family or community activities, childcare needs, etc. At the same time that more residents are commuting longer distances, a greater percentage are also driving alone to work. Reversing the current commuting trends would benefit Barre City economically, socially and environmentally.

transportation improvements & planning

North Main Street Reconstruction. The reconstruction of North Main Street from Route 62 to the City Hall Park, completed in 2013, replaced all utilities, street lighting, sidewalks, completely reconstructed the road surface, revitalized the streetscape to improve the appearance of downtown and optimized the timing of the lights to facilitate traffic flow. The North Main Street Reconstruction Project replaced our downtown sidewalks and redesigned the crosswalks to improve pedestrian safety. The revitalized streetscape has greatly improved the appearance of our downtown.

Access Management. Vehicles entering and existing roadways contribute to congestion and create opportunities for accidents. Managing where and how vehicles can safely enter or exit a roadway is particularly important on heavily traveled, densely developed and/or high-speed corridors. Access management is a set of techniques that can be used to control access to such roadways in order to increase the capacity of these roads, manage congestion, and reduce crashes.

Once development occurs, it is often difficult and costly to make changes to vehicular entrances/exits making it important to consider access management during the development review process. Although the city's main roads are already largely developed with only limited access control, new development and re-development should include consideration for access management. The city's zoning ordinance includes some access management provisions including limiting the number of driveways per lot and controlling driveway design to some extent. Additional access management techniques that could be included in the city's zoning ordinance are described in the Vermont Access Management Guide.

Involvement in Transportation Planning. The Planning Commission has had only limited involvement in various transportation issues in the city. Most of the transportation planning has been managed by the City Engineer and the Transportation Advisory Committee. The Planning Commission should become more involved in transportation planning as it relates to land use patterns. It is recommended that the Planning Commission periodically meet with the City Engineer and the Transportation Advisory Committee to learn about ongoing transportation planning efforts and to discuss the relationship with the current and anticipated development within the city and region.

PUBLIC UTILITIES

water

Water System. Municipal water is available throughout Barre City. As of 2011, the city water system included the following:

Water Supply. Thurman W. Dix Reservoir and Dam located approximately four miles east of the city in the Town of Orange. The dam impounds water from the Orange Brook, creating the reservoir that supplies the city with drinking water. Barre City owns the dam, which was built in 1950, the reservoir and 1,200 acres of surrounding land. At normal levels, the reservoir has a surface area of 119 acres and stores 1,070 acre feet of water. The reservoir has a drainage area of approximately 11.4 square miles. The city has adopted a Source Protection Plan, as required by state law, which was mostly recently updated in 2011.

Filtration Plant. A water filtration plant located at 164 Reservoir Road in the Town of Orange, which went online in 1994 and is staffed by two city employees. The operating cost of the water filtration plant is approximately \$1.3 million per year. The plant has a maximum treatment capacity of 6 million gallons per day (2 million gallons per day for each of the three filtering units).

Distribution System. There are approximately 78 miles of distribution piping that deliver water to more than 4,100 service connections. There are two pump stations - one for Fire District #8 and one for the Cobble Hill area. System pressure is maintained throughout the remainder of the distribution system by the height of the water in the Clearwell Storage Tank.

Storage Tanks. The water system includes three storage tanks: the 2 million gallon Clearwell Storage Tank located at the filtration plant; the 375,000 gallon Bailey Street Storage Tank located at 190 Bailey Street; and the 1 million gallon Pierce Road Storage Tank located at 23 Pierce Road, which is a cast in place concrete tank built in 2003. The Pierce Road tank was part of a project to upgrade the city's water distribution system to ensure an adequate supply of water to fight a major fire.

Fire Hydrants. There are approximately 270 fire hydrants connected to water system. There are both city-owned and private fire hydrants in Barre City. In recent years, some developments have been required to install hydrants when deemed necessary for fire fighting purposes. The city maintains the private hydrants and charges the owners an annual service fee.

Some areas of Barre Town are served by the city water system: South Barre Fire District #2 (Route 14/South Barre Road); Richardson Road area; Route 14/East Montpelier Road area; Cassie Street area; Camp Street area; Trow Hill area; and Tamarack Lane area.

Water Department. The Water Department, which is part of the Public Works Department, has an office at 4 Burnham Street. The Water Department has four employees. The Water Department and Wastewater Treatment Department share two billing clerks and day-to-day management by the Assistant Director of the Public Works Department.

System Capacity and Use. The city water system currently supplies an average of 1.6 million gallons of water per day to its customers. The maximum daily water demand in recent years has been approximately 3.4 million gallons. The capacity of the filtration plant is 6 million gallons per day.

Planned Improvements. The Water Department and Wastewater Treatment Department operate on revenues generated from rate payers. City water and sewer rates need be at a level to continue to fund required improvements to keep the departments' infrastructure and operations updated and efficient. Planned improvements to the city's water transmission and distribution system include: water meter replacements, replacement of lines on Quarry Street, upgrades to the west side transmission main loop, and establishing a regular flushing program for small diameter lines. There were significant upgrades made to the water treatment plant between 2008 and 2012, and currently there are no planned improvements for that facility.

wastewater

Wastewater System. Municipal wastewater is available throughout Barre City. As of 2011, the city's wastewater system included the following:

Treatment Facility. The city's wastewater treatment facility, located at 69 Treatment Plant Road, has the capacity to treat 4 million gallons per day with a current demand of 2.7 million gallons per day. The plant discharges treated liquid effluent into the Stevens Branch of the Winooski River. The facility first went online in 1960 with major upgrades in 1977 and 1995. An upgrade in 2002 increased the plant's capacity from 3.4 to 4.0 million gallons per day.

Collection System. There are approximately 58 miles of sanitary sewer piping.

Barre City's wastewater system also serves parts of the Town of Barre. As of 2011, the town had an allocated of 1.5 million gallons per day and a current demand of 1.1 million gallons per day. The city works closely with the Town of Barre regarding future capacity needs for those areas of the town served by the plant.

Wastewater Department. The Wastewater Treatment Department, which is part of the Public Works Department, has three employees.

System Capacity and Use. In 2011, our wastewater facility had a committed reserve capacity of less than 0.5 million gallons per day and an uncommitted reserve of nearly 0.9 million gallons per day (enough to serve more than 4,000 additional homes). The wastewater treatment facility is limited to a maximum discharge of 7,306 pounds of phosphorus annually based on the Lake Champlain Phosphorus TMDL (total maximum daily load) established in 2002. Recent upgrades to the treatment plant have greatly improved the plant's effectiveness at phosphorus removal. The plant currently discharges 4.5 pounds per day or 22% of the maximum allowed. It should be noted, however, that the limit on phosphorus does not increase if the plant's flow increases.

Planned Improvements. As with many city's, Barre City faces the challenge of repairing and upgrading our aging water and sewer lines. To the extent feasible, replacement of old pipes should be coordinated with street reconstruction and scheduled as part of an ongoing capital improvement program. Planned improvements to the city's wastewater infrastructure collection system include: continued replacement or lining of trunk lines, replacing lines on Washington Street and Quarry Street; and siphon replacement. At the wastewater treatment facility, improvements are needed to the primary clarifiers, grit removal, and the dewatering room.

storm sewers

Barre City does not have a municipal stormwater utility, but is responsible for a significant amount of stormwater infrastructure. (Also see discussion of stormwater in the Natural Environment chapter of this plan.)

The city has completed a major upgrade of the downtown stormwater system as part of the North Main Street Reconstruction Project. Stormwater from North Main Street and the buildings along it is now collected and directed to retention ponds. With the completion of this project, a major source of stormwater entering the city's wastewater treatment plant has been eliminated. As a result, the potential for combined sewer overflows during heavy storms (when the amount of stormwater flowing into the treatment plant overwhelms its capacity resulting in sewer back-ups and/or releases of untreated wastewater to the river) has been significantly reduced.

As the city continues to upgrade its underground infrastructure, remaining stormwater drains flowing into the sanitary sewers will be separated so that stormwater is not directed to the wastewater treatment plant.

solid waste

Solid Waste Management. Barre City government does not directly provide trash and recyclable collection and disposal services. City households and businesses can contract with one of several private, licensed haulers that pickup trash and recyclables. Barre City is a member of the Central Vermont Solid Waste Management District (CVSWMD), along with 17 other municipalities in the region. As a CVSWMD member, the city's obligation under state law to plan for solid waste disposal is met by the district. The district's Solid Waste Implementation Plan, as most recently adopted, is incorporated into this plan by reference.

Landfill Siting. The district's waste had been hauled to the Moretown Landfill for disposal, but the future of that facility is uncertain at this time. The Moretown Landfill has not been successful in efforts to obtain state permits to expand. CVSWMD explored options for developing a new landfill in the early 2000s that included potential siting in the Barre Town/Barre City area.

Currently, the Barre City zoning ordinance allows landfills, landfill collection sites, solid waste incinerators, solid waste, and transfer facilities as conditional uses within the industrial zone. Recycling centers are allowed as permitted or conditional uses within the commercial, commercial-industrial and industrial zones. State law limits a municipality's ability to regulate regional solid waste facilities, and CVSWMD would largely have control over the siting of a new landfill in the district.

In May 2005, CVSWMD proposed amendments to its Solid Waste Implementation Plan including new landfill siting criteria. The new criteria would not allow a landfill within Barre City, however, landfill development in neighboring towns could have a substantial affect on the Barre City road system and city property owners. Thus far, CVSWMD has been unsuccessful in its efforts to site a new lined landfill disposal facility in the district.

Solid Waste Generation. Each Vermont resident currently generates an average of one ton of waste per year. Currently about one-third of that waste is recycled, reused or composed, while two-thirds is landfilled or incinerated. CVSWMD has adopted a goal of working to achieve "zero waste" in the district and believes that its zero waste goal can help create new businesses and jobs through waste-based economic development, strengthen existing businesses, and protect public health and the environment. It is estimated that landfilling/incineration creates one job per 10,000 pounds of material, while composting creates four jobs, sorting and processing of recyclables creates 10 jobs, remanufacturing 25 jobs, and reuse business between 28 and 296 jobs.

CVSWMD has had a mandatory recycling ordinance since 1994 that requires all households and businesses in the district to recycle: glass (all colors), cans (tin, steel and aluminum), foil and pie plates, aerosol cans, plastics #1-#7, newspaper, magazines, catalogs, paperbacks, white and colored office paper, paper mail, envelopes, brown and colored paper bags, boxboard, corrugated cardboard and phone books. CVSWMD is also actively promoting composting. Residents can purchase home composting units from the district at a discounted price, and the district has established programs to compost food waste from schools, restaurants

and other businesses.

Former City Landfill. Barre City is responsible for the ongoing monitoring of its closed, unlined municipal landfill on Farwell Street. Leachate from this former landfill has contributed to reduced water quality in nearby Gunner Brook, which the state now classifies as an impaired waterway (see Natural Environment chapter of this plan). The site is now known as Tarquinio Recreation Field and has a baseball field and soccer fields, as well as other open space areas.

electric utility

Electric Distribution and Service. Green Mountain Power (GMP) provides electricity in Barre City, including three-phase power to the city's industrial and commercial areas. GMP operates several substations within the city and has a maintenance facility located on Blackwell Street. GMP provides the city with adequate electric services with minimal disruption, and has historically had the lowest average rates for any major investor-owned utility in New England. In recent years, GMP has expanded and upgraded its infrastructure to meet customer demand for reliable and affordable power.

Electric Transmission Infrastructure. VELCO (Vermont Electric Power Company) owns the 115-kV transmission line that brings electricity to the city. The transmission line corridor travels through the city, parallel to Route 62, then crosses Prospect Street and continues in a southeasterly direction. VELCO's 2009 Vermont Long-Range Transmission Plan includes a proposed project to upgrade the Barre substation (in Barre Town on Upper Prospect Street near the city line) and install a second 115/34.5 kV transformer by 2018 to address identified reliability issues. The plan notes that the need for this \$10 to \$20 million project could be forestalled through additional generation and/or demand reduction of 20 to 40 MW of electricity.

Efficiency Utility. Efficiency Vermont, the statewide energy efficiency utility, provides technical advice and financial incentives to businesses and homeowners. Efficiency Vermont can assist with identifying cost-effective steps to lower energy costs through energy-efficient buildings, equipment and lighting. Contact them directly at 888-921-5990 or visit their website at www.encyvermont.com. More information about energy usage and conservation is presented in the Energy chapter of this plan.

Power Generation. As of 2011, there were no electricity generating facilities operating in Barre City, but the city had nearly completed a project to generate power at the Nelson Street Pressure Reduction Valve Control Vault (a component of the city's water system). Water arrives at this site from the treatment plant at a high pressure, which must be lowered before the water enters the distribution pipes that serve downtown. The energy produced as a result of this pressure reduction will be harnessed to generate electricity. The power will be net metered and will offset the electricity used within the city's water system.

telecommunications utilities

Wired Telephone Service. FairPoint Communications provides wired telephone and DSL (digital subscriber lines for high-speed internet) service in Barre City. Their district office within the city is located downtown on Elm Street; this location ensures that DSL service, which is based on distance from the district office, is available throughout the city.

Wireless Telephone Service. Wireless telephone service is available in the city from several national providers. Several companies have antennas mounted on the Barre Auditorium, which provide coverage throughout most of the city and generate revenue to offset the operating costs of the Civic Center. Cellular antennas have also been mounted on the roof North Barre Manor. The city encourages the continued practice

of mounting antennas on existing structures in a manner that results in the infrastructure being effectively blended into its surroundings and not highly visible.

Cable Service. Charter Communications offers cable service throughout the city. In addition to television service, customers may opt to receive phone service and/or broadband internet service over cable. Charter Communications has a sales and service location downtown on North Main Street.

Satellite Service. Both television and broadband internet service are also available via satellite from multiple national providers. The city's zoning regulations allow such satellite dishes to be installed in residential districts without a zoning permit.

Fiber Optic Cable. Sovernet Communication's Vermont FiberConnect project, underway as of the writing of this plan, will build a middle mile fiber optic network across seven Vermont counties, including Washington County. The network will provide high-capacity connections to community anchor institutions (schools, libraries, colleges, state government offices, public safety communications networks, etc.). The project will provide data transport service at speeds up to one gigabit per second to institutions, businesses, local broadband service providers and cellular operators.

Public Wi-Fi. There is interest in establishing a public wi-fi network in our downtown business district. As more people are using wireless devices (laptops, smart phones, tablet computers, etc.), they expect to have a connection wherever they are and wherever they need it. A public wi-fi network would support efforts to attract office and professional jobs downtown, and allow those workers to patronize nearby businesses while taking their work along with them.

energy supply and demand

Electricity. Green Mountain Power (GMP) is the utility provider of electricity in Barre City, as described in the Public Utilities chapter of this plan. In 2010, 46% of the electricity GMP sold to customers was generated from hydropower and another 40% was generated from nuclear.

Space Heating. Most buildings in the city are heated with fuel oil, which is supplied by a number of private companies including three dealers located within the city. More than 70% of all Barre City residences, and more than 80% of owner-occupied homes, are heated with fuel oil, based on data from the Census Bureau. The remaining buildings are heated with propane, electricity or wood. Heating accounts for about half of the energy consumed in the average Vermont home.

Transportation. There are approximately 10 gasoline stations in Barre City that provide vehicle fuel. According to the U.S. Census Bureau's American Community Survey (2005-2009), Barre City residents own more than 5,600 vehicles. Approximately 16% of city households do not have a vehicle (2nd highest percentage in Vermont), while around half own two or more vehicles. More than 80% of employed city residents drive alone to work, while only 1% take public transportation.

Fuel Supply. At any given time, local distributors of heating fuel and gasoline generally have only enough supply on hand to meet customer demand for a week or less, and are dependent on regular deliveries from interstate and international suppliers. If the supply chain were to be disrupted, local inventory would quickly be depleted.

Figure 13. Vermont Household Average Energy Consumption

Source: Vermont Department of Public Service ⁴

	Amount Used	Unit Cost	Annual Cost
Electricity	750 kWh/month	13¢ - 15¢ /kWh	\$1,170 - \$1,350
Heating Oil	850 gallons/year	\$2.50 - \$3.50 / gallon	\$2,125 - \$2,975
Vehicle Fuel	1,300 gallons per year	\$2.75 - \$3.75 / gallon	\$3,575 - \$4,875
Total			\$6,870 - \$9,200

⁴ Unit costs represent the range of energy prices from 2009 to 2011.

municipal energy use

City government has direct control over its energy use and reducing energy costs has a direct bearing on the municipal budget. One of the most direct public benefits of municipal energy efficiency initiatives (or the generation of below-market rate energy from renewable resources) is that the savings are passed on directly to taxpayers.

Barre City has begun to lead by example on energy efficiency and conservation by conducting energy audits of many city facilities and buildings. The city is undertaking various recommended improvements to reduce municipal energy use. Energy efficiency upgrades are being made at the BOR, which are expected to reduce that building's operating costs by at least \$8,000 each year. The city anticipates replacing the inefficient lighting at the Auditorium following completion of the BOR project.

Most streetlights in the city are owned by GMP and the city is charged a flat rate per light, irrespective of actual energy use. Many Vermont communities have substantially reduced electricity costs by surveying existing streetlights and making adjustments to their location and number to ensure public safety while reducing unnecessary nighttime lighting.

As part of the North Main Street reconstruction project, the utility-owned conventional streetlights were replaced with city-owned energy-efficient lights. Similar replacements are anticipated as the city moves forward with improvements to Merchants Row and other public properties. Replacing existing streetlights with new LED lights can reduce energy consumption from 25% to 75%, and the LED lamps last up to 10 times longer than conventional technologies. When the efficient streetlights are city-owned, the cost savings can flow directly to taxpayers.

There are a number of opportunities for reducing the amount of petroleum used to power the city's vehicle fleet. Conventional vehicles could be replaced with vehicles that could use alternative fuels or blends, and/or more fuel-efficient vehicles. Fuel could be conserved by reducing the amount of time vehicles are left idling and by reducing miles traveled through improved routing, or combining or eliminating trips.

Figure 14. FY 2010 Municipal Energy Costs

	Electricity	Fuel Oil	Bottled Gas	Vehicle Fuel
City Hall	\$14,864	\$44,632		
Auditorium	\$28,177	\$45,358		
BOR	\$46,022		\$14,551	
Public Safety Building	\$24,489		\$24,110	
Public Works Garage	\$7,052	\$14,648		
Street Lighting	\$159,560			
Water Filtration Plant				
Wastewater Treatment				
Fire Department				\$24,358
Police Department				\$31,599
Street Department				\$43,440
Facilities Department				\$2,575

renewable energy resources

Renewable energy can be generated from sunlight, wind, water, organically derived fuels, including wood and agricultural sources, waste heat and geothermal sources. There are many opportunities within Barre City to generate renewable energy, particularly of a scale and type that can be incorporated into the city's higher-density built environment such as solar panels or geothermal systems.

It may be feasible to generate hydropower by re-tooling the infrastructure already in place in the city's rivers and at city-owned sites. Use of waste heat from industrial activities to generate electricity or provide space heating for nearby buildings may be feasible in Barre City. Additionally, the downtown business district may be a suitable location for district heating.

Solar. The potential to generate energy from wind is limited in Barre City, but solar power could be a feasible option, particularly for residences or when incorporated into the design of new or renovated buildings. Solar PV (which generates electricity) and solar thermal (which generates hot water) systems comprise the fastest growing renewable energy sector in Vermont, and there are many in-state incentives available to make these technologies more affordable for homeowners and businesses.

Combined with energy efficiency and conservation, a five-kilowatt solar PV system can provide 90% to 100% of the average Vermont household's electrical needs. In 2011, the total cost of a five-kilowatt solar PV system cost in Vermont was around \$30,000 (design, equipment and installation), which could be reduced by as much as \$12,000 with various rebates and incentives. A two-collector solar hot water system can reduce an average Vermont household's hot water needs by 70%. In 2011, the average cost of a two-collector solar hot water system in Vermont ranged from \$9,000 to \$12,000 (design, equipment, and installation), and that cost could be as low as \$5,400 with various rebates and incentives.

Building and Site Design. Building and site design is an important factor in promoting passive solar. Buildings that are oriented close to true south (within 30 degrees) maximize available solar energy, as long as the solar radiation is not blocked. Through the placement of windows on the south wall, installation of thermal mass (such as concrete, brick, quarry tile, or water), and adequate insulation, as much as 60% of a building's space heat can be derived from the sun. Careful design and placement of windows can greatly reduce the energy required for daytime lighting.

Municipal building codes, zoning bylaws and subdivision regulations can all have a direct bearing on the promotion of solar energy through strategic siting, landscaping and building design and construction standards.

Hydro. Barre City owes its existence and location to the availability of waterpower, which was harnessed by early industries. While the city's rivers are no longer generating energy, that renewable resource still exists with potential to be used in new ways that are less disruptive to the natural environment.

The 2007 City of Barre Energy Recovery Study analyzed the feasibility of several low-impact hydroelectric energy recovery projects. As discussed in the Public Utilities chapter of this plan, the city has nearly completed work on one of the recommendations, the Nelson Street PRV project. The study also looked at various options for generating hydropower at the Dix and Lower Orange Dam/Reservoir, and concluded that 140,000 to 390,000 kilowatt hours of electricity could be produced annually, while maintaining the site's primary function as the municipal water supply. This could offset the approximately 660,000 kilowatt hours of electricity consumed at the city's water treatment facility each year. The projects would have a payback of 10 to 15 years, which could be reduced if the city obtained grant funding.

Geothermal. Energy can also be generated in urban settings through geothermal systems that take advantage

of the relatively constant temperature below the frost line. During the winter, a heat pump extracts heat from water circulated through underground pipes to distribute throughout the building. The system is reversed in the summer, with the heat pump extracting heat out of the hot air in the building and sending warmed water into the earth to be chilled. The installation price of a geothermal system can frequently be greater than that of a conventional heating and cooling system, but the additional costs are typically returned in energy savings in five to ten years.

District Heating. As a dense urban center, downtown Barre City is a suitable location for district heating. District heating systems distribute steam or hot water to multiple buildings. In Barre City, this heat could be generated from a renewable source, like wood chips, or potentially by waste heat from industry. There are a number of potential locations that could be redeveloped for this use including the BOR property and the former coal-gasification plant on Williams Lane. Many district heating systems are also designed to be cogeneration plants that generate electricity as well as heat.

energy efficiency and conservation

Energy efficiency and conservation are critical components of solving current energy problems because it is more cost effective to reduce energy consumption than to produce more energy. Efficiency measures also have direct economic benefits to municipalities, residents and businesses by lowering energy bills. Improved efficiency is also an economic development strategy. Approximately 80¢ of every dollar spent on energy efficiency remains in Vermont, while approximately 80¢ of every dollar spent to purchase energy leaves the state.

Efficiency Vermont. Vermont was the first state in the nation to create a utility, Efficiency Vermont, to coordinate the state's energy efficiency programs in 2000 (see the Public Utilities chapter of this plan). As of 2011, Efficiency Vermont had assisted more than 320 commercial or industrial building owners in Barre City with efficiency improvements resulting in annual energy savings of 5,400 megawatt hours of electricity. The utility had also worked with nearly 290 residential property owners resulting in efficiency improvements that save 2,300 megawatt hours of electricity each year.

Weatherization Assistance. Central Vermont Community Action Council (CVCAC), based in Barre City, provides weatherization services free of charge to homeowners and renters (with landlord approval) who meet income and other qualifications. For qualified households, CVCAC will conduct an energy audit of the home, assist the household with applying for free lighting and appliance upgrades (where applicable) from Efficiency Vermont, and provide renovation construction services from a qualified crew, including materials and supplies. CVCAC also offers educational workshops designed to help homeowners understand the steps they can take to make their homes more energy efficient and trains homeowners to make efficiency improvements, which are open to all city residents. For more information, contact CVCAC directly at 877-919-2299 or visit their website at www.energysmartvt.com.

Building and Site Design. Land use and development regulations can be used to promote greater energy efficiency through incentives or development standards. In addition, certificates of occupancy administered through zoning bylaws can be used to ensure compliance with state efficiency standards that have not been effectively enforced. Finally, municipal building codes may establish local efficiency standards.

PACE District. A new program became available in 2009 that allows Vermont municipalities to help owners invest in energy efficiency and renewable energy projects for their homes and businesses – the Property Assessed Clean Energy (PACE) program. Barre City voters approved creating a PACE district in 2012, but the city has not yet started the program.

The PACE program is intended to help homeowners make energy improvements by providing loans that will be paid off by the participating property owner through a special assessment tax over a period of up to 20

years. Non-participating property owners have no obligation to pay for any of the costs of a PACE district. If the property is sold or transferred before the cost of the improvements is repaid, the new owner continues to pay the special assessment tax. The money saved through reduced energy costs in many cases will cover the additional tax payment. Owners of residential properties with one to four units would be eligible to participate.

Local Action. Several groups and organizations are working on energy efficiency and conservation efforts in Barre City including CVCAC, BEAR (Barre Energy Action Resource) and ReSOURCE (Recycle North).

COMMUNITY SERVICES AND AMENITIES

city government

Barre City is governed by an elected City Council consisting of a mayor and two councilors from each of the city's three wards. The City Council is responsible for preparing the annual budget, approving all city expenditures, adopting city bylaws and ordinances, establishing city policies and priorities, and appointing various municipal officials and board members.

A City Manager, appointed by the Mayor and City Council, oversees the day-to-day administration of the city. The City Manager is responsible for hiring and supervising department directors and other city employees, negotiating city contracts, and making recommendations to the Mayor and City Council.

An elected City Clerk and Treasurer is responsible for maintaining municipal records, issuing various licenses and permits, administering elections, collecting property taxes, maintaining financial records, and recording the minutes of City Council meetings.

All other municipal government functions are carried out by city departments and their employees including:

Assessment Department assesses all real property in the city for tax purposes, and maintains the Grand List and tax maps. The department is located in City Hall and has a contract assessor and one shared employee with the Permitting and Planning Department.

Cemetery and Parks Department is responsible for the operation and maintenance of city cemeteries and parks. The department has three full-time employees and a number of part-time employees. The department's offices are located at Hope Cemetery. Additional information about this department is provided below.

Facilities Department oversees all buildings and grounds owned by the city, and provides custodial and maintenance services for the Auditorium, Alumni Hall, BOR, City Hall and the Public Safety Building, as well as a number of parks, recreation fields and playgrounds. The department has five employees and is located in Alumni Hall.

Department of Permitting, Planning and Inspection Services was created in 2011 to serve as a one-stop location for local permits and inspection programs by merging the former Building and Housing Department and the Planning and Zoning Department. The new department has an array of responsibilities including: issuing building, electrical and zoning permits; inspecting new construction, renovation projects and rental housing units to ensure that codes and regulations are met and buildings are safe for occupancy; coordinating land use planning and community development efforts; grant writing; providing support for the city Planning Commission and Development Review Board; and enforcing various regulations and ordinances. The department is located in City Hall and has three employees.

Public Safety Department consists of Fire/EMS and Police, which are now collocated at the Public Safety Building and share a supervisor, the Public Safety Chief. More information about this department is provided below.

Public Works Department is responsible for the maintenance and repair of city streets and sidewalks, storm sewers, water and sewer infrastructure, for the operation of the Wastewater Treatment Facility and the Water Treatment Facility, and the engineering and supervising of public improvement projects.

See the Public Utilities and Transportation chapters of this plan for additional information related to this department.

Recreation Department operates the city’s recreation facilities and programs, offers an array of fun activities for residents of all ages, and sponsors and assists with the organization of community and special events. The department is located in Alumni Hall and has one full-time employee and a number of seasonal employees. More information about this department is provided below.

Figure 15. City Budget
Source: Barre City Annual Reports

	City Budget Raised by Taxes		% Change From		% General Fund
	actual	adjusted to 2010\$	prior yr	1999-00	
1999-00		\$5,333,245			71%
2000-01		\$5,284,082	-0.9%	-0.9%	71%
2001-02		\$5,488,989	3.9%	2.9%	73%
2002-03		\$5,737,017	4.5%	7.6%	75%
2003-04		\$5,578,598	-2.8%	4.6%	77%
2004-05		\$5,718,740	2.5%	7.2%	77%
2005-06		\$5,753,585	0.6%	7.9%	78%
2006-07		\$5,858,754	1.8%	9.9%	77%
2007-08		\$6,159,570	5.1%	15.5%	75%
2008-09		\$6,514,775	5.8%	22.2%	71%
2009-10		\$6,906,027	6.0%	29.5%	71%
2010-11		\$6,901,174	-0.1%	29.4%	71%

public safety

Police Department and Facilities. Barre City has a municipal police department that included 18 full-time and 12 part-time officers and six dispatchers in 2011. The department’s operating budget in FY2011-12 was \$1.5 million, which included \$1 million in salaries and \$160,000 in overtime pay. The Barre City Police Department responded to about 9,400 calls in FY2011-12.

While the total number of officers has increased, the department currently has three fewer officers “on the beat” than it did 30 years ago because a number of officers are assigned to other roles. To be more proactive, the department believes the force would need to consist of 20 to 24 full-time officers. Such an expansion would result in an annual budget increase of \$275,000 to \$625,000 in salaries not including additional costs for vehicles, equipment and uniforms.

The Bureau of Justice Statistics (BJS) 2007 Local Police Departments Report indicates that the national average officer-to-residents ratio for police departments serving a municipality of 2,500 to 9,999 residents was 2.3 officers per 1,000 residents. The Vermont average is 1.9 officers per 1,000 residents. That level of staffing would equate to a force of 18 to 21 full-time officers in Barre City. The 2007 BJS report states that the

average operating budget for police departments serving a municipality of 2,500 to 9,999 residents was \$87,200 per sworn officer, which puts Barre City's police budget in-line with that of similarly sized municipalities around the country.

The police department moved into the newly constructed Public Safety Building at 15 Fourth Street in 2006, which is shared with the Fire Department, vacating the space it had occupied in City Hall for more than a century. While the new building meets the present facility needs of the department, the initial building design was reduced by 5,000 square feet in order to lower construction costs and consequently has little room to accommodate future growth in the department's space needs. Annual debt service for the Public Safety Building is approximately \$325,000 per year.

As of 2012, the department had a fleet of 11 police vehicles. The department believes that its vehicles should have an average service life of six years, and so would like to replace two vehicles each year. In recent years, the department has not been able to maintain this replacement rate due to budgetary constraints. In 2013, three of the department's vehicles had been in service for six or more years and an additional four vehicles will be six years old in 2014.

Police Calls and Crime Rates. The number of police calls has been increasing slowly, but steadily in recent years (see Figure 16). In the five-year period between FY2007 and FY2012, the number of calls increased by 18%. The general perception is that a significant percentage of police calls involve someone recently released by the state Department of Corrections, but there are also other factors leading to the increased number of calls such as the ease of reporting suspicious incidents via 911 and cell phone.

More than 80% of calls that the police department has responded to in recent years did not rise to the level of a crime. These included various types of citizen assistance, false alarms, and E911 hang-up calls, among others. A total of 634 crimes occurring in Barre City were included in the 2010 Vermont Crime Report, while the city police department responded to more than 9,000 calls that year. The department is also responsible for administrative activities, such as court-mandated check-ins, which are taking up an increasing amount of officer time each day.

Despite perceptions to the contrary, Barre City is generally a safe community. Between 2005 and 2010, Barre City's overall crime rate ranged from 50 to 81 incidents per 1,000 residents each year (as reported in the Vermont Crime Report). The city's crime rate is similar to other urban communities in Vermont like Brattleboro, Montpelier, Newport and St. Johnsbury, and is lower than the crime rate in Burlington, Rutland and Winooski. According to the 2010 Vermont Crime Report, 80% of reported crimes were against property, primarily theft and vandalism.

In 2011, the mayor formed a taskforce to examine the issues surrounding the approximately 320 Barre City residents under the supervision of the Probation and Parole Office (the 4th highest number in any Vermont municipality). The taskforce found that offenders face significant challenges upon their release (jobs, transportation, housing, substance abuse or other mental health treatment) and there is not a system in place that is designed to coordinate the offender's successful reentry to the workforce and the community. The result is that more than half of released offenders statewide will be incarcerated again within three years. The taskforce's primary recommendation was the establishment of a "one-stop" re-entry center that would serve as a single point of contact for the information, services and resources the returning offender might need. A pilot re-entry program able to serve eight to ten participants, modeled on a similar program in Winooski, is being planned for Barre City as of the writing of this plan.

Fire and EMS Department and Facilities. Barre City has a municipal fire and emergency medical service (EMS) department consisting of a full-time Deputy Chief, 18 full-time responders and approximately 20 additional members who can be called up when needed (they are paid by the call). The department's operating budget in FY2011-12 was \$1.9 million, which included \$1 million in salaries and \$155,000 in overtime. The department responded to 783 fire calls and 2,463 EMS calls in FY 2011-2012.

The station is manned by a minimum of three members available to respond at all times. When ambulance and fire calls are received, off-duty members are called to cover the station until the duty crew returns to the station. The department has a fleet of 16 vehicles, including five fire apparatus and three ambulances.

The city's Code Enforcement Division was incorporated into the fire department in 2012. Fire department personnel have been cross-trained as NFPA Certified Fire Inspectors who will be responsible for electrical, building and minimum housing inspections. They will be inspecting rental properties and commercial establishments to ensure compliance with state law and city ordinances related to safety, health and quality of life.

Fire and EMS Calls. The number of EMS calls has been increasing steadily in recent years. The rate of EMS calls in Barre City is dramatically higher than the Vermont average. In recent years, there have been approximately 290 EMS calls for every 1,000 Barre City residents as compared to a statewide average of 33 calls per 1,000 residents. Barre City has the highest per capita rate of EMS calls in the state; Montpelier has the next highest with around 182 calls per 1,000 residents. The high rate of EMS calls is related to the number of elderly and other residents with special medical needs living in the city, and to number of city residents who lack access to basic healthcare and transportation services. The department bills for ambulance service and earned \$780,000 in FY2011-12.

Figure 16. Emergency Services Calls FY2005 - FY2011

Source: Barre City Police Department

	FY05	FY06	FY07	FY08	FY09	FY10	FY11
Police	8,876	8,488	8,565	9,214	10,095	10,562	10,281
EMS	1,778	1,619	1,776	2,008	2,223	2,154	2,386
Fire	439	429	429	482	434	416	492

Emergency Management. Emergencies and disasters are unpredictable, but through proactive planning and mitigation the danger, damage and disruptions these events cause can be minimized. Structure fires, floods and severe weather occur quite regularly in Barre City. Other hazards that we should be taking steps to avoid or mitigate include a failure of the East Barre Dam, contamination of the city's water supply and earthquakes.

Flooding is the most commonly recurring hazard in Barre City. Our floodplain is highly developed and there are approximately 760 properties located within the delineated 100-year floodplain. There are also properties outside the delineated floodplain that may be vulnerable to flood-related hazards. Just over the past two decades, Barre City experienced flood damage in 1996, 1997, 1998, 1999, 2000, 2002, 2007, 2008 and twice in 2011. While the flood control measures that were put in place after the devastating flood of 1927 have reduced the severity of flooding in Barre City, the low-lying areas of the city still regularly flood with one to two feet of water during severe storms. In recent years, more flooding damage has been a result of our stormwater drainage system's inability to accommodate surface run-off than of rivers and streams overflowing their banks.

Barre City has an approved 2011 Rapid Response Plan, a 2011 Emergency Operations Plan and a 2012 Hazard Mitigation Plan that are incorporated by reference into this plan. Barre City also has adopted Flood Hazard Area regulations that meet the requirements of the National Flood Insurance Program, which ensures that city property owners will be eligible for flood insurance and potentially federal assistance in event of significant flooding.

parks and recreation

Recreation. Barre City has a municipal Recreation Department, which operates out of Alumni Hall. The department is responsible for the operation of the city's parks and recreation facilities, and for offering a variety of year-round recreation programs for residents of all ages. The department's operating budget in FY 2011-12 was \$87,000 with an additional \$175,000 spent operating the BOR Shelter. The city's Facilities Department and the Cemeteries and Parks Department maintain the recreation areas and parks. As a result of contributions from the Semprebon Fund, a number of playgrounds throughout the city have been upgraded with new equipment and other improvements in recent years.

The Recreation Department offers a range of programs throughout the year. The largest is the summer youth program based at Rotary Park where children can enjoy the pool (and take swimming lessons) and other facilities at the park. The program operates weekdays during the school summer vacation period, and serves lunch and a snack to the children. Various organized activities are scheduled for summer youth program participants. A number of private summer camps also use the pool at Rotary Park as part of their program. The department also administers a wellness program for city employees.

Many of the city's parks and recreation facilities serve not only city residents, but also to residents from surrounding communities. Generally, the Recreation Department's programs are designed to pay for themselves through user fees. The city earned about \$18,000 from admissions to the pool at Rotary Park. In addition, the picnic shelters in Rotary Park are rented almost every weekend throughout the summer for parties, reunions, weddings and the like. Most programs have different fees for residents and non-residents. For several years, the department has been working to make Alumni Hall, the Auditorium and the BOR Shelter more self-sustaining by increasing rental rates and attracting more events to use the facilities. The city earned about \$180,000 in FY2011-12 from renting the BOR Shelter and another \$40,000 from the Auditorium.

At one time, Barre Town supported recreation facilities and programs in the city, which were then available to town residents on the same terms as to city residents. There are still some shared programs and coordination between the city and town, but the town's has significantly reduced its financial contributions. Given the financial challenges faced by Barre City and its neighboring municipalities, coordinated recreation planning and programs between communities could result in more cost-effective programming, more varied programs and increased use of existing facilities. The Barre City Recreation Department strives to network with other communities and organizations to provide residents with access to more recreation opportunities.

The Recreation Department is also working to respond to the city's changing demographics. While the number of school-age children and teens has declined in recent years, there appears to be a boost in the population of preschool-age children, which suggests that younger families are moving into the city. The department is looking at programs and facilities targeted to these youngsters and their parents. The department is also seeing growth in the number of seniors. When upgrading neighborhood parks and playgrounds, the department intends to consider the needs and interests of older residents. The department has already begun to add benches to many of the parks.

Cemeteries and Parks. Barre City has a Cemetery and Parks Department, which is charged with the operation and maintenance of three city-owned cemeteries and some of the city's parks. The department is based out of a facility at Hope Cemetery. The cemeteries include Hope Cemetery on Maple Avenue, Elmwood Cemetery on Washington Street, and St. Monica's Cemetery on Beckley Street; only Hope Cemetery continues to have lots for sale. The department also maintains City Hall Park, Currier Park, Dente Park and the Stonecutters Monument, and the Robert Burns Monument.

The Cemetery and Parks Department had operated as a separate entity with enterprise funds from lot sales and burial fees providing a bulk of the operating funds until 2011 when it became a city department. One of the reasons for that change was the ongoing decline in the department's revenue stream, which is largely due to more cremations and fewer entombments. At the same time, operating costs have continued to rise, making it difficult to sustain an adequate level of services and maintenance. In future years, funding for cemetery and park maintenance will likely need to be allocated to the department from the city's general revenues to supplement the income generated from these facilities.

Cemetery maintenance is particularly important in Barre City because Hope Cemetery is a showcase of the city's granite carving heritage. More than 25,000 tourists visit Hope Cemetery annually to view the ornate and unique monuments created by generations of local artisans. The Cemetery and Parks Department does generate some revenue by offering more than 35 guided group tours of Hope Cemetery annually and by selling a guided tour DVD. Hope Cemetery is an unparalleled cultural resource that could be more effectively marketed as part of Barre City's efforts to attract visitors.

education

Education. Barre City has an elementary and middle school located at 50 Parkside Terrace, which serves students from pre-kindergarten through eighth grade. City students in grades 9 through 12 attend Spaulding High School, located at 155 Ayers Street, along with students from Barre Town. The Barre Technical Center, collocated with Spaulding High School, offers hands-on career training programs for high school students and adults from throughout Washington County.

Barre City Elementary and Middle School (BCEM) had an enrollment of 863 students (PK-8) during the 2010-11 school year, approximately 100 fewer students than were enrolled 10 years prior.

In 2010-11, BCEM ranked 182 out of Vermont's 218 public elementary schools based on the students' combined NECAP Mathematics and Reading score of 130. This represents an increase from ranking 203 out of 217 with a combined NECAP score of 116 in 2006-07. 60.5 percent of BCEM students were eligible for free or discounted lunch in 2010-11, which is a high percentage as compared to other Vermont schools. The school had 87 full-time teachers and a student-teacher ratio of 9.6, which is close to the Vermont average, in 2010-11.

Spaulding High School, built in 1964, serves students from both Barre City and Barre Town. The school's enrollment was 814 students in 2010-11, nearly 200 students fewer than were enrolled 10 years prior.

Spaulding High School ranked 32 out of Vermont's 44 public high schools based on the students' combined NECAP score of 100 in 2010-11. This represents a decline from 2007-08 when Spaulding High School ranked 19 out of 44 with a combined NECAP score of 104. The school's ranking and students' scores have been highly variable from year-to-year. Spaulding High School had approximately 92 full-time teachers and a student-teacher ratio 8.8 in 2010-11. Approximately 27 percent of Spaulding's students were eligible for free or discounted lunch in 2010-11.

Library. The Aldrich Public Library sits in a prominent downtown location across from City Hall Park at 6 Washington Street. While an independent nonprofit organization, Aldrich Library relies upon the municipalities of Barre City and Barre Town for less than half its annual operating budget. The city supported the library with \$108,000 in FY2011-12 or approximately \$12 per city resident. The remainder of the library's annual budget of \$450,000 comes from donations, grants and earnings from an endowment fund. The library also has a branch location in East Barre. The library has requested that both the city and town increase their appropriations to \$150,000 annually to more nearly approach the state average tax support of \$27 per capita. Around 6,400 city residents (about 70%) are registered library borrowers and city residents borrow nearly 40,000 items from the library each year.

The library, a Classical Revival building dedicated in 1908, retains its historic character, including the granite entrance with two polished columns, steps and a carved frieze. In 1999, work commenced on a 12,000 square foot addition to the library in order to offer expanded services and improve accessibility, which resulted in a total of 20,000 square feet of library space. From the front entrance, the historic interior has been restored. The ground floor now contains the Katherine Peterson Children's Room and the Milne Community Room with multi-media and gallery components where library and community meetings are held. The historic reading rooms and glass floor stacks are located on the main floor, along with expanded shelving for new books and media. The top floor contains the Vermont collection with extensive local history materials, the Young Adult Room, Board Room, fiction section and staff offices.

In 2010, Aldrich Library received a bequest of \$1.4 million from the estate of Ronald York. This generous gift has substantially increased the library's endowment. At the present time, the library plans to use the interest income primarily to upgrade outdated equipment and technology. The library's current collection includes nearly 50,000 books, as well as approximately 6,000 videos, DVDs and audio materials.

In 2010, library staff, trustees and volunteers completed work on a new long-range plan for the library. The plan calls for expansion of many of the programs and services offered by the library and for new initiatives in the areas of lifelong learning, community affairs, history and culture, technology, art, diversity and business. The plan sets forth a number of goals for Aldrich Library, including to promote:

- Access to materials and opportunities for lifelong learning.
- Opportunities for residents to be informed and engaged citizens.
- A love of reading and education in children and their caregivers.

history and culture

Barre City has a wealth of historic and cultural assets that express our community's unique heritage. There are two National Register Historic Districts in the city, as well as a number of individually listed sites and buildings. Our downtown is home to a number of culture and arts institutions including the Barre City Opera House, Studio Place Arts and the Vermont History Center. Throughout our community are reminders of our granite heritage including the impressive granite monuments in parks and cemeteries, the Old Socialist Labor Party Hall and the Vermont Granite Museum.

Barre City Hall and Opera House. The Barre City Hall and Opera House at 6 North Main Street across from City Hall Park is one of our city's most impressive landmarks. Completed in 1899, the Neoclassical building represents an era when a city's civic pride and economic prosperity was manifest by the construction of major public buildings. The building continues to function as it did a century ago when it first opened. Offices for City Hall occupy the first floor, while the Opera House encompasses the upper floors.

When it opened in August 1899 the Opera House was considered the finest theater in Vermont. Today, that space is considered one of the best-preserved late-19th century small theater interiors in northern New England. The Opera House experienced a decline in use after World War I and eventually closed in 1940 for a period of more than 40 years. The Opera House reopened in 1982, although in need of much repair. It was renovated over the next decade, and reopened in 1993. Many of the original interior details remain including the original balcony and ornamented boxes, proscenium arch, art glass fanlight and pressed metal ceiling. The exterior of the yellow and red brick structure, like so many in Barre, features ornamental granite.

Old Labor Hall. A unique National Historic Landmark has been preserved in Barre City – the Socialist Party Labor Hall at 46 Granite Street. Located in what was Barre City's Italian section, the Socialist Labor Party Hall is a two story flat-roofed brick structure with a gambrel-roofed single story rear hall. Its design reflects no

particular architectural style, but its form does illustrate the building's function as an assembly hall. The exterior is simply ornamented with Barre granite details. The most important of these is a carved medallion depicting an arm bearing a hammer, the symbol of the Socialist Labor Party, and the initials SLP.

Volunteers of the Italian community built the building in 1900 as a center for union activity, social events and community support. For nearly four decades, the hall was an epicenter of radicalism and reform. Internationally known political and labor leaders delivered impassioned speeches on workers' rights and social policy. At a time when Vermont was solid Anglo Saxon, Protestant, Republican, and anti-union, Barre City was a hotbed of anti-establishment, anti-clerical, and anti-capitalist causes – anarchists, socialists, syndicalists, American Labor Party supporters, and Industrial Workers of the World (Wobblies) met at the Labor Hall. When the hall opened in 1900, there were 15 local unions and more than 90% of Barre's workers were union members. The Labor Hall held the offices and meetings of the Granite Cutters International Association, at the time the largest local union of granite workers in the country.

The post World War I "red scare" and the notorious trial of anarchists, Sacco and Vanzetti, in 1920 created a national paranoia that dampened the fervor of radical groups. The Labor Hall continued to function under socialist stewardship during the 1930s, although less vigorously, until 1936 when it was sold at auction to the Washington Fruit Company to be used as a warehouse and remained as such for nearly 60 years. A local bank foreclosed on the building in 1994 and a group of local residents, with the support of present-day labor organizations, mobilized to save the building. In doing so, they also revived the defunct Barre Historical Society, which is housed in the hall, and the building is used for community events and, once again, political meetings.

Studio Place Arts. The Barre Historical Society and a group of artists developed a plan to save the Nichols Block in downtown from demolition. After major renovations, the building re-opened in 2000 as Studio Place Arts, a community arts space. SPA has become an important regional resource for art making, learning and exhibition, and provides programs that attract people from around the region. SPA's mission includes providing a threefold benefit to the city – economic development, cultural enrichment and community service. Barre City is an ideal location for SPA because it is a city that has a rich cultural history tied to the granite industry and the many artisans who immigrated to the community from Europe to work carving granite. Historically, nearly all of the resource extraction, manufacturing jobs, and creative, skilled work in Barre City were connected to the local stone carving tradition.

Vermont History Center. In 2000, the Vermont Historical Society acquired the historic, former Spaulding School in downtown Barre City. They have renovated the building to house an exhibition space and administrative offices on the first floor. The building's second floor is the Leahy Library, a center for historical and genealogical research open to the public. The library contains a variety of resources documenting the history and people of Vermont, including a collection of books, pamphlets, letters, diaries, ledgers and scrapbooks dating from the 1770s to the present. Some of Vermont's earliest maps and planning documents are available at the library, as well as an extensive collection of photographs and broadsides. With a special interest in family history, the library has the largest printed genealogical collection in the state.

Vermont Granite Museum. The Vermont Granite Museum is located on a 12-acre parcel of Route 302 at the northern gateway to the city. The museum, which is still under development, is located in the Jones Brothers Company's original 25,000 square foot granite shed built in 1895 (the largest ever built at that time) and restored in 2002. Plans for the museum include exhibits on all aspects of the region's granite heritage - geology, technology, tools, and culture - hands-on education and training, and a sculpture garden.

The granite shed housing the museum is a long timber frame building, which is now supported by steel trusses and a new concrete foundation added during the 2002 renovation. The renovation also built a new exterior over the original, which allowed the building to be fully insulated while preserving the look and feel of the original raw interior timber frame and presenting the exterior as it would have looked originally. The main shed is still largely unfinished, with a dirt floor, no heat or plumbing; further improvements will be made as funding allows. A smaller, 1,600 square foot space extending off the shed was completed in 2008 to

house research materials, an exhibit area, meeting room and class room. Part of the main shed houses a state-of-the-art stone carving facility that includes eight carving bankers, two sandblasting rooms and a 7.5 ton overhead crane.

Barre Downtown Historic District. The Barre Downtown Historic District includes the area around Depot Square, Main Street and Washington Street, and west to the railroad. The commercial and public buildings that form the Barre Downtown Historic District reflect our city's rapid transformation in the 1880s from a rural farming community to an urban, industrial center.

With the arrival of the railroad, downtown was rapidly transformed from a small residential village to a streetscape of multi-story commercial, institutional, and industrial blocks. As a result, most buildings within the district reflect architectural styles popular at the end of the 19th century. The need for accomplished stone workers resulted in a wave of immigrants. In contrast to other Vermont communities, Barre was uniquely shaped by the variety of cultures, political ideas and traditions these immigrants brought with them. Their craftsmanship, as well as those of local artisans, is reflected in the quality and character of the historic district.

After a period of decline in the second half of the 20th century, the Downtown Historic District is enjoying a wave of renewal and reinvestment. Many of the buildings have undergone renovations fostered by federal historic preservation tax credits and strong local support for downtown revitalization. A walking tour of the district is available.

Currier Park Historic District. Currier Park Historic District includes the homes around Currier Park on Park Street, East Street, Academy Street and North Street. It is a well-preserved planned neighborhood dating from the late 19th and early 20th centuries. The land that now comprises the Currier Park Historic District was the last large farm adjacent to the central business district, known as Currier Farm. In 1883, Steadman C. Chubb began developing his land as a new residential neighborhood. He laid out streets and building lots, and donated a two-acre lot at the center of the neighborhood to the city to become Currier Park. Large lots front on tree-lined streets with frame homes built to uniform setbacks characterize the Currier Park Historic District. The large residences surrounding the park were constructed for wealthy families prospering from the city's economic growth. Many have now been subdivided into multi-family buildings or converted to non-residential uses.

Wheelock Law Office. The historic Wheelock Law Office is a city-owned building at 135 North Main Street that has housed the Barre Senior Citizen Center since 1975. The building was constructed in 1871 as a law office and courtroom and pre-dates the surrounding larger block buildings. The Wheelock Law Office is the only residentially-scaled building remaining downtown on North Main Street from the pre-railroad period when the street was a wide tree-lined thoroughfare flanked by imposing residences. Many of the building's original elements remain which characterize the Second Empire architectural style, including a slate mansard roof, projecting entrance tower, deep moldings, and arched and pedimented windows and doors. Although the building has undergone some significant alterations on the first floor, the second floor is still intact. Many small retail businesses have occupied the building throughout its history. Since 1975, it has housed the Barre Senior Citizen Center.

Italian Baptist Church. The historic Italian Baptist Church at 10 North Brook Street is a unique example vernacular architecture built between 1906 and 1908. Designed by the church's first minister and built largely by volunteer labor from immigrant Italians, the result was an adaptation of Northern Italian Renaissance style churches. The monumental front on the building, almost entirely comprised of local granite, includes polished granite Doric columns and other granite elements include rusticated granite blocks, smooth granite panels for the walls, and decorative pilasters and frieze.

The Italian Baptist Church also speaks to the role religion played in the assimilation of new immigrants in America. The Baptist Association of Vermont established the church in the midst of the city's Italian neighborhood not only to attract new members, but also to assimilate immigrant cultures and values into

American society. By World War I, many Italians immigrants had become Baptist churchgoers but by the 1930s the congregation had dwindled and the building became the meeting hall for a fraternal organization. Subsequently, the building housed other denominations and has been used as a commercial building.

Twing Gristmill. The historic Twing Gristmill is located at 450 North Main Street and currently contains the business offices of the Hill-Martin Corporation. The building was built in 1844 as part of an industrial mill and iron castings complex. The brick gristmill, the only building to remain of the large complex, is representative of Barre's pre-railroad industries. For an industrial building, Twing's gristmill was unusually ornamented, especially the interior, with a double spiral staircase, paneled walls, marbleized columns, and wallpaper. Decorative granite trim was liberally applied to the exterior. By 1910, the building had become a storage house. In the late 1970s with virtually nothing remaining of the interior mechanical systems, the Hill-Martin Corporation undertook the rehabilitation of the mill for their offices. Many of the original interior details exist and were adapted into the office space

health and human services

Childcare. The 2010 Census counted 1,039 families in Barre City with children under age 18; 48% of those families were married couples and 52% were single-parent families. The percentage of single-parent families in Barre City is much higher than in the state (34%) or county (35%). Of the nearly 600 pre-school age children living in Barre City according to the 2010 Census, 560 (95%) had all their primary caregivers in the workforce. There were also around 880 school-age children living in households where all their primary caregivers worked.

While more precise estimates of demand for childcare are not available, it is clear that many parents in the city need childcare services to allow them to work outside the home. There are also parents who are employed in, but do not live in, Barre City who want childcare that is located near to where they work. The availability of quality, affordable childcare is an economic development asset – as many employers recognize that without this service their ability to attract and retain employees will be reduced.

Vermont regulates both daycare centers/programs and home daycare providers, and childcare providers can seek various levels of accreditation as appropriate to the type of services offered. There were nine licensed daycare centers/programs and 27 registered home daycare providers located in Barre City in May of 2013; the number of providers in the city fluctuates regularly, particularly the number of registered home daycare providers. The licensed daycare providers were reporting fewer than 20 vacancies, while the home daycare providers could have accommodated 50 additional children in total.

Parents in Barre City seeking a childcare provider or related assistance can contact Child Care Support Services at the Family Center. Their staff can refer parents to childcare providers with openings, and help parents find financial assistance to make childcare more affordable for families. The center also offers support and training to childcare providers in the region.

Seniors. Barre City has a large population of seniors and is a regional provider of elderly housing with approximately 300 senior housing units. Approximately 20% of Washington County residents age 74 or older live in Barre City and those residents account for 8% of the city's total population. According to the 2010 Census, there were 630 city residents age 65 to 74 and 770 city residents age 74 or older. Older residents, particularly the frail elderly have a greater need for public services like healthcare, EMS and transportation, while more active seniors have leisure time to participate in community activities and enjoy public amenities like parks and recreation programs.

The Barre Area Senior Center, located in a historic city-owned building at 135 North Main Street, provides seniors with a variety of social, educational and health-related activities. The center has approximately 250

members and is open weekdays from 8 a.m. to 2 p.m. A bequest in 2010 from the estate of Ronald York has allowed the Barre Area Senior Center to hire a full-time director. The center plans to offer its members additional wellness activities and to provide a computer lab and resource center. It also plans to improve the organization's website and more actively collaborate with other centers and organizations serving seniors in the region.

There are also a number of nonprofit organizations working in Barre City that provide various services for older residents including:

Project Independence is an adult day health services center that offers a program of services and activities designed to promote the health and well being of frail elders and people with disabilities from a center at 81 North Main Street in downtown Barre City on weekdays from 7 a.m. to 4 p.m. The center has recently expanded and can now serve up to 65 participants.

Central Vermont Council on Aging (CVCOA) assists more than 1,300 Barre City seniors annually with community and home delivered meals, health insurance counseling, transportation, family caregiver support and respite, companionship, help with household tasks, mental health services, and legal services.

Healthcare. Barre City residents can access a range of healthcare services within the city and neighboring communities including:

The Central Vermont Medical Center (CVMC), located off Route 62 in Berlin approximately four miles from downtown Barre, is the region's primary healthcare provider. CVMC includes a 122-bed hospital, which provides 24-hour emergency care, a full spectrum of inpatient and outpatient services, the National Life Cancer Treatment Center, 17 medical group practices (including several practices with offices in Barre City), and the Woodridge Rehabilitation and Nursing Home.

The People's Health and Wellness Clinic, located at 553 North Main Street, provides primary care to uninsured and under-insured patients who could not otherwise afford healthcare services. The clinic is largely staffed by health practitioners from around Central Vermont who donate their services, and medical and nursing students volunteering as part of their studies. Barre City residents make more than 400 visits to the clinic annually.

Central Vermont Home Health & Hospice, based in Barre Town, is a full-service, nonprofit Visiting Nurse Association that provides medically-necessary home health and hospice care to Barre City residents regardless of their ability to pay. The agency promotes general health programs in the community such as vaccinations, health screenings, workshops, clinics and caregiver support. Home care services included skilled nursing, home health aides, rehabilitation therapies, medical social services, long-term care services, homemaker service, respite care, private duty nursing, and hospice care for the terminally ill.

NATURAL ENVIRONMENT

physical setting

Barre City developed along the Stevens and Jail Branches of the Winooski River, and the rivers and surrounding terrain have shaped its development pattern. Most of the developed areas of the city are located in the relatively flat river valley with residential neighborhoods extending up into the hills above the downtown within and beyond the city limits. The terrain rises up steeply on the west side of the river, while to the east the valley is wider and the grade climbs more gradually. West Hill to the northwest is nearly 800 feet above the valley floor.

The terrain also defines Barre City's drainage patterns, resulting in three primary watersheds within the city limits with most of the city draining to the Stevens Branch below the Jail Branch. These primary watersheds can be further divided into smaller drainage areas associated with tributaries to the Stevens and Jail branches. The river and stream valleys in the city, and in the surrounding uplands beyond, are relatively narrow – a fact that has contributed to flooding being an ongoing challenge for the city.

Barre is known as the Granite City for the high quality stone that has been, and continues to be, quarried in the area. The presence of granite as the predominate bedrock is a result of the geologic history of this part of Vermont. Granite is a very hard, igneous rock and it has remained while softer, metamorphic rocks have eroded away. Millions of years of erosion have lowered and smoothed the terrain, creating the hill and valley topography that exists today. Over this bedrock, the process of glaciation deposited a layer of unsorted tills as the ice receded. In the city, the soils are primarily loams with limited deposits of sand and gravel.

Barre City experiences a moderate climate with a 130-day growing season. Average annual rainfall is 36 inches and average annual snowfall is 98 inches. July is the warmest month with an average high temperature of 78°F and January is the coldest month with an average low temperature of 8°F.

Figure 17. Terrain and Elevation Map

Before widespread clearing in the 1800s, land within the city would have been forested primarily with native Northern Hardwood forest. With perhaps the exception of the steepest slopes, wooded areas within the city are regrowth of land that was cleared at some point during the previous 200 years. While development and fragmentation of habitat has adversely affected the wildlife that would have resided in the native forest, many species are still thriving in the undeveloped land within and just beyond the city limits.

There are approximately 750 acres of primary agricultural soils, as mapped and classified by the Natural Resource Conservation Service, within the city. More than half of these soils have been built upon, but several hundred acres of agricultural soils remain undeveloped on the large tracts of open land left within the city (further discussed under Open Space below). Two farms continue to operate within the city.

water resources

Rivers. Barre City's two primary rivers are the Jail Branch and the Stevens Branch of the Winooski River. The Jail Branch begins in the Town of Washington and flows 16 miles before joining the Stevens Branch behind 121 South Main Street in Barre City. The Jail Branch passes through a retention dam in East Barre built for flood control after the devastating flood of 1927. The Stevens Branch originates in Williamstown and travels 13 miles before emptying into the Winooski River in Berlin. It flows 3.5 miles through the city.

The Jail Branch, Stevens Branch and their tributaries were assessed for their geologic and river characteristics that contribute to stream stability in 2004 (Phase 1 Geomorphic Assessment). That initial assessment was followed up by a more detailed study in 2009 of the least stable sections of the streams (Phase 2 Geomorphic Assessment). The resulting reports, 2004 Stream Geomorphic Assessment of the Stevens Branch and the 2009 Stevens Branch Watershed River Corridor Management Plan, are included as appendices to this plan.

Watersheds. The Jail Branch drains nearly 31,000 acres and the Stevens Branch above the Jail Branch drains approximately 22,000 acres. All development and changes in land cover that increase runoff or decrease infiltration rates within these 53,000 acres affect the quality, quantity and velocity of the water flowing through the city. Increase in impervious surface and/or loss of forest cover within these watersheds increase the potential for flooding downstream in Barre City.

Within the city, more than 145 properties abut the two rivers – including a mix of residential, commercial, and industrial uses. The land in the Jail Branch watershed within the city is largely undeveloped and steep. With the exception of the hillside that rises next to Route 62, the terrain is less severe in the areas of the city within the Stevens Branch watersheds and accordingly those watersheds are considerably more developed.

Flood Hazards. Flooding is a fact of life in Barre City, a community built largely in floodplains. While actions have been taken to control the rivers and minimize the destructive force of floodwaters from the inception of development along the riverbanks, the city continues to experience flooding on a fairly regular basis. Historically, river management and flood control focused on engineering solutions like straightening, armoring and/or damming. In recent decades, the focus of river management and flood control has shifted towards restoring the natural functions of river corridors and better management of development within floodways and floodplains.

Water Quality. The Vermont Agency of Natural Resources has placed the lower half-mile of Gunner Brook (a tributary of the Stevens Branch that runs along Farwell Street) on the 303(d) list of impaired waters; this is the only surface water body within the city so designated. Water quality problems in Gunner Brook are a result of leachate from the closed Farwell Street landfill and surface runoff from developed land.

The Vermont Agency of Natural Resources has identified both the Stevens Branch and Jail Branch within the city as priority surface waters in need of further assessment. Problems affecting water quality in these rivers are largely related to surface runoff from developed land, but the state has not yet documented a violation of Vermont's Water Quality Standards that would result in the rivers being placed on the 303(d) list.

States establish water quality standards and identify impaired waters that do not meet those standards under the authority of Section 303(d) of the federal Clean Water Act. Under that law, a TMDL (total maximum daily load) must then be established for the pollutant(s) that are impairing water quality, resulting in a higher level of state regulation throughout the affected watersheds. Keeping additional rivers and tributaries within the city from being placed on the 303(d) list will require careful management of stormwater and hazardous waste, as the primary pollutant of concern is surface runoff from developed land.

Stormwater. Stormwater poses a significant challenge within the city. Historically, stormwater was “managed” solely to remove it from the built environment as quickly as possible – this often meant collecting and piping the water directly to the nearest stream or river. As the amount of development within a watershed increases, this type of management becomes unsustainable. More water is entering streams and rivers more quickly during storms leading to downstream flooding. Stormwater picks up and carries sediments and pollutants as it flows over surfaces, which reduces water quality in the receiving streams, rivers and lakes. Stormwater has little opportunity to infiltrate into the ground and replenish the supply of groundwater.

The amount of development within the city's watersheds has made it necessary to do more than simply remove stormwater from rooftops, streets and parking lots. The water needs to be managed so that sediment

and pollutants are removed, so that there is opportunity for infiltration, and so that the rate of release to streams and rivers is controlled to minimize flooding.

These objectives are all difficult to accomplish in areas that are densely developed. Low impact development (LID) techniques can be used to integrate stormwater management more effectively into the built environment. These techniques include rain gardens (small green spaces designed to collect, treat and infiltrate stormwater), green roofs (which collect and hold rainwater), and pervious paving (which allows water to infiltrate). More effective management of stormwater on individual properties will forestall the need for costly municipal infrastructure improvements or other significant city actions to address stormwater.

The simplest approach to stormwater management is to minimize the amount of impervious surface within the watershed. There are many opportunities within the city to reduce the amount of impervious surface as private properties and public spaces are revitalized and redeveloped. Not only is this beneficial in reducing stormwater runoff, but increased greenspace within the city is beneficial for the microclimate, for aesthetics, for wildlife, and for residents' quality of life.

Wetlands. The Vermont Agency of Natural Resources has mapped and classified less than 3 acres of wetlands within the city. The amount of hydric soils within Barre City suggests that many wetlands were filled and built upon as the city developed, as was common practice until recent decades.

Science has now shown that wetlands provide essential ecological services and the loss of wetlands to development exacerbates flooding and water quality problems within a watershed. Wetlands function like a sponge, holding excess water that runs off from adjoining uplands or that overflows the banks of flooded streams and rivers. They store that water, allowing it to slowly infiltrate into the ground or seep into adjacent water bodies. By reducing the rate of surface flow, sediment and pollutants drop out of the water and are deposited in the wetland.

Within the city, there are locations where wetland functions can be protected or restored. One example is the Canales Wetland, a two-acre parcel of land at the corner of Pleasant Street and Fortney Place, which was purchased by the Capital Area Land Trust to preserve a significant wetland and which is now city owned. Plans call for using this property as a small wooded park with walking trails.

River Corridor Revitalization. Historically, Barre City's riverfront was developed as an industrial and transportation corridor. The Main Street buildings turn their backs to the river. For much of the city's history, there has been limited physical and visual access to the river. Changes in development and land use along the riverfront are making it possible for the river corridor to have a new life as a natural, recreational and scenic asset within the city.

Within the downtown, the Stevens Branch runs through an industrial area that is anticipated to be redeveloped with a new mix of uses over the next decade. This redevelopment presents an opportunity to improve the appearance of the riverfront with public walkways, landscaping, and lighting. Such improvements would allow residents to rediscover this natural resource. Riverfront improvements would require acquisition of public easements over private land and considerable public investments in walkways.

brownfield remediation & redevelopment

A brownfield is land that has been contaminated, usually as a result of industrial activity or the intentional or unintentional spilling/dumping of hazardous materials. Many brownfields have been left essentially "ownerless" as companies have gone out of business, leaving the responsibility for clean-up to federal, state and local governments. It is often difficult to sell brownfield sites as potential purchasers can have difficulty securing financing for a contaminated site. In recent years, Barre City has successfully obtained state and federal funding to assist with brownfield remediation with the goal of transforming blighted properties into sites suitable for private redevelopment.

Hazardous Waste Sites. As of 2010, the state Agency of Natural Resources had identified 77 hazardous waste sites within the city, the majority of which had been remediated or required no further action. Many of these are locations, such as gas stations, where small spills occur from time-to-time; several such incidents are reported within the city each year and with appropriate response most pose little threat to environmental quality or human health.

The state has identified five high-priority sites within the city that have more serious contamination issues. These include the Barre Coal Tar site on Williams Lane, the former Howe Cleaners site on Depot Square, the Bonacorsi and Sons site on Prospect Street, and two private residences that experienced major fuel oil spills. Remediation at these sites is in various stages of planning and implementation.

Williams Lane. A 0.87-acre parcel at the end of Williams Lane next to the Stevens Branch currently is listed as a brownfield site due to coal tar remaining in the soil. The state currently operates wells to monitor the movement of the coal tar from the site. The area cannot be disturbed to any degree, although indications are that the coal tar movement is limited. "Capping off" the site with an impervious surface would further reduce the potential for the coal tar to migrate off the site and potential into the adjoining river. Currently, there is no funding to remove the hazardous materials. This site must continue to be monitored until such time that it can be remediated or capped off and be redeveloped.

Depot Square. The property at 9 Depot Square is listed as a brownfield because it is contaminated with dry cleaning chemicals. It was once considered a Superfund site and there were legal battles over cleanup costs. The building on the property was destroyed by fire in 2008. Currently, the city is in the process of acquiring the property and final remediation is planned as part of the improvements to Merchants Row.

Prospect Street. The Bonacorsi and Sons site on Prospect Street is another brownfield caused by dry cleaning chemicals. The building that once housed Malnati's Dry Cleaners is also gone, but it sat between the post office and the Bonacorsi and Sons building. The pollution has crossed under Prospect Street into Merchants Row. This brownfield may also be addressed as part of the Merchants Row project.

open & green space

Large Undeveloped Tracts. Approximately 480 acres of undeveloped land in large tracts remain within Barre City. Some of this land is suitable for development, but a significant amount has natural resource constraints (primarily steep slopes) that limit development potential. Much of this land is forested and some has been logged over the years. The remaining land is farmland with open fields, some of which remains in agricultural use. These lands provide a diverse and productive mix of habitat types supporting abundant wildlife, including turkey, deer, bear, bobcat, moose, and many other species of birds.

The Planning Commission completed a study of undeveloped land, which was most recently updated in 2011; the study is incorporated into this plan as an appendix. The study examined the opportunities and constraints for future use of not only these large tracts, but other undeveloped or vacant lands within the city.

While some development is expected and desired on these large tracts, the lands also serve an important function in their undeveloped state as open space. This open space provides a range of environmental services, including wildlife habitat and erosion and runoff control. These lands also provide opportunities for passive or low-impact recreation, allowing city residents to enjoy outdoor activities more typically associated with rural living. Further, greater interest in the local food movement may make continued agricultural use of some of the open land once again an economically viable option. For all these reasons, the large, undeveloped tracts contribute positively to the quality and character of the community as a whole – making Barre City a more attractive place to live, work or visit.

City-Owned Land. Barre City owns a significant amount of open and green space available for public access or recreation. Some of this land is developed as parks and formal recreation areas, but much of it is undeveloped land including a former rail bed, which is planned to be redeveloped as a bike path through the city, and the 'Cow Pasture' (see discussion of this property in the Land Use Chapter below). The undeveloped municipal land includes two large parcels: the closed 20-acre landfill off Farwell Street and a 10-acre lot north of Rotary Park.

Other Open and Green Space. The city and other civic entities own more than 140 additional acres of land that also serve as open and green space. This includes 90 acres within cemeteries, including the 55-acre Hope Cemetery, whose memorials reflect Barre City's stone working and sculpting heritage. The school district owns approximately 35 acres, including developed recreation fields and facilities. There are also a number of privately-owned properties that include formal green space and many more developed properties that have retained undeveloped natural areas.

Figure 18. Open Space Map

planning areas & neighborhoods

Planning Areas. This chapter of the plan assesses current land use and development patterns in Barre City and provides guidance for the future development and redevelopment of our city. The city can be viewed as a mosaic of neighborhoods, each of which has its own unique history, opportunities and constraints. The overarching recommendation of this land use chapter is that the city's regulations need to be revised to better reflect the individual character and needs at a neighborhood level.

While each neighborhood is discussed separately, there are a number of general land use types and patterns in the city that can be found in multiple neighborhoods. Ten general planning areas are shown on the Future Land Use Map (opposite) and described below. These areas should not be interpreted as zoning districts. If the land use recommendations made in this plan are implemented, most of these areas will include a number of zoning districts tailored to their neighborhoods. But within each planning area the zoning districts will share a common DNA that originates from the general vision for each area described below.

Downtown Central Business District. This is our core downtown area along North Main Street. This area is envisioned to remain a traditional downtown center composed of multi-story, mixed-use buildings fronting directly on the sidewalk. The city plans to develop and adopt a form-based code for this area to ensure that future development follows the historic pattern that will likely replace the current Central Business zoning and Design Review overlay districts.

Industrial. This area includes several developed areas along the rivers and rail line that house intensive industrial uses. Due to the nature of the industrial and compatible business activities occurring in these areas, they are not suitable locations for residential development or other uses that would conflict with the industrial nature and purpose of the area.

Commercial, Industrial and Mixed Use. This area includes the blocks extending outward from the Downtown Central Business District, the lands along the main travel corridors through the city, and some of the less-intensive or more mixed industrial sites along the rivers and rail line. These lands include a mix of high-density residential, commercial and industrial uses - often in close proximity to one another.

These areas are currently zoned into multiple districts: Central Business, Downtown Mixed Use, Commercial, Industrial, Commercial/Industrial, and Planned Residential. The discussion of current and future land use by neighborhood makes a number of specific recommendations for zoning changes in throughout this area. Generally, the land in these areas is envisioned to be redeveloped over time with a mix of light industrial, commercial and high-density residential uses. As our downtown revitalizes, growth will push out into adjoining blocks and along the main travel corridors.

Neighborhood Commercial and Mixed Use. This planning area includes both gateways to the city on Route 302, as well as some small, pre-existing commercial sites associated with residential neighborhoods scattered around the city. Some of these lands are in the Commercial zoning district and others are grandfathered in a residential zoning district. These are areas where the city needs better control over the scale, intensity, impact and appearance of development than the current zoning provides. The overall goal would be to establish and maintain attractive gateways at each end of the city, and small-scale, neighborhood commercial areas that fit into their residential setting.

High-Density Residential. This area primarily includes the residential blocks closest to downtown and along the main corridors. While once predominately single- or two-family homes, the construction of apartment buildings and the conversion of single-family homes to multi-family homes has resulted in

much higher density neighborhoods. Most of these properties are currently in the Planned Residential zoning district. This plan envisions that these areas will continue to become higher density through infill, conversion and redevelopment. The overall goal is to promote higher quality development and redevelopment that will create safe, healthy and attractive residential options within close proximity to downtown Barre City.

Moderate-Density Residential. This area also includes established residential neighborhoods characterized by a gridded street network with primarily single- or two-family homes on small lots. These properties are currently in either the Planned Residential or R-10 Residential zoning district. These blocks are facing, or are envisioned to face, increased demand for conversion of single-family, owner-occupied homes to multi-unit, rental buildings.

This plan recognizes a need for changes to the zoning that will tailor the district standards to better match the specific characteristics of individual neighborhoods. These neighborhoods were established and built out over more than 100 years and in different physical settings. As such the neighborhoods display a range of lot sizes, building types and sizes, building placement on the lot - all of which combine to create a particular character. The overall goal is adjust to zoning to provide some opportunity for infill and support extensions into some currently undeveloped land, but generally to not allow significant changes in the density and development pattern of these neighborhoods.

Low-Density Residential. This planning area includes both developed and undeveloped land, a lot of which has moderate natural constraints (such as slopes). These areas include much of the single-family housing built in recent decades. They tend not to be as integrated into the city's gridded street network and to have irregularly placed lots and inconsistently placed buildings in order to fit development to the site.

The lands in this area are currently in either the Planned Residential or R-10 Residential zoning district. These are areas that are not suitable for high- or moderate-density residential development, but may have opportunities for further infill and development of some of the open lands, particularly if creative approaches and alternative types of residential development are pursued. There are some specific neighborhood level recommendations made regarding such development opportunities. The recommendations made in the Natural Resource chapter of this plan regarding better standards to protect environmental quality and sensitive resources would apply to some of the lands in this planning area in particular.

Very Low-Density Residential. This planning area includes predominantly undeveloped land which typically has more serious natural constraints (such as steep slopes). With careful site selection and special construction techniques these areas could include a number of very attractive single-family house sites. Planned unit developments would be appropriate in this planning area to cluster housing on developable portions of properties that likely contain many unsuitable areas. As these areas generally do not contain services at this time (roads, power lines, water and/or sewer lines) construction in these areas will be more expensive than elsewhere in the city. It is not expected that these areas will be cost effective in the near future due to current market conditions and the additional cost of development but, unlike the conservation area, these lands should be considered developable in the future.

Civic and Recreation. This planning area includes several types of land including city-owned properties, parks, cemeteries and schools. This plan envisions that the civic and recreation lands will continue in public or quasi-public ownership and use.

Conservation and Open Space. This planning area contains those lands that face severe challenges, such as steep slopes, limited access or floodplains, and are largely unsuitable for development. This plan envisions that these areas will remain largely undeveloped or, if already developed, will not be further developed.

This planning area also includes a buffer along the rivers and their tributaries through the city. While there is already significant development in portions of these corridors, as recommended in other chapters

of these plans, it is our goal to restore natural vegetation along the rivers and streams and pull development back from them to the greatest extent feasible. This will both have environmental benefits and reduce the hazards associated with flooding and erosion.

What follows in this chapter of the plan, is a neighborhood-by-neighborhood discussion of current and future land with specific recommendations for regulatory changes and physical improvements. As planning efforts continue, we envision that additional neighborhood redevelopment plans will be prepared to supplement this chapter.

downtown

Location. Downtown Barre includes the property that fronts on North Main Street from the Route 62 and Maple Avenue (Route 14) intersection to the City Hall Park triangle formed by the intersection of Washington Street (Route 302) and South Main Street (Route 14). It also includes the land between North Main Street and the Stevens Branch, and the blocks between North Main Street and Summer Street. A steep bank on the east side of Summer Street separates downtown from residential neighborhoods beyond.

Current Land Use and Development Patterns. The historic commercial blocks and major civic buildings remain largely intact around City Hall Park and along North Main Street to Depot Square. Beyond Depot Square, historic buildings are mixed with more recent construction some of which does not match the traditional development pattern of multi-story, brick-faced, block buildings built to the edge of the sidewalk. Between North Seminary Street and Maple Avenue / Route 62, the historic pattern has been significantly altered by more recent development with parking rather than buildings along most of the street frontage. There are more than 80 street-level storefronts along North Main Street from Maple Avenue to Elm and Prospect Streets.

In recent years, the city has made significant investments in our downtown. The \$17.5 million North Main Street reconstruction project has completely replaced all infrastructure within the street right-of-way from the water and sewer lines below ground to the streetlights and traffic signals overhead. This project has provided a complete face-lift to the Downtown Business District's public realm. The City Place project currently underway will be a further catalyst for downtown revitalization.

The Merchants Row area on the west side of North Main Street was created when the river was straightened and relocated further away from the downtown commercial blocks in response to ongoing flooding. The Merchants Row area is primarily used for public parking and is largely an undifferentiated expanse of asphalt. A number of downtown businesses have a secondary customer entrance from Merchants Row.

The Granite Street area along the river developed as the center of the city's granite industry in the late-1800s. The Old Labor Hall, a National Historic Landmark built in 1900 as a meeting hall for the Socialist Labor Party, is located on Granite Street along with a number of other residential buildings that remain from when this area initially developed. Most of the remaining industrial structures were built during later periods. In recent years, there has been significant private reinvestment in the Metro Way area. It is now a mixed-use area with residential, office, commercial and industrial activities.

The city owns the 10-acre Auditorium Hill property, which serves a variety of recreation and public functions. It overlooks the north end of downtown. At the south end of downtown, the Vermont State Historical Museum and the McFarland House (state office building) on either side of Washington Street overlook and serve as part of the gateway to our downtown. Two public spaces with monuments, which speak to our city's granite-working heritage, also mark the entrances to downtown.

Future Land Use and Development Patterns. Downtown Barre is the heart of our city; it is a center of commerce, culture and public life. Decisions about the future of the downtown should consider how to support and reinvigorate commercial activity and bring more people to live, work, shop and do business in

our downtown. Specifically, this plan recommends the following land use policies, actions and projects:

- A. We are fortunate to have retained a downtown with a unique image and identity, which is created by the form and character of our historic streets, blocks and buildings. These assets should be reinforced and enhanced through rehabilitation of historic buildings and redevelopment that is compatible with historic patterns.
 - A-1. Where there are 'tears' in the downtown fabric, these areas should be 'mended' with new infill development that is harmonious with the surrounding development and adds to downtown vitality (as exemplified by the City Place project). Historic building facades that have been obscured by 'tacked-on' treatments should be restored to reveal their historic quality.
 - A-2. New development should be oriented and scaled to pedestrians, and should avoid the pitfalls of blank walls adjacent to sidewalks, poorly detailed, 'throwaway' architectural quality, and parking lots disrupting the continuity of shops and attractions along North Main Street. The North Main to Summer Street Master Plan includes specific design guidance for downtown buildings, parking areas and streetscapes that should be incorporated into the city's land use regulations.
- B. In 2010, a master plan was prepared for Merchants Row in anticipation of major improvements being made once the North Main Street Reconstruction project was completed. The Merchants Row Master Plan is incorporated by reference into this plan. Efforts to implement the estimated \$3 million in recommended improvements are currently underway and should be continued. The plan calls for:
 - B-1. The creation of a continuous sidewalk along the rear entrance of the North Main Street buildings and a recreational path paralleling the railroad tracks (one of the segments of the Central Vermont Bike Path connecting Barre City and Montpelier).
 - B-2. A redesign resulting in nearly 300 parking spaces, a simplified traffic pattern, and drop-off and loading zones behind the downtown buildings, as well as landscaping, which will create a more comfortable, pleasant and attractive environment.
- C. In 2011, a master plan was prepared for a portion of the Summer Street area that recommends infill development along street frontages with connected 'parking courts' in the center of the blocks. The North Main to Summer Street Master Plan is incorporated by reference into this plan and the city's land use regulations should be revised to implement its recommendations. That plan calls for:
 - C-1. Primarily new residential development on Summer, Merchant and Elm Streets, which would replicate historic patterns with respect to building setbacks, proportions, rooflines and materials.
 - C-2. Residential buildings on these streets to be wood-framed, two- to three-story detached structures oriented to the street with a shallow front yard or garden space.
- D. The area around Granite Street, particularly the properties fronting on Granite Street, is a natural extension out from the central business district. This plan recommends development of a master plan for the area, similar to those completed for Merchants Row and Summer Street. That plan should include specific recommendations for:
 - D-1. Improved pedestrian access from North Main Street across Merchants Row and down Granite Street.
 - D-2. Opportunities to capitalize on the recreational and scenic opportunities created by the river and the historic features related to Barre City's granite industry and role in the Labor Movement. The concept of a river walk behind the Downtown Business District has been suggested in plans since the city's first Master Plan in 1964. There is also interest in improving the historic walking tour of Barre City, and this area should serve as the starting/ending point for that route.
 - D-3. Facilitating further mixed-use redevelopment of this former industrial area.

willey street

Location. The Willey Street neighborhood is a self-enclosed area bounded by Route 62 and the Stevens Branch with Willey Street as its only means of access.

Current Land Use and Development Patterns. The Willey Street neighborhood was developed in the early 20th century as the city's granite industry was thriving and remains in active use by several granite businesses. There is approximately 300,000 square feet of space in the area's granite sheds, in addition to space in multiple outbuildings.

In the midst of the industrial sites are 10 residential properties, which were originally constructed as duplexes to provide housing for granite workers. One of the homes has been converted to a single-family home, and the rest remain duplexes; seven out of ten are owner-occupied.

The city's sewage treatment plant is located on a 12-acre site along the river at the north end of the neighborhood. While this neighborhood is bounded by the river, most of the developed lands are above the flood elevation. The proposed route of the Central Vermont Bike Path travels through this neighborhood paralleling Route 62 and crossing the river to the Granite Museum.

Future Land Use and Development Patterns. Willey Street has historically been a mixed-use neighborhood. Decisions about future land use and development should seek to balance the suitability of this land for continued industrial activities with reasonable protections for nearby residents. Specifically, this plan recommends the following land use policies, actions and projects:

- A. The Willey Street neighborhood is visible from Route 62, with several industrial buildings backing up to the highway. Since they are among the first structures travelers entering the city on Route 62 see, the rear facades of these buildings create a poor 'first impression' of our community. Opportunities for rehabilitating these buildings and/or screening them with landscaping or public art should be explored to create a more attractive gateway to Barre City.
- B. Given the primarily industrial character of the neighborhood, the land use regulations should be revised to allow for expanded live-work and/or non-residential use on currently residential properties and to limit further residential development.

vine street

Location. The Vine Street neighborhood is also bounded by Route 62 and the Stevens Branch. It is accessed and bisected by Berlin and Blackwell Streets.

Current Land Use and Development Patterns. This neighborhood was also established in the early 20th century as the city's granite industry expanded. South of Berlin Street is industrial with approximately 240,000 square feet in what were once granite sheds and outbuildings. While there continues to be stone-working, the industrial activities have diversified to include trucking, warehousing, and fuel storage and distribution.

Along and north of Berlin Street is a residential area of around 65 residential properties and 100 dwellings. This includes around 50 single-family homes, 10 duplexes and several multi-unit buildings. The modest single-family homes and duplexes on small lots were constructed as housing for granite workers and their families, and remain primarily owner-occupied.

There is a small city park on Vine Street with a playground. The proposed route of the Central Vermont Bike Path crosses from the west side of Route 62 at Blackwell Street and travels through this neighborhood along

Smith Street, and continuing along the east side of Route 62. There are sidewalks along Berlin Street and some of the residential side streets. A large portion of the developed land in this neighborhood is below flood elevation. The homes around Scampini Square are particularly vulnerable to flooding and have sustained repeated flood damage.

Future Land Use and Development Patterns. The Vine Street neighborhood should continue to accommodate both industrial and residential uses. To maintain or enhance the compatibility of these uses, this plan recommends the following land use policies, actions and projects:

- A. A landscaped buffer should be established and retained between the residential and industrial properties. New or expanding industrial uses should be required to meet performance standards (noise, vibration, dust, etc.) to protect quality of life for neighborhood residents. Heavy industrial uses that have the potential to be a hazard for neighborhood residents should be discouraged and directed towards other industrial areas of the city where homes are further away.
- B. Higher-density housing in multi-unit structures should be allowed along Berlin Street to establish a transitional zone between the industrial area to the south and the single-family homes to the north. On the side streets, residential density should not increase, particularly within the flood hazard area.
- C. The industrial properties should be accessed from, and truck traffic routed onto, Blackwell Street to the greatest extent feasible.

north main street | route 62 to 6th street

Location. This diverse neighborhood is located along North Main Street from Route 62 to 6th Street and is bounded by the Stevens Branch to the west. Gunner Brook flows into the Stevens Branch just north of Blackwell Street. Most of this neighborhood is below flood elevation and these areas face the most significant flooding challenges in the city.

Current Land Use and Development Patterns. The frontage on North Main Street through this neighborhood is largely developed with commercial and industrial uses. This neighborhood also includes an industrial and commercial area on West Second Street where two granite businesses remain in operation as well as a lumberyard and warehousing activities.

There is a high-density residential neighborhood along North Seminary, Brook and Laurel Streets that is composed primarily of duplexes, triplexes and quadplexes (180 dwellings altogether). Most of these multi-family units are not owner-occupied. North Barre Manor, with 120 units of affordable senior housing, is located on North Main Street. Sixth Street is the most recent addition to this neighborhood with around 10 single-family homes built in the 1990s and early 2000s. The recently constructed Public Safety Building and adjoining Wobby Park is located on 4th Street.

Future Land Use and Development Patterns. This plan recommends the following land use policies, actions and projects:

- A. While this segment of North Main Street is anticipated to remain a commercial and light industrial corridor that accommodates auto-dependent and high-traffic retail uses, efforts should be made to reduce the expanses of asphalt along property frontages and better control access to reduce congestion, improve motorist and pedestrian safety, and create a more attractive street.
- B. The land use regulations should encourage more community-serving businesses that are oriented primarily to providing goods and services to city residents to locate in this area. The regulations should continue to support higher-density, multi-family housing in this neighborhood.
- C. Given the density of residential development at the south end of this neighborhood, including senior housing, accessible and safe pedestrian routes are critical so residents can walk to nearby businesses up and down North Main Street. Many residents in this neighborhood have little to no private outdoor space associated with their home. Residents in this neighborhood should have convenient access to a community park where people can gather and recreate. Given flooding issues, there may be a future opportunity to acquire land along the river that could become such a park.

- D. The likelihood of recurrent flooding within the lower portion of this neighborhood must be recognized. Buildings should be designed with the expectation that basements will flood.
-

north main street | city line to 6th street

Location. This area is part of the gateway to Barre City for southbound travelers on Route 302. It is bounded by the Stevens Branch to the south and the city line to the north and west. On the south side of Route 302, the rail line travels through the narrow corridor between the highway and the Stevens Branch. The terrain, with a fairly high and steep bank on the north side of Route 302 creates a natural break in the development pattern along the highway to the west in Barre Town.

Richardson Road provides access to a residential neighborhood, which is largely located in Barre Town. Jones Brothers Way provides the only access to the land between the railroad and the river.

Current Land Use and Development Patterns. There is a mix of small-scale commercial and single-family residential properties along this segment of North Main Street. The residential development on Jorgensen Lane is one of the most recent in the city and includes around a dozen single-family homes built between 2008 and 2010.

While there are sidewalks on the east side of North Main Street in portions of this area, they are disconnected from the rest of the city's sidewalk network. There is a missing segment north of Sixth Street and south of Richardson Road where the terrain adjacent to the road is steep.

A principal land use in this neighborhood is the Granite Museum, which sits on a 12-acre parcel that is a visible gateway to the city on Route 302. The museum, which is still under development, is located in the Jones Brothers Company's original 25,000 square foot granite shed built in 1895 and restored in 2002. Plans for the museum include exhibits on all aspects of the region's granite heritage - geology, technology, tools, and culture - hands-on education and training, and a sculpture garden. The planned bike path between Barre City and Montpelier would cross the Stevens Branch and enter the Granite Museum property. The open land along the river also serves a critical flood control purpose by essentially 'storing' floodwaters that would otherwise back up into the developed portions of the city.

Future Land Use and Development Patterns. Given existing natural resource constraints, this plan recommends the following land use policies, actions and projects:

- A. The land in this neighborhood should be rezoned to avoid a continuation of highway commercial strip development from Barre Town into the city and to recognize that much of the land is poorly suited for the types of development currently allowed.
 - A-1. While once a center of granite manufacturing, the land between North Main Street and the river is no longer actively used for industrial purposes and should no longer be zoned industrial or commercial. The land use regulations should facilitate use of this land by the museum and for flood control. This land also creates an opportunity for greater public recreational access to the river.
 - A-2. The land to the east of North Main Street is currently zoned for commercial use with little control over the type or scale of businesses that would be allowed. If commercial uses are to be allowed, they should be small-scale and should maintain an attractive gateway to the city.
 - A-3. There is a 15-acre undeveloped field at the city line behind the lots fronting on North Main Street. Some of this land is steep, but portions may be suitable for residential development. A planned unit development (PUD) with cottages or townhomes could be thoughtfully sited on the hillside with homes that would enjoy a view out over the river valley.
- B. Efforts should be made to connect the sidewalks in this neighborhood to the city sidewalk network, and to complete the bike path to the museum and beyond to Montpelier. The amount of traffic and lack of shoulders on Route 302 make the highway poorly suited for bicycling.

beckley street

Location. The Beckley Street neighborhood extends north from the east side of North Main Street to the city line. It includes land fronting on Beckley Street and a number of intersecting side streets.

Current Land Use and Development Patterns. This neighborhood is primarily residential and includes a mix of multi- and single-family homes (165 dwellings altogether). Most of the single-family homes are owner-occupied, while most of the multi-family properties are not owner-occupied. There are two civic properties in this neighborhood - St. Monica's Cemetery and the Mutuo club.

The pre-war neighborhoods along First, Second and Third Streets are densely developed with homes on very small lots. Most of this end of this neighborhood is below flood elevation. The homes further up the hill along Beckley Street were generally built in the second half of the 20th century on larger lots than those closer to North Main Street. There are also several larger, multi-unit buildings.

Future Land Use and Development Patterns. This plan recommends the following land use policies, actions and projects:

- A. This neighborhood should remain primarily residential with single-family and multi-family buildings at a scale and density that generally reflect the pre-war development pattern at the southern end. At the far northern end of this district, there are areas with steeper slopes and limited access where a lower residential density would be appropriate.
- B. There are opportunities for infill residential development throughout this neighborhood. Infill development should follow traditional neighborhood development patterns and should be compatible with the surrounding built and natural environment. Front yards should be maintained as green spaces and should not be converted to parking for multi-unit buildings.
- C. Multi-unit residential structures should be allowed with standards to ensure that they will be compatible with the neighborhood and if the buildings are of a size and character fairly similar to single-family homes.

farwell street

Location. The Farwell Street neighborhood includes the area between Beckley and Farwell Streets from Pleasant Street to the city line. Gunner Brook defines the neighborhood's eastern boundary. The brook flows at the base of a steep slope in the northern end of the neighborhood, which separates the city's former landfill site from Hope Cemetery.

Current Land Use and Development Patterns. There are around 170 dwellings in the Farwell Street neighborhood, 65% of which are single-family homes. Of the 130 residential properties, 83% are owner-occupied. There is a small commercial area in this neighborhood near the intersection of Farwell Street and Maple Avenue.

Canales Park, a 2-acre natural area off Pleasant Street, is located in this neighborhood. At the top of Farwell Street is a 21-acre property owned by the city that includes the closed landfill and a baseball field. Only a limited portion of this neighborhood along Brook Street and Maple Avenue have sidewalks.

Around 15 acres of hillside land adjacent to the city line remains undeveloped and largely wooded. This land was historically laid out for residential lots with planned extensions of streets like Colby Street, Beech Street and Pine Street further up the hillside. However, steep slopes and shallow depth to bedrock pose significant natural limitations that make it unlikely that these lands can be developed as planned on paper.

Future Land Use and Development Patterns. This plan recommends the following land use policies, actions

and projects:

- A. This neighborhood is envisioned to remain predominately residential.
 - A-1. There are opportunities for infill residential development in this neighborhood. Infill development should follow traditional neighborhood development patterns and should be compatible with the surrounding built and natural environment. Multi-unit residential development may be compatible with this neighborhood if the buildings are of a size and character similar to single-family homes.
 - A-2. There may be opportunities for new residential development on some of the undeveloped land in this neighborhood. Such development will need to be carefully sited and designed in response to the environmental constraints posed by steep slopes, shallow depth to bedrock, and streams. PUDs with cottages or townhomes that would fit small footprint buildings into the terrain more effectively would be more appropriate than extending the street grid and lot pattern further up the hill as once envisioned.
 - A-3. Some of the undeveloped portions of Elmwood Extension, Pine and Beech Streets are “paper streets” as described in the transportation section of this plan. A resolution to that problem will be required to permit development on these streets.
 - B. The existing commercial area should remain at its current extent and level of intensity given its location within a flood zone. Further commercial development beyond the current business properties should be limited to home-based businesses that can operate without reducing the quality of life for nearby residents. Businesses that would generate significant traffic on residential streets or noise, light, odors or other similar impacts noticeable at the property line would not be suitable in this neighborhood.
 - C. When major repairs or upgrades are made to neighborhood streets, sidewalks should be added or restored, particularly along the through streets such as Pleasant Street, Farwell Street, Perrin Street and Elmwood Avenue. Canales Park should be maintained in its natural state as a city park under the management of the city Recreation Department. Recreational use of this property should be encouraged by improving trails and providing amenities like benches and bike racks. Opportunities for re-use of the former landfill site such as production of renewable energy should be explored.
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maple avenue

Location. The Maple Avenue neighborhood is bounded by Gunner Brook to the west, a steep slope to the east and Hope Cemetery to the north. To the south, the neighborhood includes land fronting on Summer Street and Seminary Street. Maple Avenue (Vermont Route 14) is a heavily traveled street with both local and through traffic (Route 14 connects downtown to U.S. Route 2).

Current Land Use and Development Patterns. The northern portion of the Maple Avenue neighborhood is primarily residential, while the southern portion has some offices and small businesses mixed with residential uses. The southernmost properties fronting on Maple and Summer Street are part of the designated downtown. Most of the land to the east of Maple Avenue is below flood elevation.

There are around 190 dwellings in this neighborhood, the majority of which are in multi-unit structures and are rentals. Only around 60 of the residential properties are owner-occupied and 70% of dwellings are rentals. Along Maple Avenue, many of the buildings were historically constructed as duplexes. Some single-family homes and duplexes in this neighborhood have been further divided to create three or four unit buildings. Buildings fronting on Maple Avenue are built at or close to the edge of the sidewalk.

Future Land Use and Development Patterns. This plan recommends the following land use policies, actions and projects:

- A. The southern end of this neighborhood is envisioned to become increasingly mixed-use and higher density as downtown revitalization spurs growth expanding outward from the central business district.
 - A-1. Many of the structures along Maple Avenue, particularly at the southern end, are in poor condition and are

candidates for tear-down and replacement. As the form-based code is being developed for downtown, the possibility of extending it along Maple Avenue for several blocks should be explored.

- A-2. The southern portion of the neighborhood is currently zoned commercial and outside the designated downtown, the land use regulations provide little control over the type and scale of commercial development. The regulations should be revised to promote higher-density, pedestrian-oriented, mixed-use development rather than low-density, auto-oriented, single-use development.
- B. The northern end of this neighborhood is envisioned to remain primarily residential. Outside of the flood hazard area, moderate-density multi-family housing should be allowed with appropriate standards to maintain and enhance the visual character of this corridor into downtown.

hope cemetery and cow pasture

Location. This neighborhood is primarily composed of two large publicly owned properties at the city line on either side of Maple Avenue. On the west side of Maple Avenue is the 54-acre Hope Cemetery and on the east side is approximately 67 acres of undeveloped, city-owned land known as the “Cow Pasture.”

Current Land Use and Development Patterns. Hope Cemetery is discussed in several places in this plan, including in the Community Services and Amenities chapter.

The Cow Pasture serves important ecological functions in its undeveloped state. This open space provides a range of environmental services, including watershed protection, and associated stormwater and erosion control, and habitat for a variety of plant and animal species. The land also serves important social functions by providing opportunities for passive or low-impact recreation, allowing city residents to enjoy outdoor activities more typically associated with rural living. The undeveloped tract of land contributes positively to the quality and character of the City.

Recreation is a primary use of the Cow Pasture. The pasture hosts a network of trails in excess of two miles. There is a single designated public access point at the end of Maplewood Avenue. Common recreation activities include trail walking and running, dog walking, bird and wildlife watching, snowshoeing and cross country skiing, berry picking, exploring with children, mountain biking, and sledding. In addition, the Cow Pasture provides winter connectivity to the VAST trail network from Barre City, with trail maintenance provided by the Barre City SnoBees.

The Cow Pasture is bounded by several large, private, undeveloped properties. Many of the recreation trails extend beyond the Cow Pasture’s boundaries. Recreational access to neighboring properties is an integral part of the Cow Pasture’s recreation experience. Continuity with bordering undeveloped properties is an important element of the Cow Pasture’s ability to provide ecological services.

The 2013 *Barre City Cow Pasture: Inventory, Assessment and Recommendations* describes the property and resources, providing recommendations to help the City steward and plan for the future of the property. The City Council has appointed a Cow Pasture Stewardship Committee involved in grant writing; organizing volunteer work days; monitoring trail use; communicating with the public, neighbors, and city management; and proposing recommendations to the city.

Future Land Use and Development Patterns. This plan recommends the following land use policies, actions and projects:

- A. Hope Cemetery serves as a gateway to the city and its potential to bring visitors to our community is not being fully realized. The opportunity to develop a Visitors' Center and gateway signage on the city-owned property across from the cemetery should be explored.
- B. Future uses of the Cow Pasture should sustain the services and benefits the property currently provides and maintenance of this property as an open space for conservation and recreation is fundamental to realizing this goal. This designation ensures that ecological and social services and benefits continue to be realized from the property.
 - B-1. While not empirically documented, anecdotal reports and ecological evidence suggest that recreational use of the Cow Pasture is intensifying. This increase in use reflects a growing appreciation of this property and its benefits by city residents and visitors. As use of the Cow Pastures intensifies, so must management efforts. It is incumbent upon Barre City to plan for management of the Cow Pasture commensurate with the services and benefits the city derives from the property.
 - B-2. Creation of the Cow Pasture Stewardship Committee is a strong statement of support for the pasture's management.
 - B-3. Future planning of the Cow Pasture must establish it as an enduring conservation and recreation resource supported by the resources, policies, and institutions necessary to maintain its ecological and social qualities.

merchant street

Location. This neighborhood includes land along Merchant Street and Warren Street. Much of this area is separated from adjoining neighborhoods by significant changes in elevation.

Current Land Use and Development Patterns. The Merchant Street neighborhood is primarily residential with around 100 homes. About 80% of the residential properties in this neighborhood are owner-occupied. About 60% of the dwellings in this neighborhood are single-family homes. Multi-family structures in this neighborhood contain two to four units.

There is a small commercial area with several businesses near the intersection of Maple Avenue and Merchant Street. There are two baseball fields used by local youth teams adjacent to the businesses. The land used for the fields remains privately owned.

The city owns several parcels of undeveloped wooded land on Merchant Street. The parcels on the east side of the street are part of a steep hillside with no development potential, but the half-acre parcel on the east side is only moderately sloped.

Future Land Use and Development Patterns. This plan recommends the following land use policies, actions and projects:

- A. This neighborhood is envisioned to remain predominately residential.
 - A-1. This neighborhood is currently zoned for a higher density of residential development than presently exists and multi-family housing is allowed, which creates opportunities for the conversion or replacement of existing single-family homes with multi-unit buildings. While some infill potential and small multi-family buildings may be desirable, the land use regulations should be revised to maintain a density and scale of residential development that is not substantially greater than what currently exists. Front yards should be maintained as green spaces and should not be converted to parking for multi-unit buildings.
 - A-2. The feasibility of developing the city-owned parcel on the east side of Merchant Street for affordable housing

should be explored.

- B. The existing commercial area should remain at its current extent and level of intensity given its location in a residential area. Further commercial development beyond the current business properties should be limited to home-based businesses that can operate without reducing the quality of life for nearby residents.

currier park

Location. This neighborhood, just beyond the central business district, includes Currier Park and the properties that face the park, as well as blocks to the north and west of the park. A stream flows through this area.

Current Land Use and Development Patterns. The Currier Park neighborhood is primarily residential with around 265 homes. This neighborhood has experienced a significant conversion of residential properties from single-family to multi-family and from owner-occupied to rental units in recent decades. Currently there are only around 30 single-family homes remaining and about 45% of residential properties are owner-occupied in the neighborhood. The change in the character of this neighborhood is a harbinger of what could occur in other residential neighborhoods in the city that are similarly zoned to allow for higher density residential than currently exists and multi-family buildings with few limitations on their scale.

There are a few non-residential uses in the neighborhood, but these are primarily businesses operated from a residential property such as professional offices or personal services. There is also a city-owned playground at the former Matthewson school on Elm Street.

Currier Park, Barre City's formal 'village green', is located in this neighborhood. The properties around this green form the Currier Park Historic District, which is listed in both the state and national historic registers.

Future Land Use and Development Patterns. This plan recommends the following land use policies, actions and projects:

- A. The properties fronting on Currier Park and adjacent to the downtown business district are suitable for a mix of residential and compatible, low-intensity business uses such as professional offices or personal services. Residential character and historic buildings within this district should be maintained. Front yards should be maintained as green spaces and should not be converted to parking for nonresidential or multi-family buildings
- B. While there should be flexibility in the use of the existing buildings, efforts should be made retain the historic structures and character in the Currier Park District. The city's design review district should be extended to include the properties within the historic district.

tremont street

Location. The Tremont Street neighborhood includes property adjacent to Tremont Street and north to the city line. A stream forms the eastern boundary of the neighborhood. Most of the land within this area has moderate to steep slopes.

Current Land Use and Development Patterns. The Tremont Street neighborhood is entirely residential with around 325 homes. Approximately 80% of residential properties in this neighborhood are owner-occupied. Around 60% of the dwellings in this neighborhood are single-family homes and 40% are in multi-unit buildings. Most of the multi-family units are in buildings with four or fewer units.

There is a major parcel of privately-owned, undeveloped land in the northern portion of this neighborhood, the Perrin farm, which includes around 47 acres at the city line. A small portion is fairly steep and wooded, but most of the land is gently to moderately sloped open pasture.

Future Land Use and Development Patterns. This plan recommends the following land use policies, actions and projects:

- A. This neighborhood is envisioned to remain predominately single-family, owner-occupied homes and multi-unit buildings.
- A-1. Most of this neighborhood is currently zoned for a higher density of residential development than presently exists and multi-family housing is allowed, which creates opportunities for the conversion or replacement of existing single-family homes with multi-unit buildings. While some infill potential and small multi-family buildings may be desirable, the land use regulations should be revised to maintain a density and scale of residential development that is not substantially greater than what currently exists. Maintaining or increasing the owner-occupied percentage of housing units to maintain the neighborhood character of the area would be desirable. Front yards should be maintained as green spaces and should not be converted to parking for multi-unit buildings.
- A-2. If the Perrin farm were to be developed, it would be desirable to extend the existing city street network and continue the existing traditional neighborhood development pattern into this property to the extent feasible given the terrain. Returning some or all of the property to more active agricultural use should also be encouraged, particularly for local food production. Portions of the property could be considered prime agricultural soils. Other portions may not be possible to develop due to the terrain and soil type. It would be desirable to allow the Tremont Street and Camp Street neighborhood residents access to the Cow Pasture property. Many residents currently access the Cow Pasture property through the Perrin property. In the case of new development, care should be taken to minimize stormwater run-off, protect wetland functions and meet the open and green space goals outlined in the Natural Environment chapter of this plan
- B. When major repairs or upgrades are made to through streets in this neighborhood, sidewalks should be added.

camp street

Location. The Camp Street neighborhood encompasses the residential blocks in the northeast corner of Barre City. The neighborhood is bounded by a stream on the west and Elmwood Cemetery to the south.

Current Land Use and Development Patterns. The Camp Street neighborhood is entirely residential with nearly 280 homes. Around 95% of the residential properties in this neighborhood are developed with single-family homes and 92% are owner-occupied. The residential areas in this neighborhood continue north into Barre Town. The city's sidewalk network does not extend into most of this neighborhood.

Future Land Use and Development Patterns. This plan recommends the following land use policies, actions and projects:

- A. This neighborhood is envisioned to remain predominately single-family residential with only limited growth in the number of homes.
- B. When major repairs or upgrades are made to through streets in this neighborhood, sidewalks should be added. Camp Street particularly would benefit from sidewalks as it carries a greater amount of, and faster moving, traffic between Barre City and Barre Town than other streets in the neighborhood.

washington street

Location. The Washington Street neighborhood includes the properties fronting on Route 302 east of the Central Business district and the adjoining blocks. A steep elevation change defines the southern boundary of this neighborhood.

Current Land Use and Development Patterns. The Washington Street neighborhood is a mixed-use area. There are a number of small offices, primarily in converted residences, along Washington Street, as well as a few other small businesses.

There are about 565 residences in this neighborhood of which about 40% are single-family homes. Around 71% of residential properties are owner-occupied, including a substantial number of owner-occupied rental properties (90% of multi-unit structures are owner-occupied).

Elmwood Cemetery, which is owned by the city, is located in this neighborhood. Adjacent to the cemetery is a small city-owned park, which is developed with a baseball field.

Future Land Use and Development Patterns. This plan recommends the following land use policies, actions and projects:

- A. The properties fronting on Washington Street as it extends outward from the downtown business district are suitable for a mix of residential and compatible, low-intensity business uses such as professional offices or personal services. Current zoning along this segment of Washington Street should be revised to allow appropriate nonresidential uses, primarily within existing buildings.
- B. The gateway along Washington Street at the city's eastern boundary is constrained by steep slopes and the river defining a narrow corridor. This corridor is envisioned to remain a mix of residential and small, low-intensity commercial uses. Efforts should be made to improve the aesthetic character of this gateway to the city. The current commercial zoning along this segment of Washington Street needs to be revised to provide better control over the scale, intensity and character of development.
- C. The city owns two acres of parkland adjacent to Elmwood Cemetery, which is only partially occupied by the baseball field. Opportunities for fully utilizing this property for recreational use by neighborhood residents should be explored.

south main street | downtown to mill street

Location. The South Main Street neighborhood south of downtown includes land along South Main Street (Vermont Route 14). The Stevens Branch forms the western boundary of the neighborhood. A steep hillside and the railroad form the eastern boundary. The convergence of the Jail Branch with the Stevens Branch of the Winooski River occurs within this neighborhood.

Current Land Use and Development Patterns. The South Main Street neighborhood is a mixed-use area with industrial, commercial and residential uses interspersed. There is more than 200,000 square feet of commercial and industrial space in this neighborhood, including the industrial complex on Wall Street and several former warehouse buildings along the rail line.

There are about 190 residences in this neighborhood; approximately 40% of the dwelling units are located in Barre Housing Authority's Tilden House, an apartment building that provides affordable housing to elderly and disabled residents. Around 31% of residential properties are owner-occupied; around 92% of dwellings in the neighborhood are rental units.

The city owns a 0.2-acre parcel at the corner of South Main Street and Hill Street that is currently used as a

parking lot. There are sidewalks along South Main Street through the neighborhood. However, in many locations the sidewalks are poorly delineated due to undefined parking areas and/or excessively wide access to adjoining properties.

Future Land Use and Development Patterns. This plan recommends the following land use policies, actions and projects:

- A. This neighborhood is envisioned to remain mixed use with industrial, commercial and multi-family residential uses. The land use regulations should encourage more community-serving businesses that are oriented primarily to providing goods and services to city residents to locate in this area. The regulations should continue to support higher-density, multi-family housing in this neighborhood.
- B. Streetscape, sidewalk and access management improvements are needed along South Main Street throughout this neighborhood. Efforts should be made to reduce the expanses of asphalt along property frontages and better control access to reduce congestion, improve motorist and pedestrian safety, and create a more attractive street.
- C. Given the density of residential development in this neighborhood, including Tilden House, accessible and safe pedestrian routes are critical so residents can walk into downtown and to nearby businesses up and down South Main Street.
- D. There is very little greenspace within this neighborhood and many residents in this neighborhood have little to no private outdoor space associated with their dwelling. The need for the city parking located at the Hill Street intersection should be assessed and opportunities for ‘greening’ that site should be explored. Access to nearby Rotary Park via Mill Street should be improved for neighborhood residents.

south main street | mill street to city line

Location. This neighborhood includes the land between the Stevens Branch and the railroad along South Main Street. The northern boundary of this neighborhood is defined by a steep hill and the southern boundary is the city line.

Current Land Use and Development Patterns. The South Main Street neighborhood from Mill Street to the city line includes a mix of uses along the South Main Street and residential blocks behind South Main Street. The businesses in this neighborhood are primarily offices and personal services, including one of Central Vermont Medical Center’s primary healthcare offices.

There are about 150 residences in this neighborhood, mostly single-family homes. Around 75% of residential properties are owner-occupied. The residential blocks east of South Main Street were developed in the mid-20th century, largely with ranch homes. This neighborhood is close to the Barre Elementary and Middle School, Rotary Park, and Barre High School making it an excellent area for families with children. However, the neighborhood streets were constructed without sidewalks and the hill makes it a challenging walk to the elementary school and park.

Future Land Use and Development Patterns. This plan recommends the following land use policies, actions and projects:

- A. The blocks to the east and west of South Main Street are envisioned to remain predominately single-family residential with only limited growth in the number of homes. The city’s regulations should be revised to limit opportunities for conversion of single-family homes to multi-unit buildings.

- B. The properties fronting on South Main Street in this neighborhood should be rezoned to avoid conversion to a highway commercial strip. The current commercial zoning provides little control over the type or scale of businesses that would be allowed. If commercial uses are to be allowed, they should be small-scale and should maintain an attractive gateway to the city.
 - C. When major repairs or upgrades are made to neighborhood streets, sidewalks should be added or restored along most through streets.
-

ayers street

Location. The Ayers Street neighborhood includes Spaulding Union High School and is bounded to the south by the Jail Branch and to the north by a steep bank.

Current Land Use and Development Patterns. The Spaulding Union High School occupies a 21-acre site along the Jail Branch that includes the school and associated sports fields. The district offices are located on a half-acre lot across the street from the school. There are sidewalks along Ayers Street from the school to South Main Street, but there remain opportunities for improved pedestrian connections to the school from surrounding neighborhoods and within the school property itself.

Ayers Street is developed with a small residential neighborhood of around 65 homes. Around 75% of residences are in multi-unit structures, mostly duplexes. About 64% of residential properties in the neighborhood are owner-occupied.

There are several businesses located in this neighborhood.

Future Land Use and Development Patterns. This plan recommends the following land use policies, actions and projects:

- A. This neighborhood is envisioned to remain predominately residential with only limited growth in the number of homes.
 - B. Locating or expanding businesses on Ayers Street that would increase traffic and interfere with access to and activities at the school should be discouraged.
 - C. Pedestrian and bicycle connections to the school should be improved with sidewalks extended from Ayers Street to surrounding neighborhoods.
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boynton street

Location. The Boynton Street neighborhood is primarily an industrial area south of the Jail Branch and east of South Main Street.

Current Land Use and Development Patterns. Several heavy industrial uses are located in the Boynton Street neighborhood including a trucking depot and granite manufacturing. There is approximately 300,000 square feet of industrial space in this neighborhood. Unlike some of the other industrial areas in the city, there are few residential properties within or close by this neighborhood that have the potential to be negatively affected by heavy industrial activities. The neighborhood sits at a lower elevation than the residential blocks south of Circle Street. Several of the industrial properties have a wooded buffer along Circle Street, which also reduces impacts. The primary opportunity for conflict with the adjoining residential neighborhood is truck traffic. While the industrial properties front on Boynton rather than Circle Street, a railroad underpass prevents truck access to the industrial properties via Boynton Street.

Future Land Use and Development Patterns. This plan recommends the following land use policies, actions

and projects:

- A. This neighborhood is envisioned to remain available for continued heavy industrial use with no residential uses allowed.
 - B. The existing vegetative buffer that exists between the industrial properties and adjoining residential lots should be maintained and enhanced as needed to minimize the impact of heavy industrial activity on residents. The riparian buffer along the Jail Branch should also be maintained and enhanced to reduce run-off and pollutants entering the stream from industrial lands.
 - C. Opportunities to improve access to the industrial properties in this neighborhood via Boynton Street should be explored as a means of reducing truck traffic on Circle Street.
 - D. Opportunities for ‘greening’ the school’s overflow parking lot on Batchelder Street and demonstrating low impact development techniques for managing stormwater should be explored.
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circle street

Location. The Circle Street neighborhood includes the residential blocks south of Circle Street and along Batchelder Street in the southeast corner of the city. The steep banks of the Jail Branch form the northwest boundary of this neighborhood. Much of the undeveloped land in this area is extremely steep leading up to a quarry across the city line in Barre Town.

Current Land Use and Development Patterns. The Circle Street neighborhood is largely residential. There are two industrial areas used for granite manufacturing in this neighborhood: one at the intersection of Batchelder and Lewis Streets and the other at the end of Circle Street near South Main Street. The neighborhood includes about 160 dwellings. Around 83% of residential properties are owner-occupied. About 60% of residences are detached, single-family homes. Westview, which is a 30-unit condominium development, is located off Batchelder Street. There is 11 acres of undeveloped wooded land off Batchelder Street that is relatively level. It backs up to the quarry across the city line in Barre Town.

This neighborhood is close to the Barre Elementary and Middle School, Rotary Park, and Barre High School making it an excellent area for families with children. However, like the other residential blocks east of South Main Street, there are no sidewalks connecting this neighborhood to the nearby schools, parks and other destinations.

Future Land Use and Development Patterns. This plan recommends the following land use policies, actions and projects:

- A. This neighborhood is envisioned to remain predominately residential with the two existing industrial sites continuing in their current use and extent but not expanding further into the residential neighborhood.
 - B. There are opportunities for residential infill and new development in this neighborhood, particularly PUDs with cottages or townhomes that would fit small footprint buildings into the remaining undeveloped land.
 - C. When major repairs or upgrades are made to neighborhood streets sidewalks should be established along most through streets.
-

rotary park

Location. The Rotary Park neighborhood is located on the west side of the Stevens Branch at the south end of the city. Spaulding Falls, a very scenic section of the river, is located in this neighborhood at the northern boundary of Rotary Park.

Current Land Use and Development Patterns. The Rotary Park neighborhood is largely comprised of land owned by the city and school district. The Barre City Elementary and Middle School straddles the line between Barre City and Town. The city-owned Rotary Park includes nearly 20 acres developed with a variety of recreation facilities. The park includes a significant amount of frontage on the river.

The Central Vermont Bike Path travels past the school and through the park on a former railbed. This one-mile segment of the path begins at Bridge Street in Barre Town and currently ends at Fairview Street. Besides the path, which is currently incomplete, pedestrian access to the school and park from other city neighborhoods is challenging.

This neighborhood also includes several acres of undeveloped, private land at the end of Brooklyn Street, most of which is steep. There are around 15 homes and a small industrial area near the river accessed via Mill Street. A couple of acres of undeveloped land above the flood elevation remain along Mill Street that have potential for infill development.

Future Land Use and Development Patterns. This plan recommends the following land use policies, actions and projects:

- A. This neighborhood is envisioned to remain predominately used for civic purposes with a small residential neighborhood that has some growth potential. This neighborhood would be particularly well-suited for family housing given the proximity to the school and park. The industrial site along Mill Street is entirely below flood elevation and is not envisioned to expand.
- B. Pedestrian and bicycle access to this neighborhood should be improved to the greatest extent feasible, including the completion of the bike path through the city, formalizing the connection from Brooklyn Street to the park and school, and creating access from Allen Street.

brooklyn street

Location. The Brooklyn Street neighborhood is bounded by the Stevens Branch to the east and a rising slope to the west. It includes the residential areas along Brooklyn Street, Fairview Street and Prospect Street, as well as the industrial area on Burnham Street.

Current Land Use and Development Patterns. This is a neighborhood that includes a developed industrial area along the river with residential streets extending up the surrounding hillside. The industrial area includes around 80,000 square feet of space, including the city's highway and public works facility.

There are about 170 homes in this neighborhood and around one third of those are single-family homes. Of the multi-unit residential properties, around 30% are owner-occupied. Most multi-unit buildings in this neighborhood have two to four units.

A segment of the Central Vermont Bike Path travels on the former railbed north from the school to Fairview Street. Between Fairview Street and Prospect Street, a short portion of the railbed was sold back to adjoining landowners when the rails were removed. The city owns the rail bed to the north of Prospect Street.

Future Land Use and Development Patterns. The Brooklyn Street neighborhood should continue to accommodate both industrial and residential uses. To maintain or enhance the compatibility of these uses, this plan recommends the following land use policies, actions and projects:

- A. A landscaped buffer should be established and retained between the residential and industrial properties and the riparian buffer should be maintained or enhanced along the river. New or expanding industrial uses should be required to meet performance standards (noise, vibration, dust, etc.) to protect quality of life for neighborhood residents.

- B. Higher-density housing in multi-unit structures should be allowed along Prospect Street to establish a transitional zone between the industrial area to the north and the single-family homes to the south.
 - C. When major repairs or upgrades are made to neighborhood streets sidewalks should be established along most through streets. The pedestrian connection from Brooklyn Street to the park and school should be formalized and improved. To continue construction of the bike path, the city will need to either acquire a right-of-way across the privately-owned segment of the former railbed or re-route the path. Completion of the bike path is a high priority for the city.
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allen street

Location. The Allen Street neighborhood includes the land along Allen Street and Prospect Street south to the city line.

Current Land Use and Development Patterns. The Allen Street neighborhood is primarily a residential and agricultural area. There is a single industrial property at the end of Granite Street that continues to be used for granite manufacturing.

There are about 180 homes in this neighborhood including 49 affordable townhouse units in Barre Housing Authority's Green Acres development. About half of the residences in this neighborhood are single-family, detached homes and these properties are almost entirely owner-occupied. Around 87% of all the residential properties in the neighborhood are owner-occupied.

There are approximately 70 acres of undeveloped land in the southern portion of this area at the city line, 45 acres of which is part of the Booth Brothers farm. Another 20 acres has been subdivided with the original intent of establishing a business park, but remains in agricultural use. The remaining five acres includes steep wooded land to the south and east of Portland Street that is poorly suited for development.

The city-owned Garfield playground is located on Lincoln Avenue and the city also owns a small, steep, undeveloped parcel nearby. These properties back up to the former railbed, which is a planned spur route for the Central Vermont Bike Path. The segment of former railbed through this neighborhood was acquired by adjoining property owners, which will likely necessitate some re-routing of the bike path in this area.

Future Land Use and Development Patterns. This plan recommends the following land use policies, actions and projects:

- A. The Allen Street neighborhood is envisioned to remain a primarily residential neighborhood. Development of a small, neighborhood commercial center should be considered if significant additional residential development is proposed on the remaining undeveloped land in this neighborhood.
 - B. There should be a reconsideration of the future use of the land at the city line as a business park given the location and availability of space in existing commercial/industrial sites in the city. If it is determined that this land is more suitable for residential development, it should be re-zoned from industrial/commercial.
 - C. Pedestrian and bicycle access to the elementary and middle school should be established from Allen Street.
-

country way

Location. The Country Way neighborhood includes land south and east of Prospect Street to the city line.

Current Land Use and Development Patterns. The Country Way neighborhood is predominately residential and includes some of the most recently constructed homes in the city. A major residential subdivision began development in this part of the city in the 1990s and a few vacant lots remain within the subdivision.

There are around 180 homes in this neighborhood, approximately 135 of which are detached single-family homes that are almost entirely owner-occupied. The 36-unit Fecteau Circle townhouse development is also part of this neighborhood. Non-residential uses in this neighborhood include the Rowan Court Health and

Rehabilitation Center located off Prospect Street and a radio station located at the end of Jacques Street.

There are around 35 acres of undeveloped land in this area most of which would be suitable for residential development. Development of this property would be a continuation of the existing subdivision. It is likely that access to the remaining undeveloped land would be from Country Way rather than from Prospect Street given the terrain. The undeveloped land on the east side of Prospect Street is associated with the electric substation located across the street in Barre Town. Should the existing substation need to be expanded or replaced, it is likely the new facility would be located on this land.

Future Land Use and Development Patterns. This plan recommends the following land use policies, actions and projects:

- A. The Country Way neighborhood is envisioned to remain a single-family residential neighborhood with further residential development compatible in density and form with the existing homes.
- B. If a significant number of additional homes are to be accessed via Country Way, there should be consideration of creating a second access point to the subdivision to ensure adequate emergency access.
- C. The streets built as part of the Country Way subdivision did not include sidewalks. Future streets or major upgrades should incorporate sidewalks.

bailey street

Location. The Bailey Street neighborhood includes portions of the former Bisson farm in the southwest corner of the city.

Current Land Use and Development Patterns. This neighborhood is largely undeveloped agricultural land. There has been some fairly recent residential development along Bailey Street, but around 200 acres of land remains in agricultural use and is leased to the Booth Brothers Farm (located across the city line in Barre Town). There are approximately 35 homes along Bailey and Prospect Streets in this neighborhood. These are almost entirely owner-occupied, detached, single-family homes.

Future Land Use and Development Patterns. This plan recommends the following land use policies, actions and projects:

- A. The Bailey neighborhood is envisioned to remain residential and agricultural. There is opportunity for new low- to moderate-density residential development that could include higher-end housing in a rural setting with views out over the river valley. This neighborhood would be a suitable location for a planned unit development that would cluster homes and conserve open space.
- B. Consideration should be given to the benefits of preserving farmland, and the ability to produce local food, in close proximity to the city.

west hill

Location. The West Hill neighborhood includes the steep lands south of Route 62, as well as a narrow strip of city-owned land on the north side of Route 62 between the highway and the river.

Current Land Use and Development Patterns. This neighborhood is almost entirely undeveloped woodland. This area was once the site of a small ski center, which operated into the 1970s. The single building at the end

of Railroad Street was constructed as the lodge. Given the steep terrain and limited access, this area of the city has very limited development potential.

Future Land Use and Development Patterns. This plan recommends the following land use policies, actions and projects:

- A. The West Hill neighborhood is envisioned to remain essentially undeveloped. Opportunities for using this land for recreation should be explored.

berlin street

Location. The Berlin Street neighborhood includes land north of Prospect Street between Berlin Street and Bassett Street.

Current Land Use and Development Patterns. The Berlin Street neighborhood is entirely residential. There are 225 dwelling units in this neighborhood, which includes 120 units of affordable housing in the Highgate Apartments. The remaining homes are primarily owner-occupied, detached, single-family homes. Most of the undeveloped land remaining in this area is quite steep and has limited potential for further residential development.

Future Land Use and Development Patterns. This plan recommends the following land use policies, actions and projects:

- A. Little additional development is anticipated to occur with the Berlin Street neighborhood. The city's regulations should be revised to limit opportunities for conversion of single-family homes to multi-unit buildings.
- B. When major repairs or upgrades are made to neighborhood streets, sidewalks should be established along most through streets.

blackwell street

Location. The Blackwell Street neighborhood is bounded by Route 62 and the Stevens Branch to the east and the former railroad bed to the west.

Current Land Use and Development Patterns. This is a mixed-use neighborhood with industrial, commercial and residential uses in close proximity. There is about 70,000 square feet of industrial space in this neighborhood.

There are approximately 160 dwellings in this neighborhood, 60% of which are single-family homes. Of the multi-unit residential properties, most are between one and four units and around half are owner-occupied. This is one of the highest density single-family neighborhoods in the city.

Future Land Use and Development Patterns. The Blackwell Street neighborhood should continue to accommodate both industrial and residential uses. To maintain or enhance the compatibility of these uses, this plan recommends the following land use policies, actions and projects:

- A. A landscaped buffer should be established and retained between the residential and industrial properties. New or expanding industrial uses should be required to meet performance standards (noise, vibration, dust, etc.) to protect quality of life for neighborhood residents. Given the existing mixed-use nature of this district, re-zoning the industrial property to allow for commercial uses in addition to industrial uses should be considered.
- B. Given the residential density of this neighborhood, improved access to parks and pedestrian/bicycle routes is important. When major repairs or upgrades are made to neighborhood streets, sidewalks should be established along most through streets. Completion of the bike path would connect neighborhood residents to other parks and greenspace.