

SECTION 2: STRATEGIC PLAN

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 physically constrained lands (i.e. steep slopes), and environmentally sensitive areas that pose substantial constraints to development. They also are an important component of the city's open space network. There is the presence of important mapped forest integrity blocks (areas of forest not currently developed for non-forest use) within the City, and these lands help minimize forest fragmentation and help promote ecological function to the area.
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. Along with forest blocks, there are important habitat connectors throughout the city that are road segments bordered by vegetation with little development that is buffered to connect to forest blocks.
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.
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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 flood-prone 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 revised Unified Development Ordinance requires that existing vegetation be maintained or new vegetation established along rivers and streams.
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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. The benefits to having forest blocks in the city is that these areas provide habitat for a variety of species, and provide necessary forest cover to allow wildlife to travel in search of food, mates and wintering grounds.
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. The benefits to having forest blocks on private property is that the landowner can control and aid in forest and wildlife management.
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 remaining 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. Encouraging landowners to plant or allow re-growth of appropriate vegetation along eroding river or stream banks and banks with no buffer.
 - A-2. Mitigating impacts of stormwater entering streams and rivers.
 - A-3. 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.
 - C. Conservation efforts should continue in areas where there are priority interior forest blocks as well as those areas such as the Cow Pasture are prioritized.
- 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 2017 Hazard Mitigation Plan.
 - D. Implement the remaining recommendations of the 2009 Stevens Branch River Corridor Management Plan to maintain or restore the natural condition and function of the river corridors.
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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: No action taken to date.

Timing: 2022

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. Develop and adopt a river management plan.

Status: No action taken to date.

Timing: 2023

Partners: City Planner, Planning Commission, Friends of the Winooski River, CVRPC

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.

3. Develop and adopt a citywide Open Space Plan.

Status: No action taken to date.

Timing: 2022

Partners: City Planner, Planning Commission, City Council

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

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

Status: Underway for Summer and Fall 2020.

Timing: 2023

Partners: Consultants; Public Works Director; Recreation Committee; Paths, Routes and Trails Committee

Notes: The Metro Way Multi-Use Path has been designed and construction will occur during the 2020 construction season. This path will be a continuation of the multi-use path off the Enterprise Alley parking lot and will start at the intersection of Metro Way and Williams Lane, and will end at Prospect Street.

5. Complete the projects listed in the 2018 Central Vermont Tri-Town Stormwater Master Plan.

Status: No action taken to date.

Timing: 2023

Partners: CVRPC, City Planner, City Engineer, City Council

Notes: There are 72 stormwater best management practices sites that range from small changes to large construction type installments. Working on a few each year would go a long way to meeting those challenges that were identified in the Plan.

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/100 ml

In 2017: 256 mpn/100 ml

Target for 2022: 77 mpn/100 ml (This is the Vermont water quality standard that indicates water is safe for swimming.)

2. **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. With the increase in flooding events, the number of listed structures has increased. *Source: Ned Swanberg, Vermont Dept. of Environmental Conservation Floodplain Manager*

In 2010: 8 listed structures

In 2018: 26 listed structures

Target for 2024: 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.** 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 1960’s, 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 1980’s, and those efforts are still 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 Center 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. **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 will help 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.
2. **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.
3. **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, 84,000 square foot mixed-use office building was completed in early 2014. This building now houses VTrans with a 15-year lease agreement, along with a health-based business in the back.
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 continue. 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 has allowed 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. TIF funds were used to develop the Campbell Place parking lot, the Enterprise Aly redevelopment, the Keith Avenue Parking lot (in lieu of a parking structure) and the Pearl Street Pedestrian Way.
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. With the adoption of the new Unified Development Ordinance (zoning and subdivision), the Planning Commission expanded the designated Downtown, and the City will pursue the necessary revision.

7. **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. 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-3. 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-4. Encourage construction of new housing downtown, primarily on the upper floors of new and existing mixed-use buildings.
 - A-5. Ensure that infill development will be harmonious with the scale, density and character of the surrounding neighborhood.
 - A-6. 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 (Vermont Energy and Climate Action Network) Energy Planning and Implementation Guidebook for Vermont Municipalities.
 - B. 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.
 - C. Promote investment in the city's vacant, obsolete or under-utilized buildings and properties.
 - C-1. Encourage the maintenance of the city's existing housing stock and the rehabilitation of deteriorating or substandard housing.
 - C-2. Continue efforts to remediate polluted sites and encourage brownfield redevelopment through partnerships with state, federal and private entities.

D. Adopt a 'Complete Streets' policy and undertake projects to make Barre City a more pedestrian- and bicyclist-friendly community.

D-1. Complete construction of the planned bike path through the city.

D-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 Merchants Row project.

Status: Planning for, including some of the environmental studies have been completed.

Timing: 2021.

Partners: City Planner, Planning Commission, City Manager, City Council, Public Works Director

Notes: Potential grant funding should be pursued, and the design phase of the project could be underway in 2021.

2. Update and implement the North Main to Summer Street Plan.

Status: plans have been completed for this project, and the plan was endorsed in March of 2012.

Timing: 2021.

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

Notes: Downstreet Housing has built their office/apartment building in the area this plan talks about, as well as the City having constructed the Pearl Street Pedestrian Way. With these changes, the plan should be revisited and revised as necessary to update the goals and desires this plan sets forth.

2. Complete review for implementation of a Design Review Committee.

Status: No action to date.

Timing: 2021

Partners: Planning Director, Permit Administrator, Development Review Board, Planning Commission, Barre Historical Society

Notes: Look into creating a design review committee as laid out in the Unified Development Ordinance. Their work would assist the Planning Department and the Development Review Board with issues related to the designated downtown historic district and other related items.

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: Planning Director*

In 2010: 15%
In 2019: 12%
Target for 2025: 5%