

TOWN OF BARRE VERMONT

Chartered in 1781

2014 TOWN PLAN



Adopted
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www.barretown.org

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1. INTRODUCTION

1.1 THE BARRE TOWN MUNICIPAL PLAN

The Barre Town Municipal Plan (the "Plan") is a guide to long range land use and development in the Town and is a plan which reflects the vision and the values of its citizens. By state law, town plans must be reviewed, revised and re-adopted every five years or face expiration status, the consequence of which is explained below. This 2014 document is consistent with the statutory and community related goals as authorized by the Vermont Planning and Development Act, 24 VSA, Chapter 117 § 4381 as follows:

The Development Act and Town Plans are intended to "encourage the appropriate development of all lands... in a manner which will promote the public health, safety against fire, floods, explosion and other dangers, morals, prosperity, comfort, convenience, efficiency, economy and general welfare, and to provide a means and method for the municipalities and regions of this state to plan together... and to implement those plans."

The Plan reflects an effort to lay-out goals, recommendations and possible policies for future growth and to do so in a comprehensive, coordinated and cooperative fashion while promoting the common good and respecting the rights of individual land owners. There are a number of topics addressed in the Plan including the following: present and future land uses; constraints in land use due to terrain; the availability of public utilities and services; the protection of the environment and natural resources; compatibility of land uses between adjacent parcels and neighboring municipalities; public health and safety; preservation of community character; economic development; educational facilities; energy; housing; recreation; governance; and the community's role within the region. The Plan also attempts to balance the needs of the various components where they may be considered contrary to one another.

Title 24, Chapter 117, of Vermont Statutes Annotated (VSA), Section 4382, requires that municipal plans include the following elements: (1) a statement of objectives, policies and programs; (2) a land use plan; (3) a transportation plan; (4) a utility and facility plan; (5) a statement of policies on the preservation of rare and irreplaceable natural areas, scenic and historic features and resources; (6) an education facilities plan; (7) a recommended program for the implementation of the objectives of the development plan; (8) a statement indicating how the plan relates to development trends and plans for adjacent municipalities, the area and the region; (9) an energy plan; (10) a housing element which includes a recommended program for addressing low and moderate income persons' housing needs; (11) an economic development plan. Each of these elements is addressed in separate chapters or sections of this Plan.

The foundation for the first formal Barre Town Municipal Plan in the late 1980's was a study cooperatively contracted by Barre Town and Barre City through a state-funded grant and performed by Humstone Squires Associates in 1989. State planning laws have changed extensively since then and now prescribe many new goals. Further, Regional Planning Commissions are required to help municipalities prepare and update municipal plans and, when requested, review such plans for formal approval by the commission. While a duly adopted plan can be used to guide development and serve as evidence in Act 250 and Section 248 hearings, only municipalities with a plan *approved* by their Regional Planning Commission are eligible for Municipal Planning Grants and Community Development Block Grants. In addition, State agencies proposing projects must consider *approved* local plans before proceeding. Regardless of whether a locally adopted plan is *approved* by the Regional Planning Commission, it is still in effect. The previous version of the Barre Town Plan was adopted in 2008.

Although the Plan itself is the final document, there is as much or more value in the process of engaging stakeholders along the way. Viewed as a series of steps, this includes:

1. Formulating the planning program which seeks public participation.
2. Collecting and analyzing background information that identifies the community's problems and opportunities using a broad resource of citizens, technicians and stakeholders.

3. Establishing goals and objectives related to the eleven required elements of a plan.
4. Outlining recommended actions to achieve the goals and objectives.
5. Creating an implementation program which may include both non-regulatory and regulatory activities.
6. Adopting the plan – a process which includes public hearings by both the Planning Commission and the Select Board which is the adoption authority.
7. Implementing the plan to carry out the recommendations.
8. Evaluating the plan and planning program which results in the cycle starting anew.

The Plan includes policies, goals, objectives and programs needed to guide the current and future development of the community.

1.2 GOALS

The goals, objectives and programs of the 2014 Barre Town Plan are a reflection of the values and vision of its public-spirited citizens and elected officials.

The review of proposed developments, buildings, renovations and other land use projects and the creation, implementation and enforcement of land use regulations and Bylaws in Barre Town shall reflect the following goals:

1. Growth is inevitable and desirable; it should be managed in such a way so as not to burden the capacity of public utilities, facilities, services and infrastructure.
2. The Town's allocated capacity at the Barre City Sewer Treatment plant and the Town's system of sewer mains should be planned, improved,, and maintained so as to accommodate anticipated residential, commercial, industrial growth and development.
3. Growth and development should be planned and managed so as to respect, enhance (if possible) and minimize adverse effect on visual beauty and natural areas including land based recreation. The Town wishes to ensure that all development include the provision of appropriate landscape plans to screen and enhance the aesthetics of residential and commercial areas.
4. The Town should encourage economic development in a manner which keeps pace with the employment needs of Town residents and the Central Vermont labor market in order to reduce the Town's reliance on its residential tax base and strengthen and diversify the local economy.
5. Growth and development should be balanced among residential, industrial and commercial uses. Growth and development of industry and of housing for low/moderate income residents is encouraged. Growth and development should include rehabilitation and continued use of existing structures, where considered feasible.
6. The phased road improvement plan should be continued and sustained. Both paved and gravel roads should be reviewed annually for construction improvements and updates. The Town currently utilizes a 5-year plan for upgrades and maintenance of both paved and gravel roads.
7. Ground and surface waters (for drinking and recreation), open lands, forests, farms, natural recreational areas, archaeologically sensitive areas and wildlife habitats should be recognized as valued resources and their preservation should be balanced with other considerations in making planning decisions.

8. Protection of Town water supplies and maintenance, improvement and development of water distribution systems should be planned and implemented by the various Fire Districts and public and private entities which have assumed water responsibilities. This should be done with respect for anticipated growth and development and for the citizens' health and need for consistent/dependable service at a reasonable cost. The Town, along with the two remaining fire districts, Graniteville District #4 and Websterville District #3 have implemented a source protection plan.

1.3 OBJECTIVES

Sewer

Consult with Barre City regarding the growth expectations and needs, both residential and industrial, in Barre Town, so that sewer use/needs/ impacts can be properly accounted for and planned for. The Town should continue working to minimize groundwater infiltration to better utilize the Town's allocation. The billing for biochemical oxygen demand (BOD) from industrial producers has been reviewed by the Town's consultant Aldrich & Elliot; a plan has been developed and billing for BOD is now occurring.

Water

Consider a capital improvement plan for Town water system. The Town is considering upgrades to the water system supply in East Barre area off Waterman Street and Lowery Road. The waterline running from East Barre to East Cobble Hill road area should be considered for upgrading.

Roads

Continue updates of 5-year projected road improvement plan, in house, based on what has been done and known needs.

Land Use Regulation

Revise Zoning and Subdivision regulations to implement this Plan. Ensure that Town attends and participates in Act 250 review of all major projects in Town to ensure that the Town's plan and interests are properly interpreted and protected.

1.4 PROGRAMS

Ongoing amendments to this Town Plan and existing Zoning Bylaws, Subdivision Regulations and Sewer Ordinances are the best tools to guide the future growth and development of land, public services and facilities. Protection of natural and scenic resources has been addressed herein and will be carried through in future regulations.

1.5 THE PLANNING PROCESS

The essence of community planning is choice. Planning in Barre Town is an effort to make public choices which will shape the future of the community with respect to land use, capital improvements, community design, local finances and other issues. Planning is a necessary activity if a community is to grow in an orderly and economically productive manner.

The process of planning is continuous. Once a community begins a planning program it must realize that, to a great extent, it has entered into a continuous process. New ideas, values and conditions have an ongoing effect on the community. Planning can be a difficult and sometimes painful process for the citizens of a community but it can also be rewarding when people reach consensus and move into the future together.

Planning helps to establish the ground rules for development within a community. A community that has an adopted comprehensive plan and has implemented bylaws has given a clear signal to current and future residents and

developers that certain standards of development are expected within the community. The acceptance and publication of the standards facilitates equal treatment of all proposals that come before the community. Planning does not eliminate the possibility of conflict but it does help to reduce the potential.

Effective planning decisions have the potential to save money for a community in the long term. The development of zoning bylaws and subdivision regulations, which allow and encourage residential development in areas adjacent to existing development while discouraging random sprawl in outlying areas, would be one example. The reduced demand for municipal utility extensions as a result of these regulations could save substantial tax dollars.

The planning process provides the opportunity for residents of a community to make some fundamental decisions concerning its future direction. The objective is to allow people an opportunity to discuss the issues and to reach a majority conclusion. A major effort to include as many citizens as possible in planning is important in order to accomplish this objective.

Property values within a municipality can be preserved by allowing for a separation of incompatible and potentially harmful land uses. Zoning Bylaws ensure that residential land uses are appropriately insulated from more intensive uses, such as industrial parks. Community plans for parks, trails, recreational facilities and other amenities can also add to the livability and general attractiveness of a community.

Planning can also help a community to identify areas where development may not be appropriate due to environmental conditions. This may be due to conditions evident at the site such as excessive slope, aquifer recharge areas, erosion of stream banks or to the existence of other natural resources such as an important wildlife habitat.

1.6 YESTERDAY AND TODAY

Barre is known as the "Granite Center of the World" and has within its borders the world's largest granite quarry. Barre Town is predicted by the Regional Planning Commission to become the most populated town in Central Vermont by 2020.

Before man's intervention most of Barre Town, like the rest of Vermont, was covered by virgin forest land. Settlers of the 1700's and 1800's encountered a wilderness much of which was eventually cleared to create the meadows and pastures of today. Some of the first settlers came from southern New England and received land through the New Hampshire land grants.

The Coos Trail was the Indian pathway by which the Abenakis of the Swanton-Isle LaMotte area in the northwest corner of Vt. traveled across Vermont to the Coos Indian country. The Coos country extended from Bradford to Guildhall on the east side of Vermont and on both sides of the Connecticut River that flows there.

On August 12, 1781, 19,900 acres of this wilderness were chartered to William Williams and 60 others and given the name "Wildersburgh". The area comprised the present Town of Barre and City of Barre. It is believed that none of the original 61 grantees ever settled the area. Present day Barre Town consists of approximately 19,668 acres. Boundary adjustments between abutting Towns in the years since the original charter is the most logical explanation for the current combined size of Barre Town and City of 22,245 acres (Barre Town 19,668 acres, Barre City, 2,577 acres).

Among the early settlers was John Goldsbury who first settled in Wildersburgh in 1789 followed by: Stephen Morrison, Zebidee Beckley, Amazaiah Peck, Nathan Harrington, Joseph Trow, William Richardson, Daniel Nye and Dennison Smith. Many of these names are still familiar as names throughout the Town and provide insight into the various areas where the forefathers originally located.

By 1790, as interior roads were being cut throughout the township, rapid settlement started to take place. By the 1800's the population shifted from the Upper Village (present day South Barre) to other areas throughout Wildersburgh.

The first Town Meeting in Wildersburgh was held on March 11, 1793.

At a subsequent Town Meeting, it was voted to petition the General Assembly of Vermont to change the name of Wildersburgh. The person honored with renaming the Town was decided by whoever gave the most money towards building a meeting house, described as "a house of worship". Ezekiel D. Wheeler earned the right with a high bid of sixty-two pounds and named the Town "Barre".

In another more colorful story, local legend insists that the name "Barre" resulted from a fist fight won by Jonathan Sherman at the Calvin Smith farm on West Hill on September 3, 1793. Winner Sherman named the Town after his native township of Barre, Massachusetts. This story is the best-known version of how the Town was named however, no evidence has ever been found to support it.

The name Barre is in honor of Isaac Barre who was an Adjutant General in the British Army. After fighting alongside John Goldsbury at the Battle of Quebec in 1759 during the French and Indian War, Barre was wounded and sent back to England to carry the news of the capture of Quebec. General Barre, who was born in Dublin Ireland in 1726, went on to serve as a member in the British Parliament for 30 years as well as Vice Treasurer of Ireland, Treasurer of the Navy, and Paymaster General. During General Barre's time in Parliament, he was the most vocal opponent to the Stamp Act of 1765 which affected the American colonies by way of a new tax. The Act became a lightning rod in our Nation's march towards independence. General Barre's "Sons of Liberty" speech against taxing the Colonists became a source of inspiration for Colonists as they considered fighting for their independence. General Barre died in 1802. Four towns in the United States continue honoring his legacy in their names, Wilkes-Barre, PA; Barre, MA; Barre City and Barre Town VT.

In the early 1800's it became clear that the hills of the Town of Barre had something that could become a very important part of the Town's vitality: granite. History indicates the granite industry began soon after the War of 1812. Two returning soldiers, Robert Parker and Thomas Courser, opened what is believed to be the first commercial granite quarry in the country. The quarry was located on Cobble Hill on the east side of the Town. This quarry produced granite foundations and granite used for construction. Prior to this first quarrying operation, Indians had used granite to carve arrowheads, hammers, spearheads and crude axes. In 1832, granite blocks were quarried and hauled to Montpelier on rollers for construction of the current State Capitol which was completed in 1837. Verbal history relates that workers were paid \$1.00 a day for the effort.

Between 1830 and 1880 the Town's growth and the granite quarries grew slowly. Not until 1875 and the coming of the railroad did the granite industry become a full-fledged enterprise. This began the migration of workers from Scotland, Italy and soon after Scandinavians, Spanish, Greek and Lebanese. Later, during a strike of workers which was called to improve working conditions in the granite industry, a large number of French Canadians converged on the now rapidly growing Town. By 1884 the population had grown to 10,000. While granite was the largest of all local industries, others also existed: carpentry, milling, stone shaping, soap making, tanning and blacksmithing supported the new settlers.

The concentration of growth, primarily in the valley and adjacent to certain areas of the Stevens Branch of the Winooski River that flowed through the Town, led to the desire by the citizens of that more populated area to have increased municipal services such as public water, sewer and electricity, and better roads. In turn, they petitioned the General Assembly for their own Charter which was granted in 1895 creating the City of Barre as a separate municipality from the Town of Barre. Citizens of the outlying areas in the Town preferred not to participate in the additional cost of the new services which they judged, correctly, would likely not serve them directly.

The remaining lands are what now constitute the current Town of Barre which, except for a small section to the North, surrounds the City. Land characteristics of Barre Town are significant acreage at higher elevations and areas generally less populated and often associated with agricultural and recreational use, as well as the historic small village centers, granite quarries, and later day industrial development.

The Town of Barre was made up of three small settlements: the Upper Village (South Barre), Millstone Hill (Graniteville/Websterville), and Carnes Mill (East Barre). These three original settlements are still in evidence today and are characterized as compact villages separated by rural countryside. They are unincorporated villages within the Town, each distinguished by their own post office and zip code. This frequently causes confusion among the public by appearing to be separate municipalities. While the "hill" is still referred to as Millstone Hill in many ways, Graniteville and

Websterville are their own distinct villages with upper and lower sections to them.

The "Upper Village" (South Barre) was Wildersburgh's and Barre Town's first settlement and a center of activity. Many of the first physicians, lawyers, politicians and businesses were located there. A number of their residences are still evident along Route 14 today. South Barre also boasts the first post office and granite shed. Some time ago, a subterranean passage was found across from the "Dennison Smith" residence at 397 South Barre Road/VT RT 14 and local lore is vivid with stories of a local branch of the Underground Railroad. Today, South Barre is a typical small village distinguished by convenient access to I-89 (via VT RT 63), multiple businesses, and is home to one of the two Town fire stations.

The Graniteville/Websterville areas continue today to be the heart of the granite industry. Websterville is also the location of the municipal building (a former neighborhood school), the police station and the municipal garage. Also located there is the K-8 Barre Town Elementary and Middle School which, in 1966, replaced the previous nine (9) neighborhood schools scattered throughout the Town (Upper and Lower Graniteville, Upper and Lower Websterville, East Barre, South Barre, Trow Hill, Springhouse, and Brookside). Adjacent to the school grounds is a large and popular recreation area and bike/walking path. Many of the old school locations still have Town playgrounds.

The last settlement to develop, Carnes Mill (East Barre), was described in early days as a "small mill town". At present East Barre is a small village with several commercial businesses as well as one of two fire stations of the Town Fire Department.

Several historic sites significant to Barre Town's history still remain:

A large brick building located on Beckley Hill Road was built in the early 1920's to serve as a sanitarium for victims of silicosis. Silicosis, which is a form of tuberculosis, was an unfortunate by-product of the granite industry in the early days of the industry. Workers inhaling the fine granite dust as they sawed, hammered and chiseled monuments from blocks of granite fell prey to the dreaded disease for which there was no known cure. Over time, with improved dust collection equipment, the incidences of silicosis began to fall. Now that today's granite manufacturing plants have modern collection systems, early detection programs, and regular health screening, the occurrence of the disease is rare.

The first wood-framed house in Barre was built on Richardson Road by William Goldsby in 1800. While the house no longer stands, a granite monument signifies its location.

The Pliny Wheaton house located at the intersection of West and East Cobble Hill Road is the area's first granite house which has been designated an official State Historic site. Pliny Wheaton owned and operated the Wheaton Quarry on Nussli Road.

Several quarries remain prominent in the area. The quarry once owned by George Milne and later by (George) Milne, (James) Boutwell and (Harvey) Varnum in 1925 became the property of the world-famous Rock of Ages Company whose outstanding craftsmanship was depicted in a famous, iconic Norman Rockwell painting entitled "Kneeling Girl" 1955. The painting depicted a school-age girl, her textbooks tied together, paying her respects at the grave of someone named Newton. While still a tourist attraction, the original Milne, Boutwell and Varnum Quarry was closed in 1992. Now most of the Rock of Ages quarrying operations are focused at the E.L. Smith quarry located on Millstone Hill (McLeod Hill Road). The Wells-Lamson Quarry, located on the Websterville Road, almost within eyesight of the Town Municipal Building was, before it was discontinued, one of the longest, continuously-run and deepest quarries in the world.

Geological surveys have indicated the land around these quarries and on Millstone Hill contains vast amounts of underground granite, sometimes referred to as an "in-exhaustible" supply. Throughout the woods around Websterville and Graniteville are small abandoned quarries, many of which are now part of the recently acquired Barre Town Forest.

Granite produced in the area is known as "Barre Gray" and is sought after worldwide for its fine grain, even texture and superior weather resistance. Many sculpture artists prefer it for outdoor sculptures.

2. LAND USE PLAN

2.1 INTRODUCTORY STATEMENT

The Town of Barre has a total of 19,668 acres of land. Land use growth and development in Barre Town should be planned to balance market needs and demands with the capacity of the land, municipal services and infrastructure network to accommodate it. The plan should anticipate and seek, within reason, to accommodate the results of market demands and growth pressures while recognizing the need for standards, limitations and regulation to contain extremes which may result. Land use planning should always seek to make the most effective and efficient use of existing infrastructure.

2.2 CURRENT ZONING DESIGNATORS

The current Zoning Bylaw utilizes the following districts to help the Town develop in an organized and compatible manner with regard to uses:

Low Density Residential
Medium Density Residential
High Density Residential
Very High Density Residential
East Barre Commercial
Office Building Retail
Office Building Business
Highway Commercial
Industrial
Earth Resource Extraction
Conservation

2.3 ZONING DISTRICTS PURPOSE STATEMENT

The four residential zones are to help distinguish different intensities of development and gradually transition from one area to the next. Very high density is intended to incorporate the areas of Town with the greatest concentration of existing residential uses which include the four villages and areas such as Richardson Road and Camp Street. Further concentrated residential and compatible commercial development is encouraged there. Low density residential is primarily land that does not have municipal services and where larger tracts of land with both wooded area and open fields exist. Less intense development in this area and the preservation of open land for agricultural use when possible is encouraged.

The four commercial zones reflect areas of desired commercial development with an eye towards the intensity of the uses and the lands available for it. An example of office building retail is that some commercial businesses need more room and the South Barre area has greater potential for such uses because larger land sizes are possible. Office building retail may not need the larger land mass so that areas zoned as such do not have the potential for larger lots. East Barre commercial attempts to reflect the existing development pattern in East Barre which includes commercial and residential uses.

Industrial and earth resource extraction recognize significant existing patterns with regard to granite quarrying and the extraction of gravel. Barre Town's foundation sits on granite and the importance of that resource is significant. Residential development patterns have, to a large degree, been created because of the granite industry. As times change and the granite industry sees fluctuations in demand, land owners turn to other types of uses. Industry is important to any community's economic development and it is important to find a balance between land uses given the proximity of industrial land (including earth resource extraction) and highly dense residential areas. Utilizing the conditional use process is a good way to help mitigate concerns.

Conservation areas are mainly those with steep slopes or other features that make development difficult.

2.4 PROPOSED ZONING (Map 2)

The Town of Barre completed a zoning rewrite shortly after the last Town Plan adoption in 2008. Future lands use, as outlined in the 2008 Town Plan were extensively incorporated into the new zoning. At present, the land use designations are sufficient and meeting the needs of the Town of Barre with the possible exceptions below:

- The 2008 zoning rewrite eliminated the public land zoning designation creating conflict between certain zones when abutting cemeteries. Allowing cemeteries to have their own designation, with limited use, should be considered in future zoning amendments.
- Currently the Wilson Industrial Park is divided into two separate zones, industrial and commercial. Present development is mixed and seems to be compatible. Future consideration should be given to altering the zone to a more mixed commercial and industrial zone.
- With the adoption of the 2014 Town Plan and subsequent Town Plans the Planning Commission should review Zoning Bylaw to ensure compatibility with the Plan.

2.5 ZONING MAP (Map 2)

The zoning map, which should be incorporated into the Zoning Bylaw, is used to identify current zoning designators and is used to determine allowed uses within certain areas. It can also be used to plan for future changes to land use.

2.6 MUNICIPAL USES

Most of Barre Town's municipally related uses are centralized in the Websterville area including the municipal building and Town highway garage. Also in Websterville is the Town's main recreation area located adjacent to the Barre Town Middle and Elementary School. There are many other municipally run uses such as fire stations in East and South Barre, emergency medical service building along US RT 302, neighborhood playgrounds, the town forest, water and sewer infrastructure all spread out throughout town for reasons of necessity or practicality. The Town also has three bike/pedestrian paths providing even more recreational opportunities.

- It is important to keep a centralized government seat for efficiency and character. It would likely benefit the Town if future municipal expansion stay centrally located.

2.7 INFRASTRUCTURE

Barre Town maintains a vast network of both paved and unpaved roads. These roads provide access to all land uses with much of the land use centered around the road types. In other words, commercial and industrial land is primarily located along either Town paved class II or III roads or along State and Federal highways such as VT RT 14, US RT 302, or VT RT 110. Residential uses are primarily located on class III roads either paved or unpaved. Unpaved roads are located in the more rural area where uses are primarily residential or agricultural.

- The type of road should be considered when reviewing land use to ensure the highways system is suited for the use.
- It is not always recommended that heavy trucks travel on class III or unpaved roads, or at least travel should be limited and regulated by permit. Unpaved roads have unique concerns of their own during the spring months when mud can affect travel.

Barre Town also owns and maintains many miles of water and sewer lines throughout Town. In some areas of Town such as Websterville and Graniteville, fire districts operated by the residents of those villages were formed many years ago and provide water service to the occupants. The City of Barre provides water to many Town residents in the

South Barre, Trow Hill, Richardson Road, Camp & Cassie Street sections of Town. Barre City owns and operates the sewer treatment plant, Barre Town has allocation at the plant for sewerage originating in Barre Town.

Water and sewer availability plays a major role in land use development. As such, Barre Town has a designated sewer service territory and while there is ample capacity at this time to serve the territory and beyond.

- Barre Town has taken an approach against allowing extensions of sewer lines that requires pumping. This stance is especially true if the pumping would have to become part of the Town's system.
- Private and typically on lot pumping stations have been allowed in some residential uses but it is not preferred.
- Commercial and Industrial uses should be located in areas with municipal services such as water and sewer.

The Town of Barre has no plans for extension of its infrastructure relating to roads and the water and sewer distribution network. The one exception to these plans is the Wilson Industrial Park. Developers are the primary reason expansion of infrastructure occurs.

- It is the policy of the Town of Barre that if infrastructures expansion is required as part of new developments, including residential or commercial, the developer shall construct the infrastructure to a standard required by the Town and then convey the infrastructure to the Town for future maintenance.

2.8 LAND USE AND LAND COVER (Map 7)

The attached map shows the current land cover in Barre Town. Much of Town is still covered by forest or open land. The urban land, as shown on the map, indicates areas of more intense development. The map displays areas where agricultural uses may still find land suitable for the needs associated with that use.

- Future land use should refer to this map as a guide along with the zoning map when planning development to continue to find a good balance between intense land uses and less intense uses.

2.9 GUIDANCE STATEMENTS

Below is a statement concerning current uses and land size that should be considered when looking at zoning and land use:

Very High Density Residential: Lot size of 8,500 sf. or above with off-site water and sewer available requiring an increase in lot size if not. Mixed uses are common and while all of the villages are zoned as such, other compact areas also share the density but without the mixed use.

High Density Residential: Lot size of 1/3-acre or above with off-site water and sewer available as a rule with lot size increases required if not. Non-residential uses would be minimal.

Medium Density Residential: Lot sizes 2-acres and above as a transition between high density and low density. Past zoning practice has not incorporated this idea and the only real difference between medium and low density zoning at this time are a few uses. Off-site water and sewer, as a rule but onsite is likely permitted with larger lot sizes.

Low Density Residential: Lot size 2-acres, semi-developed, semi-rural and natural areas (typically not served by Municipal water and sewer), reduction in lot size with off-site water and sewer available. This zone is primary area for higher intensity agricultural use.

Commercial: Lot size ½ to 2 acres depending on actual zone. Areas of commercial zoning include East Barre Road (US RT 302) between Barre City and East Barre, also land in the Wilson Industrial Park zoned Commercial and intended for office park. Mixed use along South Barre Road (VT RT 14 – South) and East Montpelier Road (VT RT 14 – North). Quarry Hill from the City line has some commercial and could be expanded.

Industrial: Lot size 2-acres or more. The areas in Town exclusively industrial for the purposes of this Land Use map are the Wilson Industrial Park land and areas around Graniteville and Websterville.

Village Centers: Dense development with lot sizes as low as 8,500 sf. As its name suggests, a village center is a centralized, usually "self-contained", settlement including a concentration of residences, commercial use(s) and, perhaps, a church or churches and a post office. These features usually give a village center a sense of place and identity:

The following are locally recognized Village Centers of Barre Town:

Lower Graniteville
Upper Graniteville
Lower Websterville
Upper Websterville
East Barre
South Barre

Conservation: Lot size of 25-acres and above. This is the area most restricted from development, since it is land difficult to develop given natural features or designed to conserve needed natural resources.

Earth Resource Extraction: Lot size of 15-acres and above. Approximate location of the major land masses dedicated to the quarrying of granite, the Town's major "export" product and sand and gravel operations.

Mixed Uses: While not a zone, there are many areas which contain a mix of uses and are an important part of Barre Town's economic development, character, and quality of life. Mixed uses include, residential, commercial, and industrial and, in some cases, agricultural. Mixed use is predominately along VT RT 14 and US RT 302 as well as the village centers.

2.10 LAND USE GOALS

- Creative design and clustering is encouraged to minimize infrastructure costs and preserve open spaces. Open spaces to be maintained by homeowners' associations or by municipality with public/community access.
- The Town should continuously review Zoning Bylaws, site plan criteria and density bonuses, as provided by State Law (24 VSA § 4417), as these will help realize land use goals and policies.
- Low density residential land should continue to have less dense development for the preservation of open land and agricultural uses.
- Consider requiring all industrial uses to be reviewed as conditional uses to help mitigate potential conflict between them and residential uses.
- The protection of recreation opportunities should always be considered when looking at land use. Of particular interest is the protection of snowmobile trails and other paths that are important given the dependency of landowner's permission to use the land.
- Development and growth should be encouraged in areas where municipal water, sewer and roads are available. Growth should be done in ways that do not burden existing systems and cost of operating those systems on the taxpayer. Sewer pumping stations should be discouraged.
- When planning, balance market needs and demands with the capacity of the land while at the same time recognizing the need for standards and regulations.

- Continue to review zoning as a way to transition from one zone to another.
- Continuously review Zoning Bylaws to ensure compatibility with the Town Plan.
- Review the zoning designation of cemeteries.
- Maintain a centralized government seat.

3. TRANSPORTATION

3.1 HIGHWAY PLAN

Highways form the backbone of the transportation system in Barre Town. Proper location, design, construction and maintenance of this important public investment are essential if economic vitality, environmental preservation and quality of life are to be assured for the Town's citizens.

The Selectboard maintains an ongoing five-year highway improvement plan that contains specific projects and priorities. Since this is updated on a yearly basis, the improvement plan was not included in this Plan. Those interested in the Highway Improvement Plan should contact the Town Manager's Office.

In 1991, the Selectboard adopted a Highway Ordinance intending to assure new roads are built in accordance with sound engineering practices to protect existing roads from overweight vehicles and to clarify responsibilities for class 4 roads and trails.

Highways are classified first as urban or rural, and then into one of four functional categories: controlled access highways, arterial, collector and local. Controlled access highways and arterials are main roads whose primary purpose is the efficient movement of vehicles. Collector highways feed the arterial system and also provide land access to a significant degree. Local highways are primarily oriented toward land access.

Most of the roads in Barre Town fall into the local classification but a significant number are also collectors or arterials. For example, Cummings Road and the Plainfield Brook Road are both Class II roads but in addition, traffic counts indicate that the roads carry high volumes of traffic to/from Plainfield.

- These roads should be reviewed in the future as collector highways needing improvements. A few of the Town highways and all of the State highways passing through Barre Town are classified arterials.

The Selectboard formed the Ancient Roads Committee on January 29, 2008. This committee is designed to research roads which have fallen from use 150 years ago, and over which legal rights for a road remain over the property. The Vermont State Legislature which is trying to clear up this dilemma for towns and property owners. This committee has been researching to declare right-of-ways on all ancient roads in the Town. These roads will be reclassified or retained by the Town at this time.

Federal and State Highways

Two US highways and three State highways lie within Barre Town. With the exception of a short US RT 2 segment which connects to no town highway, these arterial highways are the principal means of access in and out of Barre Town. They provide the principal travel routes for inter-town trips whether for work, shopping or entertainment. Although these highways are of great significance to the Town, maintenance and construction of them is the responsibility of the state. There are 11.572 miles of US and State Highways in the town. US and State Highways within Barre Town are illustrated on the region map in the map section of this document (Map 1).

- US RT 302, arterial highway, runs generally east and west passing through East Barre Village. To the west, it provides a connection to Barre City and access to Berlin and Montpelier. To the east, it runs through the Town of Orange and provides access to the Connecticut River Valley and New Hampshire.
- US RT 2, an arterial, provides a link between Montpelier and St. Johnsbury, has a very short segment which passes through the northwest corner of the Town.
- VT RT 14, an arterial, runs north and south through Barre Town and Barre City. RT VT 14 serves as a vital link between the northern half and the southern half of Barre Town. It connects to Williamstown and points south,

and in the north it provides access to East Montpelier where it intersects US RT 2.

- VT RT 63, an arterial, is better known as the South Barre Access Road and provides important linkage to Interstate 89 (a freeway). VT RT 63 is the only controlled access highway within Barre Town. Access is prohibited except at approved public highway intersections.

- VT RT 110, a collector highway, provides access to the Town of Washington south of East Barre.

Town Highways

The town highway system is the network of roads that all town residents rely on for personal land access, travel to other places within the Town, convenient travel to adjacent towns and connection to the State highway system. All town highways are categorized into one or another of the following classes for the purpose of receiving highway aid:

Class 1 Highways

There are no Class 1 town highways in Barre Town.

Class 2 Highways

Are considered the most important town highways and serve as trunk routes within the Town and between Barre Town and surrounding towns. They are generally the more heavily traveled routes in town. They have an all-weather surface, and provide links between major business and residential centers within town. The Selectboard determines which highways will be designated as Class 2, subject to approval of the State Transportation Board. There are 21.58 miles of Class 2 highways in Barre Town.

Class 3 Highways

Are all traveled highways other than Class 1 or 2. The Selectboard, after conference with a representative of the State Transportation Board, determine which highways will be designated Class 3. Construction and maintenance of Class 3 Town Highways is the primary responsibility of Barre Town but state highway aid is provided to assist in the expense. There are 73.62 miles of Class 3 Town Highways in Barre Town.

Class 4 Highways

Are all other town highways and pent roads. The Selectboard determines which highways will be designated Class 4. There are currently 4.89 miles of Class 4 roads in Barre Town.

Town Highway Bridges

Providing safe and adequate bridges for the highway transportation system is extremely important.

- Adequate periodic maintenance of bridges is essential to avoid catastrophic or costly loss. There are two bridges and 22 major culverts on Barre Town highways. The two bridges are both located in South Barre, one on Snowbridge Road the other on Bridge Street. Long in need of replacement, the Bridge Street Bridge was replaced by the State of Vermont in 2013. Barre Town paid 5% of the total cost.
- Continued maintenance and inspection of bridge and culverts is necessary to ensure an adequate and safe transportation network.

Legal Trails: There are 1.06 miles of legal trails in the Town. The Selectboard is reviewing unidentified corridors for possible inclusion into the Highway system.

Town Highway System Deficiencies (Map 6)

- Identification and prioritization of system deficiencies is necessary to guide Town officials in the effective use of limited highway budgets. Top priority should be placed on projects which will preserve the existing facilities and enhance safety. Periodic inspection of roads and bridges should be carried out to determine those needs. Periodic bridge inspections by the State Agency of Transportation provide critical maintenance information on structures. These activities should continue. In addition, the Town should continue the formal pavement management system to assist in making optimal use of limited resources.
- Secondary priority should be given to those projects which will relieve congestion and provide greater capacity. Identification of those needs requires careful consideration of many factors, including current system capacity, present and future growth, desired lines of travel, and sources and availability of funds, character of the area (i.e. residential neighborhoods). Several alternatives should be investigated in finding solutions to a given problem, and public input into the location and design processes should be actively solicited.
- Present deficiencies which are presently apparent involve the efficient movement of people from major population centers within town to the major arterial highways in the area. Most significant examples are: (1) travel between the Websterville/Graniteville area and I-89, (2) travel between the Websterville/Graniteville area and VT RT 14 in Barre City, and (3) travel between the Trow Hill area and US RT 302 in Barre City.
- Another present deficiency involves travel between the northeast portion of Barre Town and US RT 2 in Plainfield. The improvement of US RT 2 and VT RT 14 in the East Montpelier area may provide an attractive alternative to the present unpaved rural roads connecting these areas. The intersection of VT RT 63 and Miller Road continues to be a high accident location. The Town would like to work with the State of Vermont to figure out a remedy which would increase safety at this site. VT RT 14/Bridge Street/Sterling Hill Road intersection is also a high crash location. Plans are well in the works to perform a slight realignment and make overall improvements to the intersection including signalizing. Finally, Mill Street at VT RT 110 is currently a Y intersection which makes for poor sight distance. Plans call for this intersection to be realigned into a T. All of these projects are important to and highly supported by Barre Town with regard to safety and economic development. It is hoped that the State of Vermont will make these improvements a high priority.
- In addition to these deficient categories, system needs may arise as a result of planned development. These needs should be carefully analyzed to ensure that the developer is assessed a fair share of the costs of needed improvements. All such improvements should be constructed to the Town's established standards.

Recommendations for Future Improvements

- Future improvements to the Town Highway System may come about as a result of relocation or widening of existing facilities or as a result of new development. Relocation or widening should be done within existing rights-of-way whenever feasible. It should be accomplished with minimal disturbance to homes, businesses, streams, ponds, wetlands, schools and public recreational facilities and to important historic and archaeological resources. Highway location and construction should also be accomplished in such a way as to minimize encroachment on agricultural and significant forest areas, and with minimal adverse impact on ground water, scenic trees and vistas. Conservation of resources should be a goal in all highway construction and rehabilitation. The reuse of pavement grindings for surfacing shoulders or parking lots is to be encouraged. New roadways which will eventually be taken over by the Town should adhere to the same location, design and construction standards as indicated above.

3.2 ACCOMMODATION OF TRUCKS, BICYCLES, AND PEDESTRIANS

Trucks

It is important that adequate highways be provided to support safe and efficient truck travel because trucking is vital to the economic vitality of the Town. Therefore, it is necessary to identify those routes principally used by trucks to ensure that they are properly constructed and maintained for safe use by everyone.

Principal Truck Routes

The principal truck routes on Town highways are (list may not be inclusive):

No excess weight permits necessary (Legal Load Same as State Highway (LASH)):

Quarry Hill Road; Graniteville Road (to #773); Websterville Road; Pitman Road; Parker Road;

Others that would require an excess weight permit:

Farwell Street; Pine Hill Road; Plainfield Brook Road; East and West Cobble Hill Road; Windywood Road; Cummings Road; Hill Street; Airport Road; Upper Prospect Street; Morrison Road; Bridge Street; Church Hill Road; Cogswell Street;

Excess weight permits are issued by the Town Manager.

Bicycles (Map 5)

This section deals with shared use of roads between vehicles and bicycles, not bike paths. Bicycles provide a clean, economical and energy efficient mode of transportation. They are a primary means of transportation for many and have become an increasingly popular form of recreation and transportation for adults. The hilly terrain found in much of the Town does not encourage long, cross-town trips. Therefore, in addition to the limited bike paths that have been constructed to accommodate bicycles, safe and convenient bicycle routes encompassing Town roads should be provided or developed in the Town.

Bicycle traffic can be expected on nearly all, if not all, of the highways within the Town. The reasons for bicycle trips range from commuting to recreational. The commuter rider desires the most direct route with few interruptions, whereas the recreational rider is riding for pleasure and a specific route has less importance. Riding ability differs greatly among bicyclists. Some feel comfortable riding on a busy highway, other riders prefer to ride on a quiet street or rural road.

The planning and design of bicycle facilities whether they are improvements to existing highways, provisions included in new highways, or separate exclusive routes for bicycles need to accommodate a broad range of bicyclists.

- Designating certain roadways as principal bicycle routes can be effective in discouraging bicycle traffic on otherwise hazardous roadways. The principal routes must be generally hazard free in order to encourage the more serious rider to take a less direct route.
- Some bicycle paths are physically separated from the highway and can be either within the highway right-of-way or within a separate right-of-way. If bicycle paths are less than 5 feet from highways, physical barriers such as fences or guardrail should be considered in order to divide the two distinct facilities.
- There is no completed bicycle route network within the Town. Most of the highways used by bicyclists do not have sufficient shoulder width to safely accommodate them. Most of those highways which do have wider shoulders do not have markings or signs delineating a preferred bike route.

Recommendations for Future Improvements

- The Town should identify roads that would be conducive to bike travel that also fit into a master plan of creating interconnected bike routes.
- Future improvements should begin with a needs analysis; facilities should be developed based on the results of this study, as well as accessibility to existing and future facilities in adjoining communities; routes should be located to improve accessibility to natural, scenic areas and bicycle traffic generators such as schools, parks,

playgrounds, and major employment centers;

- New roadways which are built and existing roadways which are improved should include provisions to safely accommodate bicycles. Old railroad beds and Class 4 Town Highways provide excellent opportunities for bike routes.
- Bike path from East Barre to the elementary school created.
- Both State and Federal funds are available for construction of bike paths. Cost of long-term maintenance and overall safety of all path users should be considered during the review process of any proposed path, as well as community benefits.
- Parking areas for vehicles should be conveniently located along bike routes to accommodate both the recreational rider and the commuter; this is an important consideration given the steep grades which separate much of the Town as well as separating the Town from neighboring communities. Consideration should also be given to a parking area at the bottom of Richardson Road or one in the Cobble Hill area for scenic rural trips.
- Any new bike path should be planned with consideration for additional width, signing, and striping in order to facilitate sharing the facility with bicycles, pedestrians, and joggers.
- A bicycle path connecting the Trow Hill area to the Websterville area should be planned and constructed.
- Adding a bicycle corridor along Route 14 using existing right-of-ways should be considered.

Pedestrians (Map 5)

Pedestrian walkways are an important and integral part of the transportation system.

- The construction of these facilities should be considered for the safety and convenience of pedestrian and vehicular traffic.
- These byways should be provided for in those areas where the volume of traffic warrants the cost and utilization of land for them.

Sidewalks are the most formal means of delineating walkways to separate pedestrian and vehicular traffic. They are generally needed in areas of moderate to high density development. These facilities are found in a wide variety of types as to width and surface materials and should be designed in accordance with acceptable standards to satisfy traffic volumes.

- Sidewalk improvements should be planned at the same time that road improvements or other construction projects are planned.

Footpaths are informal pedestrian walkways which may be utilized to move traffic between points or as nature trails and other recreational purposes. These paths generally have specific uses and are not necessarily associated with the need to separate pedestrian and vehicular traffic. Easements should be acquired or dedicated and maintained for the public use of these footpaths.

Shared use paths serve as part of a transportation circulation system and support multiple recreation opportunities, such as walking, bicycling, etc. Shared-use paths should always be designed to include pedestrians even if the primary anticipated users are bicyclists.

Recommended Future Improvements

- Future improvements may be either in the form of reconstruction of existing transportation facilities or new

development.

- Consideration should be given to pedestrian needs, such as provision of wider, raised sidewalks, in the case of reconstruction or relocation of existing highways. The design of highway projects should include an analysis of pedestrian byway needs.
- All new and reconstructed sidewalks should include appropriate ramps at crosswalks and side streets to allow their use by the mobility impaired.
- Sidewalk Improvement - There are areas of the Town that are deficient in providing facilities for pedestrian traffic. Areas of primary concern are South Barre along VT 14 beginning at the existing sidewalk (at the intersection of Sterling Hill Road) north to Barre City at Parkside Terrace and south from the end of the existing sidewalk to Kings Row near the Williamstown town line and also along Richardson Road from the City line northerly to the intersection of Misty Mountain Drive.

Additional areas that should be incorporated into a study of pedestrian traffic facilities are along the through highways in East Barre, Bridge Street to the bridge, Upper Graniteville and Upper Websterville. East Barre is currently being studied for a sidewalk project on Mill Street from VT RT 110 to intersection of Websterville Road and then along Websterville Road to the post office.

3.3 PUBLIC TRANSPORTATION

Public transportation facilities in Barre Town are limited and the terrain of the Town is not conducive to many types. The three types of most significance to Town residents are discussed in the following paragraphs.

Air Transportation

Air transportation services are available at the Edward F. Knapp State Airport in Berlin and the Burlington International Airport in South Burlington. Access to the latter is attained primarily by Interstate I-89. Access to the E. F. Knapp Airport is gained most directly by use of Airport Road and Morrison Road (TH 7). Timely and adequate maintenance of these two routes is very important for a large number of Barre Town residents for airport access and for access to the hospital and shopping mall in Berlin. A twenty year plan for the airport was recently completed. It includes provisions for major improvements and expansion in the future.

Rail Transportation

Passenger transportation via Amtrak is available to Town residents in nearby Berlin. This rail access provides service south to the eastern U.S. seaboard and north to St. Albans. Passenger service within The town itself is not considered feasible at this time.

Rail freight service is presently available via the New England Central Railroad to the Websterville and Graniteville areas. Use of those facilities for hauling granite other heavy industrial products into Barre City and beyond has the potential to relieve the Town highway system of much wear and tear.

- Continued and expanded use of such facilities should be encouraged.
- Industrial growth should be encouraged primarily in those areas currently served by or close to rail transportation.
- A common unloading/loading area along the rail line in the Wilson Industrial Park should be explored to allow greater access to the line for business located within the park.

School and Commercial Bus Transportation

School bus transportation for Barre Town Middle and Elementary School students is currently provided at Town expense. This service benefits the Town in several ways. It provides a safe and dependable way to pick up and transport children to school, it is more economical than transportation of children by private automobile, and it reduces the amount of traffic congestion and air pollution which would result from private automobile transportation.

- Although private transportation to the school is becoming more popular, for all the reasons listed previously, public busing should continue to be a high priority.

Public bus transportation services are provided locally by GMTA (Green Mountain Transportation Authority) and other privately owned bus/van companies.

Commuter Services

The State of Vermont currently operates several commuter or ride share parking lots in the area. There is one such lot located along South Barre Road (VT RT 14) in South Barre near VT RT 63 and another just west of East Barre along US RT 302.

The Green Mountain Transportation Authority currently operates a ride share pool and the Wheels Program for seniors. These types of programs greatly increase the mobility of Barre Town residents who are limited in their personal resources or access to family vehicles.

- The GMTA should be encouraged to continue its services and if possible expand them in the future as funding becomes available. One such beneficial expansion to consider would be expanding bus service into South Barre

Other Transportation Proposals

The Town may also wish to look into the following:

- Study functional efficiency of highways as well as quality/materials standards;
- "Flex-time" – staggered work hours at granite manufacturing facilities and Industrial Park businesses to reduce peak hour congestion;
- Specific intersections and roads which need improvements to improve traffic flow/safety and efficiency;
- Support improvements to the Beckley Hill/US RT 302 intersection;
- Continue to support and be involved with the Quarry Hill Road/Quarry Street Intersection upgrade at South Main Street (RT 14) which is proposed for construction in 2016;
- Add Traffic Safety Committee review requirements to Subdivision Regulations;
- Include a review of engineered traffic and warrants for signals
- Developers putting in new roads should continue to pay for stop, speed limit and street signs and traffic signals as warranted. This should be required as a condition to subdivision approval;
- Developers putting in new curb cuts from driveways should utilize shared driveways design whenever possible to eliminate curb-cuts off the roadways.

3.4 TRANSPORTATION GOALS

- Preserve existing roads, bridges, and culverts by regular maintenance and continued inspections.
- Maintain the formal road plans to ensure good quality roads and to help make optimal use of limited resources.
- Explore whenever practical ways to help reduce deficiencies as noted herein.
- Road projects should have minimal impact to the public, natural resources, and recreation.
- All new Town roads developed to a standard as called for by Town Code.
- Plan road projects with bicycles and pedestrians in mind.
- Encourage and support public transportation initiatives.

4. FACILITIES, UTILITIES, AND PUBLIC SAFETY (Map 3)

4.1 SEWER AND SEPTIC DISPOSAL

Sewer Systems

The Barre Town municipal sewer system serves at least 60% of the Barre Town residents. It consists of approximately fifty miles of sewer line and two pump stations. The system primarily serves the more densely populated residential, industrial and commercial centers of the community. The entire sewer system is plotted on individual maps which are maintained on the sewer plan map of the Town.

The age and condition of the sewer mains vary greatly. Some lines are nearly 50 year old clay pipes which are subject to considerable ground water infiltration through cracks and joints. Others are 5 to 20 year old PVC lines which have been utilized in the industrial park, recent subdivisions and in line replacement projects in Upper Websterville, Graniteville, East Barre, Trow Hill, Sterling Hill Road and the Buick/Ferris Street.

The Town's sewage collection system is maintained by the Department of Public Works. The Town Engineer serves as the Sewer Officer and provides technical advice and planning. DPW employees have responsibility for day-to-day sewer service.

The Department of Public Works has the following equipment specifically for sewer maintenance:

- A Chevy service van
- A vacuum/flushing unit with a dual wheel truck chassis.

The Barre Town Sewer System is served by the Barre City Wastewater Treatment Plant which has a total design capacity of 3.4 million gallons per day. Of that total, Barre Town currently has a per day allocation of 1.54 Million gallons. As of December 31, 2012, the town was using 1.0 Million Gallons a day of that allocation.

The Selectboard acts as the Town Sewer Commission. The Town Zoning By-laws require that applications for sewer connections be reviewed and approved by the Town Engineer. The following recommendations are submitted in regard to the operations of the Barre Town sewer system:

- The sewer allocation policy should continue to be updated annually;
- The allocation policy has been revised to encourage sewer extension and connections in certain areas and discouraging them in others. Growth is preferred where municipal services are available. All requests for sewer allocation shall be in accordance with the Town's current sewer allocation policy and shall be approved by the Town Engineer;
- A policy should be developed to address the question of whether sewer lines should be extended to developed areas where septic systems have failed in an effort to prevent ground water contamination.

Septage Disposal

Septage disposal in the Town of Barre is generally accomplished by private companies that pump out the septic tanks in the community. State environmental regulations require that septage be disposed of at facilities where it can be properly processed such as municipal waste water treatment plants.

4.2 WATER SUPPLY

The water supply for the Town of Barre consists of numerous sources and the systems are maintained by a variety of entities. There are two fire districts, Graniteville and Websterville which provide full service with varied sources of water to residences within their districts. Water is also provided by the Town of Barre to Quarry Hill, Sterling Hill, East Barre, and Lower Websterville. This water comes from a variety of sources: Barre City water, well water from Graniteville Fire District and a well owned by the Town of Barre in East Barre.

Barre City

The largest single water supply source for the Town of Barre is the City of Barre which provides water from the Thurmond W. Dix Reservoir in Orange. This source provides water to a variety of areas of Barre Town.

- Richardson Road
- Camp and Cassie Street.
- US RT 302
- East Cobble Hill Road
- South Barre
- Trow Hill area

A. Barre Town Water System

1. Connections 466 including the industrial park
2. Well capacity – 40,000 to 50,000 gallons per day (GPD)
3. Daily demand approximately 80,000 GPD (supplemented by the various sources noted above)
4. Storage tanks (2) 300,000 gallon storage tank in Websterville and 250,000 gallons in East Barre.
5. Water pipe network - 12" ductile iron (DI) and cast iron - 4800' main, 8" DI and cast iron - 4000' main, 8" DI and cast iron - 3700' distribution, 6" cast i-iron - 2800', 2" unknown – 2,000'
6. Age - 5 to 40 years
7. Condition - good to very good
8. Pumping stations - Wilson St. and Old US RT 302
9. Pressure – varies 20-120 pounds per square inch (PSI) (50 psi increase due to storage tank)
10. Fire prevention - hydrants
11. Personnel - Town staff, two certified class II operators
12. Consumers
 - residential - 90%
 - commercial - 7%
 - industrial - 3%
13. Consumption
 - residential – 74.3%
 - commercial – 15.4%
 - industrial – 10.3%

B. Websterville Fire District # 3

1. Source – Barclay Quarry – main source, Casanova Street and Quarry Holes # 1-Summer supply to fill Barclay Quarry in summer
2. Connections – 134 residential and one store
3. Avg. daily use – 29,000 GPD – installed filter plant in 1997 to filter water.
4. Water pipe network – 12" pipe from storage tank to intersection of Violet Street and Church Hill Road. Approx. 5000' of 6" case iron and approx. 2500' of 4" cast iron used for distribution.
5. Age - 63 years
6. Tanks, reservoirs and pumping stations – pumping station to service higher elevations; low lift booster pump to Barclay Quarry; and a pump to lift water from Quarry Hole # 6 in the summer. 1991 – New 100,000 gallon reservoir with chlorination facilities. About 2 day supply of head water.
7. Pressure – Average 30-40lbs in the system. Lower end of the system, approx. 100 lbs pressure.

Gravity fed system

8. Fire prevention – 10 hydrants
9. Founded in 1938 and operated by 3 member prudential committee, the water treatment plant operator, the Water Superintendent, Treasurer and Collector of Revenue. Fire District #3 pumps water to the upper end of Websterville to the Baptist Church.
10. Consumers – Residential – 93%, Commercial – 2%, Industrial, Public and leakage – 5%.

C. Graniteville Fire District # 4

1. Source – 52 springs or infiltration galleries and two wells.
2. Connections – 275 (of which 50 are outside the district).
3. Capacity – 438,000 gallon storage capacity, 72,000 GPD usage.
4. Water pipe network – 8" cast iron – 8000' main, 8" cast iron – 2000' distribution, 6" cast iron – 3000', 1 1/2" to 2" cast iron – 5200'.
5. Age – 57 years.
6. Tanks, reservoirs and pumping stations – 3 reservoirs; # 1 – 77,000 gallons, # 2 – 111,000 gallons, # 3 new 250,000 gallons.
7. Pressure – 40 to 143 PSI.
8. Fire prevention – 42 hydrants.
9. Personnel – Prudential Committee (3).
10. *Consumers – Residential 88%, Commercial/residential 9%, Public/leakage 3% (*percentages based on number of connections and not quantity of water used).
11. Other – system upgrades were completed in 1998 with new reservoir, system booster station, filtration and supplement from Barre Town system.

D. Mountain View Acres Water System (Meadow Wood Drive)

1. Source – drilled well, 265 feet.
2. Age – drilled in 1972 or 1973.
3. Capacity – 70 gallons/minute.
4. Holding Tank – 4,900 gallons.
5. Pressure – 30-50 PSI.
6. Privately owned.
7. Connections – There are 10 single-family residential users at the maximum capacity.

E. Birchwood Park System

1. 14 existing connections (14 maximum). Any additional will require improvements to well and reservoir volume.
2. Drilled well, 60+ gals/min, 5HP pump.
3. 2" plastic main.
4. Birchwood Park Homeowners Association.
5. Pump house on property line between Miller lot/H.O. Assoc.
6. System built in 1974 by Harry Miller-Birchwood Park Subdivision.

Water Supply Recommendations

- The town should continue to generate an annual Consumer Confidence Report on the quality and performance of the town water system.
- The Town should continue to explore adding wells in the Waterman St. Lowery Road area to provide core capacity and lowering the dependency on other sources of water.

4.3 TOWN BUILDINGS

The Town has an interest in eight principal structures: Town Office, Barre Town Middle School and Elementary School, East Barre Fire Station, South Barre Fire Station, Municipal Garage, Vehicle Maintenance building, Ambulance Station, and the Wilson Street Building. These buildings, including the school, are ADA compliant.

4.4 TOWN LAND

Barre Town owns numerous parcels of land within town boundaries and one in Williamstown, the most significant ones are listed below.

Town Forest

The Central Vermont Regional Plan (2008) recognized the importance of conserving scenic areas, ecological systems, wildlife habitats, recreational opportunities, and Source Water Protection Areas. Barre Town is also conscious of the importance of preserving land for future generations to enjoy.

Beginning in 2012, The Trust for Public Land (TPL) assisted the Town of Barre in obtaining 5 forested properties totaling 355 acres, to be combined with 25.7 acres owned by the Town, to become a new municipal forest in Graniteville and Websterville, Vermont.

A conservation easement for 355 acres was conveyed to Vermont Land Trust and Vermont Housing and Conservation Board to protect the Property from development and ensure it is open for public use in perpetuity. The 25.7 acres previously owned by the Town are part of the Town Forest, and included in this Community Forest Plan, but are not restricted by the easement.

The Town of Barre will manage the Property as a municipal forest for wildlife habitat, timber harvesting and management, public recreation, education, and water quality protection. Protection of the land as a conserved Town Forest also ensures public access, safeguards drinking water resources, supports the local timber, recreation, and tourism economies, provides occasional timber revenue to the Town, and restores and protects connectivity by assembling parcels that have fragmented ownership. The property's extensive network of trails is a regional destination for mountain biking and other pedestrian recreation, providing unique economic and health-related values to the people of Barre Town and surrounding communities.

Wilson Industrial Park

The Wilson Industrial Park consist of approximately 160 acres of land and is used for both industrial and office purposes. While the Town of Barre still owns about 58 acres of undeveloped land that is available for development, much of the remaining land is individually owned by businesses. The Town, working with Barre Area Development, will continue its efforts to develop, subdivide, market, and sell lots within the park promoting economic growth, generating jobs, and expanding the local tax base. Much of the necessary infrastructure such as water and sewer lines, road, and underground utilities are ready for future development.

Located within the industrial park is 5 ½ acres of land that is owned by the Town and is being used as an recycling depot. Formerly operated by the Central Vermont Solid Waste District, the depot is now being run by a private company. Barre Town and area residents can dispose of trash, recyclables, tires, appliances, and other used materials.

Adjacent to the Wilson Industrial Park is a 10 acre privately owned parcel of land.

- Including this parcel in the industrial park would provide for additional growth opportunity of the park and place it under the same standards making it more likely for uniform development.

Former Pike Industry Land

In 2011, The Town of Barre and Pike Industries engaged in a land swap that saw the Town acquire 39-acres of land in Websterville across the from the Wells-Lamson Quarry, just above the municipal building. In exchange, Pike received 10 acres of former gravel pit land in Williamston that was owned by the Town. The so called "Pike land", ultimately is hoped to be used for the relocation and consolidation of the Department of Public Works, the lawn waste site, and solid waste recycling center.

- In 2014, there are plans to locate a solar farm on this land in a section the Town won't need. The use of this property is consistent with this plan and should be perused, helping to consolidate Town facilities in the Websterville area and helping the environment by creating green energy.

Gravel

The Town owns a 34 acre gravel pit in Williamstown, just over the Town line off VT RT 14, which has been in operation for over 40 years. The Town is currently mixing granite into the gravel to provide material for road work. The Town should investigate purchasing of other land for gravel given that no gravel source is endless and the Town will continue to have a need in the future.

Property List and Acquisition Recommendations

The Town of Barre owns several parcels of land and buildings which are listed on an inventory and maintained in the Assessor's Office.

The Town may want to acquire property when it is in the public interest for such things as:

- Strips for highway connectors
- Parcels abutting Town owned property
- Parcels along significant water resources
- Recreational uses
- Preservation of natural resources

4.5 LIBRARY RESOURCES

Aldrich Public Library

The Aldrich Public Library serves the residents of Barre Town (7,924) and Barre City (9,052). The main library building is located at 6 Washington Street in Barre City, and the York Branch is located at 135 Mill Street in East Barre. All the resources of the main library are available at the York Branch, including books and recordings, public computers, high-speed internet, inter library loan, children's story hour, meeting space, home delivery, and special events.

Patrons can use their borrowers' card at both library locations and return items to either branch. Both libraries also offer Vermont and federal tax forms in season and public copy and fax machines. Patrons have access through their library membership to online databases, foreign language instruction, online courses, and downloadable audio and e-books. These materials can be accessed in person at both libraries and are also available online from home or office.

The main library is open 44 hours per week and houses about 46,000 volumes. Annual circulation is 195,898, and the public can access the internet via 19 public computers. The York Branch is currently open 10 hours a week and houses a book collection of 2,880 volumes. Annual circulation is 8,308, and patrons access the internet via four public computers. Both libraries offer current information and materials in up-to-date formats.

Funds for the Aldrich Library include municipal appropriations from Barre City and Barre Town which currently total \$217,000 (\$114,000 from Barre City, \$103,000 from Barre Town), or \$12.78 per capita. The library budget for 2013 covers both the main and York branches was \$450,000. Municipal funding currently equals 48% of budget, matched by

about \$100,000 from investments, \$86,000 from fundraising, and \$45,000 from fines, fees and grants.

York Branch of the Aldrich Public Library

The York Branch of the Aldrich Public Library was founded in 1910 as the East Barre WCTU Library Association. It became a branch of the Aldrich Public Library in 1982. In the spring of 2012, funding from the estate of Ron York (1945-2009) made possible the expansion of the library in East Barre. Originally a single room, the library now occupies the entire ground floor and now contains a children's room, new computers, and a community meeting space with chairs and tables. The library has new bookshelves and other furnishings have been added along with a handicapped-accessible bathroom. This addition was named the York Branch of the Aldrich Public Library and the grand re-opening occurred on July 29, 2012.

Future Needs of the Aldrich Library

Libraries are constantly evolving. Today's public libraries serve as more than reading rooms, for they offer access to the world via the internet, books and media in new formats from e-readers to downloadable audiobooks, from VHS to Blu-Ray, from e-mail to Facebook. Today's libraries are gathering places for the community, educational facilities for pre-schoolers, and children in need of hot lunch.

To continue to serve the residents of Barre Town and Barre City, the Aldrich Library needs:

- Increased municipal support
- Improved parking
- Additional hours, especially in late afternoon and evening
- Source of funds dedicated to building maintenance

Check www.aldrich.lib.vt.us for hours of operation

Aldrich Public Library
Main Library
6 Washington Street
Barre, Vermont 05641
Tel. 802-476-7550

Aldrich Public Library
York Branch Library
135 Mill Street
East Barre, Vermont 05649
Tel. 802-476-5118

4.6 CEMETERIES

There are three public cemeteries in Barre Town: Maplewood, Wilson and West Hill. There are about thirty burials per year most of which are now cremation burials not caskets. The public cemeteries, as presently utilized, have the capacity to continue to provide the needs of the Town for about 100 years. In addition, there are over ten acres of cemetery land which may also be used which are as yet undeveloped. The Town Cemetery Commission consists of five citizen volunteers appointed by the Selectboard who serve 5-year terms. Grounds are managed by a part-time sexton.

Wilson Cemetery:

The Wilson Cemetery, located on a 21 acre parcel on Websterville Road near Quarry Hill Road, contains about twelve acres of cemetery space of which about seven acres are occupied. This cemetery is over 200 years old and is the final resting place for several Revolutionary War and War of 1812 veterans. Also, many of Wildersburgh and early Barre's prominent figures were laid to rest here, some of these include, Colonel Benjamin Walker, Revolution War Veteran and the Town's first Justice of the Peace. Both Jonathan Sherman and Joseph Thompson of the legendary naming fist fight (see section 2, setting for more details) are buried here. Ezekiel D. Wheeler, the person who won the right to name the Town, choosing Barre, is here. Finally, Ira P. Harrington, the owner of the Cobble Hill Quarry that provided granite for the State House has numerous family plots here. It is also important to note that one section of the cemetery was dedicated to "welfare" burials where many infants and young children are buried. Most of these graves are

not marked.

While the age of the Wilson Cemetery is somewhat noticeable based on the stone and layout, newer sections are laid out more consistently and have hedges to separate lots and trees to provide summer shade. The new section provides a modern setting for families. Another sign of a modern cemetery can be found in the area where the columbarium is located.

In an attempt to meet an increasing demand, the Wilson cemetery became the first publicly owned cemetery in Vermont to have a columbarium in 2008. Time, circumstances, and culture have made cremation a more viable option in bringing loved ones to the final rest. The Wilson columbarium allows the placement of ashes into 12x12 niches. The current columbarium has capacity for 96 niches but there are plans and room for expansion.

The Wilson Cemetery also offers a vault for storage of caskets for those that pass during the winter months. Most cemeteries in this area do not perform winter burials. The Wilson vault provides a safe repository for those awaiting interment.

West Hill Cemetery

The West Hill Cemetery is located in Barre Town near the intersection of Miller and Perry Roads. It is the oldest cemetery in the Town. Unfortunately, its records have been lost over the years. In 1996, residents Robert M. and Shannon M. Murphy searched the cemetery records of Barre Town and Barre City and discovered neither municipality has records of those buried. The following information is taken directly from information submitted by the Murphy's. "Review of the tombstones indicates that the earliest burials were probably in the latter part of the 18th century, with the most recent burials in the early part of the 20th century. The oldest stone is dated 1799; the most recent, 1912. " The cemetery stones have been inventoried and numbered and an all-person index has been created with the names spelled exactly as they appeared on the gravestones.

Maplewood Cemetery

The Maplewood Cemetery is located on Farwell Street and Nichols Road on a lot of 3.63 acres of which about 2.1 acres is presently available for cemetery use. It is about one-half full (approximately 1500 burial sites). Maplewood is notable as the final resting place of William Farwell who founded the Universalist Church in Barre City. William Goldsbury, whose first wood framed house is commemorated with a monument on Richardson Road and members of the Beckley family are also buried here.

Other Burial sites

Saint Sylvester Cemetery

The Saint Sylvester Cemetery is located on Websterville Road across from the Wilson Cemetery, is not municipally owned or operated but is significant when discussing cemeteries. St. Sylvester Cemetery origin dates back to September 10, 1916 when ten acres of land was purchased for \$1,030. The first burial at the cemetery took place in November of 1916 for gentleman who died as a result of an accident at the nearby granite quarries. The cemetery expanded when Rock of Ages kindly donated approximately five acres of land south of the existing cemetery, and in February 2000, the cemetery acquired just less than ten acres of land known as the "Churchill" property on the Graniteville Road. There are no immediate plans for burials in these sections but the space does provide ample room for burials far into the future.

On average, there are 30-35 burials annually. Recent improvements to the cemetery include shrubbery and a new entrance off the Graniteville Road. The original granite posts leading into the cemetery on the Websterville Road have been unused for many years and are scheduled to be erected at this new entrance in 2014.

The cemetery is governed by six volunteer trustees and the pastor of the Saint Sylvester Church. The cemetery is staffed by a sexton and his assistant. They are responsible for all the day to day operations of the cemetery including the

sale of the cemetery plots.

Notable burials in the cemetery include the Reverend Napoleon LaChance and Eugene H. Nerney, both buried within the first circle in front of the granite cross located near the entrance to the Cemetery. Both gentlemen were instrumental in getting the cemetery established. Mr. Nerney was also the Town Clerk of Barre from (approx. 1919 to 1945), Fr. Bernard Messier, Fr. Campbell and Fr. Paul Bouffard, all past priests from St Sylvester's Church are also buried in this cemetery. The granite Cross was originally located at the St Sylvester Church rectory and was moved to the cemetery around 1930.

Private Burial Sites

There are a few private burial sites in Barre Town. The so-called "Sherman Cemetery", located off Sherman Drive, is the historic, family plot of Colonel Nathaniel Sherman. Some people believe he was related to Jonathan Sherman, the man who renamed the Town by winning the legendary fist fight in 1793. Col. Sherman constructed the two brick houses currently located on Sherman Drive today.

Gould Cemetery on Beckley Hill is just above what is now Washington County Mental Health building that was once the sanatorium. There are only a few graves at the cemetery and the people and dates are still unverified.

Cemetery's Future

Between public and private cemeteries in Barre Town, there is sufficient space to bury the deceased for many years to come.

- Continued efforts to properly manage and plan for the future should continue to ensure Barre Town's cemeteries continue to be modern, attractive, and comforting for the deceased and their families.

4.7 RECREATION FACILITIES

Barre Town Recreation Plan

The Barre Town Recreation Plan is designed to provide recreational opportunities for individuals and groups in every age range and of both genders. Ball fields (baseball, softball and soccer) are available for team activities involving youth and adults. There are tennis courts, horseshoe pits, and a bike/pedestrian path. Families and other groups can enjoy the picnic areas (cookers, water, toilets, tables and shelters) as well as lawns, woods and playground areas. The estimated average weekly usage of all Barre Town recreation facilities in the spring, summer and fall exceeds 1,200.

Town Forest

Barre Town residents have identified recreation as a long-term management priority for the Barre Town Forest "the property".

Trails throughout the 355 acre Barre Town Forest connect people to the landscape, to the local history of Barre, and to each other, by providing a place for year-round recreation and cultural education. Due to its proximity to residential areas, the Wilson Industrial Park, the Barre Town School, the Barre Town Forest is easily accessible to a large number of residents for recreation and draws visitors from around central Vermont, New England, and beyond. Recreation and recreation management must be guided by the permitted and restricted uses set forth in the conservation easement (see Barre Town Forest management plan) and also should adhere to several other guiding principles. Through the terms of the easement, passive, non-commercial public access is granted to the property, provided it does not conflict with the other purposes of the easement. Public access will benefit the local and regional tourist economy, provide educational and cultural opportunities, and provide health benefits for residents and visitors alike.

Pedestrian Recreation: The property shall be available to the public for all types of non-commercial, non-motorized, non-mechanized, non-equestrian, dispersed recreational purposes including hiking, hunting, trapping, fishing, wildlife viewing, skiing, snowshoeing, and environmental education.

Equestrian, Mechanical, and Motorized Recreation: Uses such as snowmobiling, mountain biking, horseback riding, and ATV use are permitted only on designated trails and only at the discretion of the Town of Barre in accordance with the easement.

Trails, multi-use trails and single track trails are available.

Trail Signage: Trail Corridor Managers are required to clearly mark designated trails in coordination with the Barre Town Recreation Board.

Recreation Facilities

The Barre Town recreation facilities are located on eight different sites within its geographic boundaries. The total space reserved for recreation totals approximately 46 acres. The distribution is as follows:

Barre E.M.S. lot	- 1 acre - basketball
Upper Websterville	- 1 acre - basketball, swings, see-saw
Upper Graniteville	- 1 acre - basketball, swings, see-saw
Lower Graniteville	- 1 acre - basketball, swings, see-saw
Trow Hill	- 1 acre - basketball, swings, see-saw
East Barre	- 4.8 acre - basketball, swings, see-saw, open field (Christa & Mikayla Foster Memorial Playground)
South Barre	- 1 acre - basketball, swings, see-saw, open field

Barre Town Elementary and Middle School

85 acres - (~ 35 acres are presently used)
2 small baseball fields
1 regulation baseball field
1 lighted softball field
1 soccer field and a running track
4 lighted tennis courts
1 nature trail (1.5 miles)
1 hiking trail (1 mile)
1 picnic area with shelter, sites with barbecues and tables, horseshoe pits
2 school playgrounds with swings, see-saws, slides, etc.
2 basketball courts at school
1 paved basketball court
1 sand volleyball court
1 Travis Mercy skate park
1 bike path to Graniteville (1.4 miles)
2 restrooms structures with flush toilets
2 pit toilets

Recreational Opportunities

Barre Town residents enjoy a wide range of recreational opportunities both in Barre Town and in Barre City. Facilities in Barre City, often used by Town residents include the municipal pool, "Charlie's Playground 2012", municipal auditorium and a Bureau of Outdoor Recreation facility, providing ice skating in the winter and basketball, tennis and street hockey in the summer. The North Barre outdoor ice rink also provides skating. The Barre Youth Sports Association organizes football, soccer, basketball, hockey, figure skating and lacrosse programs for area youth. Also

available are adult softball (men's and ladies), adult men's hockey, adult ladies' broomball, adult soccer, adult baseball, Little League baseball and softball, Babe Ruth League baseball and American Legion baseball. The Thunder Chickens Snowmobile Club and SnoBees Snowmobile Club are also very active and an important winter recreation in this area. Millstone Hill Trail Association which is opened year around and offers mountain biking, cross-county skiing. The Town Forest provides for walking, hiking, snowshoeing and a host of other opportunities.

The area enjoys many regional opportunities including: skiing at Sugarbush, Mad River Glen, Stowe, and Bolton Valley. Golfing in Plainfield, Northfield, Montpelier and Sugarbush. Additional ice skating facilities are located at Norwich University's Kreitzberg Arena, The Ice Center in Waterbury and the Civic Center in Montpelier. There are many open lands to fish and hunt on in the area.

Recreation Paths (Map 5)

Bicycle/Pedestrian paths create a safe means of alternative transportation for bicyclists and pedestrians of all ages and they have the potential to reduce vehicular traffic.

- Links between residential community centers and business areas should be planned and constructed with key destination points located along path alignments. Schools, businesses, quarries, recreation fields and downtown areas in Barre City, Berlin and Montpelier should be considered key destination points located along path alignments.

A path's recreational value is in the wide variety of outdoor activities it provides. Walkers, joggers, cyclists, skaters, snowshoers and cross-country skiers enjoy the benefits of exercise and recreation on community transportation paths. Paths also provide places for families and neighbors to meet and socialize strengthening the sense of community.

Barre Town has several paths either built or in various stages of planning:

1. The Bridge Street to Fairview Street path follows the abandoned railroad bed and extends 1.2 miles. The path is an eight foot wide paved facility that accommodates bicycle, pedestrian transportation and recreational needs. It begins at the Bridge Street bridge in Barre Town and follows the rail bed past the Barre City municipal pool and recreation park. It continues past the Barre City Elementary School and terminates on Fairview Street in Barre City. The path is available to all Town and City residents.
2. The Millstone West segment is a completed section of the Central Vermont Regional Bike Path that is approximately 1.4 miles extending from the Barre Town School to Graniteville Road in Graniteville and passing by the Rock of Ages Craftman's and Visitor Center.
3. In 2009, long time Barre Town resident Charles Semprebon, left \$500,000 to each the City and Town to create a path that would connect the two communities. Still in the planning stages, the "Semprebon Connector Path" will connect the Millstone West to the Bridge Street path.
4. The East Barre path runs from the sharp corner on the Websterville Road in East Barre village approximately ½ mile to Millstone Boulevard along an old railroad bed. The Town recently completed improvements to the section just off Websterville road by a paving a short section. The remainder of the path is gravel. The Town is considering an extension of the path to the Municipal Building, which would allow connection to the Millstone West path using Websterville Road.
5. The proposed Central Vermont Regional Transportation Path is a 14-mile regional bicycle/pedestrian facility which, when completed, will extend from the Dog River Recreation area in Montpelier through Berlin, Barre City and end in Barre Town. Citizen committees in each community have been planning the path since 1994. The Barre Town Conceptual Alignment is available to the public at the Municipal Building.

Barre Town's section of the Regional Transportation Path is approximately 5.3 miles located primarily on abandoned railroad beds. In some areas, the path must leave the railroad bed and follow existing town

roads.

Other sections of the Barre Town Regional Transportation Path include the Millstone Hill North segment, the Millstone Hill East segment, the Graniteville Road segment and the Websterville Road segment. Each of these short sections will be planned and constructed as funding becomes available. For additional information on these path segments please refer to Section 9.9, Transportation, Bicycle Accommodations in this document.

Class IV roads also play an important role when it comes to recreation. These roads are generally not Town maintained but Town controlled public rights-of-way. Today, many of these roads provide vital links for snowmobiles and horseback riders to name a few. The rights to use class IV roads should be retained by the Town to continue the current recreational use and expand it if desired.

Recreation Governance, Funding and Administration

The main recreational site is located at Barre Town Middle and Elementary School and is owned by the Barre Town School District. Other sites are owned by the Town of Barre. There is a joint compact agreement between the Town Selectboard, the School Board and the Recreation Board.

The Recreation Board oversees the recreation program activities and maintains the facilities. There are eight citizens appointed to the Recreation Board by the Selectboard.

Operating expenses for Barre Town's Recreation program are provided through a line item in the general fund of the Town's budget as well as volunteer services and contributions.

The Barre Town Recreation Board, with the help of donated money and volunteer efforts of users and others, has succeeded in developing, improving and maintaining the facilities (ball fields, skate park, tennis and basketball courts, and picnic area) on the grounds of the elementary school. Oversight of these facilities and programs is its major on-going task. This volunteer board has come to appreciate and recognize the crucial role of volunteerism and donated funds and gifts, not only for maintaining present programs but especially for new initiatives to succeed. In keeping with this tradition of citizen-generated recreational facilities and programs, the Recreation Board invites community support and citizen participation.

4.8 SOLID WASTE

Barre Town is a member of the Central Vermont Solid Waste Management District (CVSWMD). The CVSWMD provides solid waste implementation planning to meet State of Vermont requirements. This planning includes the development of state required 10-year Solid Waste Implementation Plans and updating of the plan; all public hearings on the plan and plan changes; and all responses to the state's review of the plan. All administration, reporting, monitoring, enforcement, and outreach involved with meeting state requirements that Barre Town would have to take on our own if not for being a part of the solid waste district. This would include writing and adopting solid waste ordinances such as the mandatory recycling ordinance; public education about solid waste laws; and monitoring and enforcement of solid waste ordinances.

Central Vermont Solid Waste Management District member cities and towns get the benefit of many services as part of their membership in the district. One of the main services offered is that they are the go-to resource on all things solid waste in Central Vermont. CVSWMD provides leadership, education, and services for residents and businesses in reducing and managing their solid waste in order to protect public health and the environment to the greatest extent feasible.

An important part in solid waste disposal is the many privately operated roadside collection sites throughout Town. These sites provide easy disposal of household trash and recyclables. Barre Town also provides space within the Wilson Industrial Park for a large transfer station which allows Town residents and others a centrally located site to conveniently dispose of household trash and recyclables as well as many other items such as tires, scrap metal,

electronics and some hazardous waste. This site, while once run by the CVSWMD is now privately operated.

- The Town should continue to support these convenient methods of trash disposal.

The Town augments the CVSWMD and private sector services with its own solid waste services. Twice a year the Town affords residents an opportunity to dispose of bulky trash items. In 1997, the Town started a lawn waste drop-off and composting site on Holden Road. The site was further developed in 1998 again in 2005. Residents may drop off grass clippings, leaves, tree branches, and hedge clippings. The grass and leaves are composted. The branches are chipped. These materials are available free to residents. The Holden Road site hours vary based on the time of year but generally it is open two days a week, Saturday being one of them. The site has extended openings in the fall. The site is staffed by volunteers or Town employees to help control illegal dumping. A Christmas tree collection is offered as well and the trees are mulched at this site for use by residents.

Barre Town participates annually in Vermont's Green Up Day. From time to time, residents or groups clean up illegal dump sites and/or Adopt-A-Sites. The Town may offer general assistance and pay for disposal costs.

The Town should:

- Continue participating in regional approaches to solid waste management;
- Support recycling efforts whenever possible;
- As long as necessary, offer the bulk trash collection services;
- Enhance the lawn waste drop-off site to serve the growing suburban population;
- Consider offering disposal services for other types of items/materials as the need arises;
- Continue keeping roadsides clean and cleaning up illegal dumpsites with volunteers or Town Employees.

4.9 SOLID WASTE FACILITY

A solid waste facility may be permitted as a conditional use in Low Density Residential zones (or similar large lot residential zoning districts, except the Conservation zone) or in Industrial zoning districts provided the facilities are constructed, maintained, and operated so as not to unduly impair the public health, safety, welfare, or the natural environment. The solid waste facility may be permitted as a conditional use and may be recertified to continue operating only if it is in compliance with all State and local regulations. The term *facility*, for this paragraph and those that follow, includes landfills, waste incinerators, waste composters, waste processors, waste collection, storage, and transfer stations. The term *solid waste* is defined in 10 V.S.A., Section 6602.

The first permit for a solid waste facility shall not be issued and a finding of conformance with this Plan under 10 V.S.A., Section 6605 (c) shall not be declared when the area of operation and/or ingress or egress is within 2500' of:

- One or more residence;
- A food processing facility;
- A licensed or registered daycare;
- Schools;
- Health care facilities;
- Publicly or privately-owned outdoor recreation facilities.

A solid waste facility shall not be permitted when its disturbed (graded, excavated, filled, improved, built-on) land is within 300' of environmentally sensitive areas. A permit or finding of conformance for a re-certification of a previously-permitted facility shall not be denied solely because after the original permit one of the facilities, land uses,

or businesses listed above is sited in the setbacks listed above.

Before a finding of conformance with this Plan under 10 V.S.A., Section 6605 (c) is issued, the applicant must: 1) obtain all required approvals or permits from the town; 2) pay up-front all of the town's projected cost (if any) for hiring a qualified public health professional who will conduct a health risk assessment; 3) pay up-front all of the Town's projected cost for constructing services (if any) necessary to evaluate the application and impacts caused by the facility; and 4) negotiate and sign a host town agreement (negotiations cannot be concluded before all town permits are issued).

The host town agreement shall address, but is not limited to, provisions for:

- Funding of the costs associated with Barre Town hiring an appraiser to determine real property depreciation related to the development and operation of the facility;
- Compensating impacted property owners for the full amount of property devaluation resulting from the proposed facility;
- Paying annual impact fees to cover any increased cost for infrastructure development and maintenance;
- Paying Barre Town a per ton tip or processing fee surcharge for solid waste received at the facility;
- Protecting prime agricultural land elsewhere in Barre Town as off-site mitigation for prime agricultural lands impacted by the facility's development. This protection may be accomplished by either outright purchase of similar agricultural value land not already protected or through the procurement of a conservation easement on land of similar agricultural value.
- Granting rights of entry to town officials for the purposes of inspecting the facility for compliance with town and any other facility permits;
- Establishing aesthetic buffers to minimize off-site visual impacts from residences or public highways that are within 1500' of the facility and have a clear view of the facility;
- Mitigating conditions predicted by the health risk management.
- Ensuring the facility operator, for as long as potential for public impact exists, will be responsible for, including financially post closure requirements such as monitoring, testing, repairs, replacements, and mitigation.

4.10 EMERGENCY SERVICES

Police Department

The Barre Town Police Department is housed within the Town of Barre's Municipal Building located at 149 Websterville Road in Websterville, VT.

An outside storage area is located at Department of Public Works, also on Websterville Road.

Currently the Town of Barre Police Department has one (1) Chief, one (1) Sergeant, six (6) Police officers, and a specialized unit of one (1) canine and also employs one full time dispatcher/clerk, who works at the department during normal business hours. The dispatcher/clerk handles the administrative functions of the department, including data entry and preparation of paperwork that is sent to the State's Attorney office for prosecution. In addition, the dispatcher/clerk has been trained in the answering and dispatching of both routine and emergency calls for service. The police department has the capability to dispatch for the Town police, fire, and ambulance services should the need arise. The dispatcher/clerk also serves as a backup dispatcher when Lamoille is unable to provide the service.

Currently, the Town of Barre Police Department is dispatched 24 hours a day, seven days a week by the Lamoille County Sheriff's Department as per contract.

Within the past seven years (2007-2013), Barre Town has shown an increase in growth in housing and our population continues to rise with approximately 100 miles of public road to be patrolled.

- The Police Department sees a need for two (2) more police positions to be added to the 7 officer force. A total of nine (9) police officers and one (1) Chief would allow the department to keep up with the demands of continuing quality police services to the community.

Growth in the Wilson Industrial Park, along with new commercial and residential properties, affects police department staffing levels.

- Strategies to assure an effective enforcement in the future must include additional staff development and a continuing commitment to ensuring community safety.
- This can be done by continued training and keeping the department well equipped.

In looking towards the future, the Barre Town Police Department forecast an increase for public service. It is expected that the number of calls for service will increase in future years.

The Barre Town Police Department has a vehicle inventory of five marked cruisers including one canine vehicle used by the canine officer and one used by the Chief of Police. The Town replaces a marked vehicle every year.

The department purchases, maintains and replaces a variety of uniforms and equipment to support department personnel including side arms, side handle batons, shotguns, radar equipment, leather gear, uniforms, communications, emergency lighting equipment, portable and mobile radios.

Computer usage is contracted from the State of Vermont and is tied into a statewide computer aided dispatching (CAD) system. In 2011, all police cruisers were outfitted with mobile data terminals allowing officer's access to CAD and other useful information.

Emergency Medical Services (Ambulance) Department

Barre Town EMS is a regional ambulance serving five towns in Central Vermont providing 24 hour a day seven days a week coverage. The Department operates two 24-hour stations. The primary station is located at 4 McLaughlin Road in East Barre and houses three ambulances. This station is responsible for emergency coverage of Barre Town, Washington, Orange and Topsham, as well as all non-emergency long-distance transfers.

The secondary station is located in Berlin fire station at Berlin Four Corner, (Intersection of Paine Turnpike and Route 62) and houses one ambulance. This station is responsible for emergency coverage in the towns of Berlin as well as emergency transfers.

Additionally, a fifth ambulance is quartered at the South Barre Fire Station on Route 14. The department also has a 12-foot Mass Casualty Incident trailer capable of resupplying the ambulances in the field; treating up to 75 adult and 50 pediatric patients.

There are 12 full-time employees; 6 critical care Paramedics and 6 advanced EMT. Full-time employees work 24 hours on shift and 48 hours off. There are approximately fourteen part-time employees, 10 licensed at the advanced EMT level, 4 Paramedics. Part-time employees provide emergency coverage when either station is empty, for long-distance transfer coverage, or to fill openings in full-time shifts. There are 4 permanent part-time staff (2 Paramedics, 2 advanced EMTs) assigned to a third ambulance for 911 calls, local and long-distance transfers, Monday through Friday.

The EMS Department is capable of fielding three ambulances immediately and a fourth ambulance in twenty minutes or less as the coverage crew reports to the East Barre station. All five ambulances are identically equipped and the crews are able to provide advanced airway management, drug therapy, and cardiac care. The department is also capable of transporting patients requiring specialty care such as ventilators and syringe pumps. The EMS Department can transport as many as five critically ill or injured patients or up to ten less severely ill or injured

patients. Barre Town also has mutual-aid agreements with the cities of Montpelier and Barre, as well as Williamstown, Northfield, Cabot, Waterbury and Mad River Valley. These departments can provide an additional seven ambulances for emergency coverage or mass casualty incidents.

The EMS Department has contracts with fifteen towns providing them with Paramedic Intercept service; Cabot, Marshfield, East Montpelier, Calais, Plainfield, Woodbury, Hardwick, Walden, Northfield, Roxbury, Warren, Fayston, Waitsfield, Moretown, Williamstown.

Advanced life support training is available in-house for all employees. These certified courses include; pre-hospital trauma life support (PHTLS), emergency pediatric care (EPC), advanced cardiac life support (ACLS), pediatric advanced life support (PALS), advanced medical life support(AMLS), and Critical Care Paramedicine.

Fire Department

Fire protection for the Town is provided by the Barre Town Fire Department. The department was formed in 1962 when it took over the assets of the East Barre Hose Company. The East Barre Hose Company was formed in the 1890's and provided fire protection to the village of East Barre (formerly known as Carnes Mill). Fire protection for the remainder of the Town, at that time, was provided by the City of Barre.

Upon forming in 1962, The Barre Town Fire Department expanded its coverage area around the village of East Barre. However, it was difficult for the entire Town to be protected from East Barre so the City was still relied upon for fire protection to a large part of the Town. The dependence on Barre City changed greatly when in the early 1970's; Barre Town added another fire station in the village of South Barre. With these two stations, the Town was able to cover most of the Town with fire protection. There have been various agreements (some written, some not) over the years with the City to continue to assist the Town with structure fires by way of the Capital Fire Mutual Aid System.

- A more formal automatic mutual aid agreement for structure fires should be entered into.

The South Barre Fire Station was doubled in size in 2001 by adding two additional full length bays. The roof to the rear of the building was constructed higher than the rest of the building to allow for storage now and the possibility of living quarters in the future. A new dispatch and training room were also added with the addition.

The fire department is a call/paid fire department which means that the firefighters are paid an hourly rate when dispatched to a call. Many hours are donated by members on a yearly basis for special projects and fundraisers which sometimes gives the department the feel of a volunteer department. The fundraising is done by club entities at each station. In East Barre, the club is known as the East Barre Hose Company while the crew in South Barre is known as the South Barre Firefighters Club.

The department is dispatched by the Lamoille County Sheriff's Department along with Barre Town's other emergency services. Department members are issued voice pagers which have unique "tones". Upon receiving an emergency call, dispatchers will send out a tone which in turns activates the pager which is followed by a voice message as to what is the emergency. This method of alerting members to calls replaces the old phone system that was utilized many years ago.

- It is important for this paging equipment to be kept up to date given its significance in the response process.

Not that long ago the Town was divided in to two response territories with each station being assigned a territory and responsible for being the primary responder to that territory. The location of the emergency dictated which station was "toned". That method was changed as it was felt the citizens were better served by drawing from all personnel and equipment for most all calls regardless of where the emergency was located. It was also confusing for dispatchers and now offers better continuity between stations.

- This method has worked well and should continue to be the way the department responds to calls.

The Barre Town Fire Department, and the East Barre Hose Company before it, has been fortunate over the years to have many dedicated individuals serving the people of the Town. That tradition continues today. However, what seems to be a national trend towards less and less volunteerism has been felt locally by the Fire Department. The Barre Town Fire Department has a roster capacity of 45 members, the average membership is in the mid 30's.

- Greater efforts towards recruitment and retention and incentives should be explored to help attract new members to the department.

A Chief and a Deputy Chief oversee the day to day operations of the department as a whole while each station has a "Station" Chief. The Station Chiefs are Assistant Chiefs. Each station has a Captain and two Lieutenants. The Chief is appointed by the Selectboard upon recommendation of the Town Manager. All other officers are appointed by the Chief with Town Manager approval. Officers, including the Chief, serve three year terms. Firefighters are hired in the same manner as all other Town employees.

The department operates under Standard Operating Guidelines (SOG's) created by the officers and approved by the Town Manager.

- Regular review and revision of the SOG's is important to ensure the department is run in a manner that reflects the constantly changing world of firefighting.

The equipment listed below is what the Town currently utilizes to provide fire protection. Planning for future equipment needs and how the equipment is used is ongoing. Currently the life span of a pumper is about 25 years. Typically, the 25 year life span is accomplished by doing a refurbish when necessary. While tankers were previously made out of old municipal plow trucks, the Town has recently purchased a new cab and chassis, had new tankers designed and built by fire truck manufactures.

- The practice of professional design and build of all trucks should continue as the best way to ensure the safest and most dependable equipment available.

Recent purchases of two new pumpers and two new tankers has gone a long way towards providing the firefighters with the best equipment possible to do their job and to assure Town residents that their fire department is fully cable of providing adequate fire protection

Current Vehicle Inventory

East Barre

2-Pumpers

1-Tanker

1-Heavy Rescue

1-4x4 pickup/wild land truck

1-All terrain rescue vehicle w/med skid
(Replaced snowmobile rescue unit)

South Barre Station

2-Pumpers

2-Tankers

1-Multi Purpose pumper/rescue/wild land

Emergency Management Department

The Town of Barre Office of Emergency Management is established under Vermont Statute Annotated, Title 20, Section 6 and the Town of Barre Emergency Management Ordinance Chapter 3, Section 3-1 to 3-2.

The Town Manager is the Emergency Management Director who appoints the Emergency Management Chair. The Chair is in charge of the day-to-day operation of the Emergency Management Office.

Emergency Management is charged with carrying out the basic government functions of maintaining the public peace, health, and safety during an attack or disaster.

The Town of Barre has an operating Emergency Operation Center and disaster plan. The operation center is located in the basement of the Municipal Building in Lower Websterville.

Display E911 Street Addresses

The rural character, climate and terrain of Central Vermont all impact the ability of emergency responders to find property in a timely manner. Displaying E911 addresses, which is the physical address of a property, is required by Town Ordinance. A property owner can be fined for not properly displaying the address. To properly display an E911 address, 4" numbers must be displayed and they must clearly be visible from the road. Structures with long driveways or ones that sit back from the road need to have numbers out by the road and on the structure itself. If a structure shares a driveway, then numbers on the structure or at the driveway split should also be installed. The Town should more actively pursue enforcement of non-complying property owners

4.11 CONCLUSION

While growth is inevitable and desirable, it can have many impacts on a Town. Town facilities such as schools, libraries, cemeteries, emergency services, and solid waste can be impacted if not considered in the planning process. In addition, expenses related to municipal services can burden thin budgets if not managed carefully. At this time, the Town has capacity to adequately handle population and economic growth.

5. PRESERVATION

5.1 INTRODUCTION

Barre Town is rich in natural resources and areas of natural beauty as well as in numbers of historic sites and structures within its land mass of 30.70 sq. miles. This plan touches on examples of some of those and recommendations for preserving these unique assets where possible.

Barre Town's early development occurred without much concern for aesthetics. Early settlers' needs were heavily agricultural and deforestation occurred in order to accommodate pastures and fields for livestock and land for growing of food. Granite quarrying developed in the Town during the 19th and 20th centuries further baring the land.

As time progressed – so did appreciation for natural resources and the history of the area and in recognizing our multi-national culture prompted in large part by immigrants who came to work in the granite industry. Within the last 25 years the Town has shown a marked increase in aesthetics and protection of natural areas. Recent development has been conceived and planned with "the view" and "green spaces" as dominant factors. Some developments have incorporated restrictive covenants concerning the height and placement of structures thereby protecting views of neighbors and passers-by. Aesthetics have also made their way into local zoning and state development laws.

5.2 SCENIC AND HISTORIC FEATURES

Quarries

Most notable of all Barre's scenic resources are the quarries from which are built such fine granite structures as the Vermont State House in Montpelier, the renown Robert Burns statue located on the grounds of the Vermont History Center in downtown Barre, thousands of cemetery memorials and commemorative structures throughout the country, and hundreds of other granite-faced, granite-trimmed buildings throughout the world. The Wells-Lamson Quarry, now dormant and owned by the Rock of Ages Corp. is notable because at over 600 ft. deep, it is among the deepest granite quarries in the world. A few "quarries" are not the expected holes in the ground that later quarrying methods came to develop but rather, were "walls" of granite from which stone was taken.

Views and vistas

Views from elevated areas of Barre Town are also among the most recognized scenic assets of this community which was blessed with a geography that created a natural "rim" nearly surrounding the valley below - once a part of the original Wildersburgh, the lights of the City of Barre now add to the evening and nighttime vistas. Notable within the views are Camel's Hump in Huntington (sometimes shown on maps as "Couching Lion"), Spruce Peak in Plainfield, the Worcester Mountain range to the west, and the Orange highlands including the Knox Mountains to the east.

Roads and waterways

Within the Town are a number of beautiful maple tree-lined dirt roads such as upper Cassie Road, Sunset and Neddo Roads, Phelps Road, Little John Road and Snowbridge Road. Peck's Pond, Bolster Reservoir, Gunner and Scott's Brooks, Jail Branch River, and Windy Wood Pond are examples of other scenic areas.

5.3 HISTORIC AREAS

Villages

Early development of Barre Town occurred in village areas surrounding employment centers. These villages eventually developed their own names and post offices within the Town - Graniteville, Websterville, South Barre and

East Barre. Within them are examples of early quarry workers homes, usually similarly constructed, such as on the east side along Cogswell Street in Upper Graniteville. Another popular house style is the Sears Roebuck and Montgomery Ward early version of pre-fabricated houses (available with plumbing and electrical if one chose to purchase the whole package) such as the house at 54 Brook Street in Websterville. The South Barre village has notable large wood framed houses thought to be custom built - one at the corner of Saeger Lane and South Barre Road (VT RT 14) dating to 1803 and two side by side on the west side of VT RT 14 at 397 and 411 South Barre Road, one of which local lore relates was a safe haven offered as part of the Underground Railroad which moved African American people to safety in the north.

Also a part of village history is the traditional churches such as the East Barre Congregational Church and First Presbyterian Church in Graniteville. Traditional construction also remains for several grocery stores such as 34 Church Hill Road in upper Websterville, now the Millstone Hill Touring Center. Scattered throughout the town are barns that remain though the "farming" may have stopped some years ago – examples are the Swift barn on Swift Road, the Usle "Strawberry Grove" barn at 109 West Cobble Hill Road, and the Paquet Farm at 179 Morrison Road established in 1909 in the South Barre area.

Town Forest

The newly acquired (2012) Town Forest, 355 acres in size, gives visitors a very real sense of following the paths of industrial history as they ramble on through old railroad beds, over steel cables, and up onto grout piles of long ago that now offer scenic lookouts such as the stunning Empire Lookout at the northeast corner of the Forest. On hot days, visitors can stop by a cool spot created by ice deep inside some of the large grout piles. Throughout the Town Forest are some 70 early and very early quarries that supported small, often family-run, stone businesses.

Stone Walls

Prized among the "locals" also are the numerous stone walls throughout the Town traversing fields and woods – built to clear fields and mark boundaries of land owners.

Cemeteries

These are a treasure of the examples of the work of exceptional artisans, present and past. Older stones are of particular interest because they were carved without benefit of modern methods but rather using the very basic tools of the industry at that time. A rich history can be gleaned from the cemeteries of West Hill (Perry Road), Wilson (Websterville Road), Saint Sylvester (Websterville Road), and Maplewood (Farwell Street). Singularly situated off Miller Road is the family plot of Col. Nathaniel Sherman, early settler, whose relative Jonathan Sherman reportedly chose the name "Barre" in the legendary "naming of Barre fight".

5.4 HISTORIC SITES

Calvin Smith Farm

277 Morrison Road (now Bond Auto Parts) – where the legendary "naming of Barre fight" occurred in which Jonathan Sherman of Barre, Massachusetts won the fight over Capt. Thompson of Holden, Massachusetts. In actuality, town records indicate the most generous contributor to "a house of worship", Ezekiel Dodge Wheeler, was given the privilege of naming the town. The farmhouse dates to 1791.

The Morrison Farm

A large two-story brick farmhouse at the intersection of Morrison and Jensen Roads which was the site of the first settlement in what was then called Wildersburgh.

The Goldsbury Site

The site of the first framed house, a cape, built in 1800 and lost by fire in the 1960's is at the east side of Richardson Road near Goldsbury Woods Road. The site was appropriately memorialized in 1969 with a granite marker donated by the Barre Historical Society and the Rebecca Hastings Chapter of the Daughters of the American Revolution.

"Sky Route" Railroad Spur

Built in 1890, a rail spur leading to Millstone Hill (Websterville/Graniteville) from Barre City was used to transport the heavy granite down the hill to numerous granite "sheds" and for shipment abroad. The rail line had a tremendous economic impact on the industry because it made transporting granite much easier. The Sky Route was noteworthy for being the steepest grade rail line east of the Mississippi at the time, climbing 250 feet every mile.

Nine Former Neighborhood School Sites

Many of the early schools were one and two room schools offering education for grades 1 through 8. Locations were Upper and Lower Graniteville, Upper and Lower Websterville, East Barre, South Barre, Trow Hill, Springhouse and Brookside. Many of the old school bells from these sites are on display at the Barre Town Elementary and Middle School on the Websterville Road. School buildings continuing to be re-purposed and used are Brookside (Bates & Murray Inc.), Springhouse (Barre Town EMS Building), and Lower Websterville (Barre Town Municipal Building). Demolished were Trow Hill and Graniteville, both of those sites are now Town playgrounds, and the South Barre and East Barre school locations, now both sites host Town fire stations.

5.5 HISTORIC STRUCTURES

Antique Brick Capes

Many such capes are scattered around the town and were often built by early quarry founders. Most if not all are currently in use as private residences.

Trow Farm

Notable among the antique brick capes is the Trow Farm at 262 Hill St., after which is named the Trow Hill area. At one time, the farm reportedly had 7 barns and offered transportation and overnight accommodations to travelers on the Haverill, NH and Boston to Montreal Stagecoach route disembarking downtown.

The "Granite House"

The first granite house in town is located at 216 West Cobble Hill Road at the intersection with East Cobble Hill Road. Known as the Pliny Wheaton house, granite was used from the Wheaton Quarry a short distance away on Nuissl Road

The Nichols House

Located at the intersection of Waterman St. and Little John Road in East Barre, the Nichols House may represent Barre Town's only structure listed on the National Register of Historic Sites. It is a very early example of this popular building type in Vermont and is one of few remaining dwellings in the area built by a family in the first wave of settlement.

Robin's Nest Covered Bridge

A privately owned covered bridge over the Jail Branch of the Winooski River at 625 East Barre Road (US RT 302) and that leads to a log home situated on 16 +/- acres, also privately owned. Built in 1962 by the Robbins family

and, even though not historic, the bridge is notable for its queen post design, built as a replica to one that stood just downstream and was swept away in the Vermont Flood of 1927. It is of authentic design and construction. In 1990 owners installed steel beams to reinforce the deck. This represents the Town's only covered bridge.

Washington County Sanatorium

A three story large brick structure at 260 Beckley Hill Road built to house patients with tuberculosis, an unfortunate circumstance from working in granite sheds before modern dust-collecting machinery was available.

5.6 HISTORIC DISTRICTS IN BARRE TOWN

Upper Graniteville, Lower Graniteville, East Barre, South Barre Village

The list of Vermont Historic Sites and Structures, identified for Barre Town, is available in six volumes (not available in digital form) from the Vermont Division for Historic Preservation located at: 1 National Life Drive, Davis Bldg, Basement Level, Montpelier VT 05620-0501. Phone 802-828-3213. Fax 802-3213.

Additional information available at: http://accd.vermont.gov/strong_communities/preservation.

Information from the National list of Historic Structures is available at <http://www.cr.nps.gov/nR/research/index.htm>

5.7 RECOMMENDATIONS

- It is in the best interest of Barre Town to preserve and promote its significant historic resources, architecture, and sites therefore the Town will pursue and encourage maintenance of those currently in existence and plan for future such preservation needs.
- The Town should establish a Town Historical Society and/or join existing Historical Societies or similar groups for the following purposes:
 - Creating a master list of historic structures and sites and making the list readily and locally available to the public.
 - Locating Town historic structures/sites on Town maps to be used for planning and zoning.
 - Providing educational programs to schools and the general public.
 - Encouraging rehabilitation and recognition of historic structures/sites including, for example, a program to put dates of construction on older homes, antique capes, now-extinct neighborhood school sites, and notable historic as well as operating granite quarries.
- Require a local permit and public hearing for the proposed demolition of a listed historic structure/site. As part of that permit, the State Division for Historic Preservation should be consulted prior to the demolition.
- Explore state and federal funding for restoration such as Grants Administration for non-profit or Town-owned historic structures and the Tax Reimbursement Act for Commercial Structures, etc.
- Encourage the preservation of our heritage through support of existing efforts that do that such as the Vermont Granite Museum of Barre, the Barre Heritage Festival, etc.
- Encourage the preservation of stone walls when considering subdivisions.
- Undertake the planting and re-planting of maple trees along roadsides in cooperation with arbor programs and other possible funding.
- Establish and enforce enhanced penalties for damage to cemeteries caused by vandalism and carelessness.

- Take steps to assure public access to “nature” - swimming holes, fishing, trail walking/biking, picnic areas, river parks, etc.
- Encourage stream bank preservation and buffer zones.
- Preserve public use of Ancient Roads – roads appearing on maps but not currently suitable for vehicle use.
- In all matters of historic preservation, Town officials are encouraged to partner with others of the same purpose so as to maximize results toward achieving the goal of preservation.

5.8 SCENIC PRESERVATION

Barre Town's visual beauty is an asset which the Town has to offer to any prospective resident or employer who is considering relocating to the community. The determination of aesthetic value is very subjective. It is very difficult to impose fair and uniform aesthetic standards on proposed projects within any community. Therefore, the Town of Barre's policy regarding aesthetics is one of encouraging enhancement and conservation of natural areas, views, and vistas rather than one of imposing penalties and restrictions.

- Development should not be restricted by aesthetics alone.

The following are goals and recommendations regarding scenic preservation in the Town of Barre:

- Consider aesthetic upgrades and visual enhancements on Town owned land and right-of-ways.
- Ridge lines have yet to be mapped within the Town but doing so may prove helpful as ridge lines play a greater role in both power production and aesthetics. Those areas which are identified should be protected by zoning and subdivision regulations to preserve natural ridge lines.
- Full size industrial wind turbines are not a good fit for the Town and should not be allowed due to relatively low ridge lines, aesthetics, the absence of large tracts of unpopulated land, and numerous other negative effects (see 8.5 renewable energy). Small to mid-size units have similar concerns and siting criteria must take into account all the potential negative effects before being allowed. An example of a medium size turbine would be the one located at Rock of Ages.
- Overhead power lines can also have a negative effect on aesthetics. The Development Review Board should continue the practice of requiring underground power whenever possible for new development. This would also include transmission lines for both wind and solar projects such as stated above.
- Zoning regulations should continue to control the height of structures to preserve the scenic view of others.
- Tree-lined areas of roadways should be preserved particularly if the trees are old and such areas encouraged by appropriate subdivision regulations and encouragement to property owners. However, new trees along roadways should be set back away from roadways far enough to prevent interference with highway maintenance.
- The Town should promote the development and preservation of public scenic areas such as trails, ponds, swimming areas, picnic areas and railroad beds for continued public use. The Town may wish to consider acquiring these properties if a change of use is contemplated in the future.
- Site plan approval under 24 VSA § 4416 should continue to be used to ensure that landscaping and appropriate screening of all applicable projects occurs. Site plan criteria should be continually evaluated to ensure they are effective.
- Developers of subdivisions and any commercial/industrial development should be required to provide

landscaping as a part of their projects. Greenbelts are defined as those areas located between any road and lot or building frontage that designates an area for the planting of grass, shrubs, flowers, trees or landscaping of any other kind. They should be provided in all plans for subdivision, conditional use and site plan, for existing properties or new projects. Greenbelts contribute aesthetic beauty and favorably affect the scenery and character of the neighborhood. Scenic paths and public areas may be required by the Development Review Board (DRB) as appropriate. Those plans shall require approval by the DRB during project review.

- Zoning provisions should be adopted which require appropriate energy efficient project lighting, including, but not limited to LED technology or other subsequent energy efficient technologies
- The Town should explore all sources of funding for the development and acquisition of public scenic areas and also assist landowners with opportunities for funding sources and mediation measures.

5.9 RESOURCES TO BE PRESERVED FOR RECREATIONAL VALUE

The Town supports the preservation of rare and irreplaceable natural areas, scenic and historic features and resources in recognition of the value of recreation. The following opportunities should be continued, maintained, preserved, developed and/or upgraded, including any or all within the Barre Town Forest:

- Playgrounds, basketball courts, skate parks, soccer field, ball fields, tennis courts, a volleyball court, and picnic shelters.
- The Gunner Brook Fishing Derby is an annual tradition for children sponsored by the Barre Fish and Game Club. The fishing derby was the first designated derby in the nation for children under sixteen.
- Traditional links between natural resources and recreation: skiing, cross-country skiing, fishing, sledding, skating, hiking, camping, hunting, snowshoeing, snowmobiling, geo-caching, and four wheeling.
- The Town encourages recreational activities that reflect and celebrate the ethnic origins of Town residents.
- Bicycle/pedestrian paths and abandon railroad rights-of-way.
- Class IV roads and public trails.
- Fishing streams; Stevens Branch, Gunner Brook, Jail Branch and Scotts Brook.

5.10 NATURAL RESOURCES

Natural resources play a major role in the selection process used in deciding to live and work in a location. Some natural resources such as, topography, soils and water resources alter the capability of land to support population. Others, such as forestlands, farms and natural areas present aesthetic features which help define the quality of life for citizens. All natural resources warrant careful consideration in the Town Plan and review of future development in a continued effort to maintain and improve the quality of air, water, wildlife and land resources.

5.11 CLIMATE, TOPOGRAPHY, SOIL, AND EARTH RESOURCES

The Town of Barre enjoys the complete range of seasonal changes and a true New England climate.

Average summer temperatures of ~75F degrees and winter averages around 22F degrees are prevalent, with winter extending from November through April. Winter and spring thaws may create conditions known as "mud season", on unpaved roads which make up approximately 30% of Barre Town's highway system. As a result, transport of heavy loads over some roads is restricted, or may require special permits; this permit period runs from about November 1 to

May 1 annually. Deep frost lines also result in a construction season of limited length, especially affecting infrastructure and foundation construction.

Summer, with a growing season of about 110 days, enjoys mild temperatures of 75 degrees to 85 degrees; seldom more than five (5) 90-degree days; lush green landscapes; occasional showers or thunder storms and profuse wild-flower displays. Average annual rainfall is 33+/- inches. Average annual snowfall is 75-90 inches.

The fall colors in Barre Town, enhanced by a topography offering a wealth of panoramic views and tree-lined byways, are some of the most spectacular in the Northeast.

Extreme climate events, such as hurricanes and tornadoes, are rare. However, recent severe and prolonged rainstorms have caused localized serious erosion and road washouts. While we cannot predict with certainty that these events will be the norm in the future.

- It is important to consider the best mitigation measures when repairing and planning Town infrastructure.

Saturated spring soils, valley river branches and alluvial fans can bring moderate flooding. True 100 year floodways are significant only along the valley basin branches which feed the Winooski River and in a few tributary stream beds which tend to be of moderate impact.

Topography and Slope

Barre Town, being a series of hill-tops surrounding valley feeder "branches" for the Winooski River, offers impressive views; lush landscapes; and, steep, winding roadways. Views of Camel's Hump and Spruce Mountain are prized by residents, though more pastoral settings and scenic locations prevail in the community. The railroad on Quarry Hill is the steepest grade in Vermont and revolutionized granite mining for the township. Astride Barre Town's highest elevation are the granite quarries and man-made peaks of granite waste (grout), which highlight this unique scenery. Slopes in excess of 20% are not uncommon, and simultaneously serve to enhance the aesthetic appeal of Barre Town while posing environmental planning challenges for development. The challenges include erosion control, sewage management, site design, road or driveway integrity, surface water run-off and seasonal access. The advantages are: residential privacy, outstanding views, and seasonal beauty. Elevations vary from South Barre at 680', East Barre at 1,130' and Lower Graniteville at 1,269' and Upper Websterville at 1,313' to Upper Graniteville at 1500', which represents the highest of the village centers elevation. The highest elevation of 1,825' in Barre Town is the Pinnacle off Cutler Corner Road.

Soil Types and Earth Resources

Soil Types

The US Department of Agriculture Soil Conservation Service has recorded and mapped soil types throughout Barre Town. Soil types predict the physical capability of the land to handle development and the resource production potential of the land. Unfavorable soil types for development typically contain the following properties excessive slope, shallow depth to bedrock, wet, unstable, and erodible soils. Before development, these soil maps should be reviewed to learn of possible on-site septic limitations, drainage problems, bedrock interference, etc.

For example, in the immediate granite quarry areas, the soils have been removed to facilitate the mining of granite. Beyond that excavation, the soils are Glover-Vershire complex rocky soils. The slopes in this area range from 15 to 35 percent and the soils are composed of soils that are generally unsuitable for septic tank absorption fields and cultivated crops. There may, however, be pockets of suitable soils for on-site septic disposal. Mound systems in areas that are not steep can be utilized.

As the slopes become more gradual, prime agricultural soils can be found throughout Barre Town. These soils are well suited for crops, hay and pasture. Buckland silt loams are found at slopes of 3 to 15 percent and

are generally deep to bedrock. It is susceptible to erosion at the steeper slopes and drainage ditches can be used to help control it. The soils have seasonable high water tables at various depths and on-site monitoring should be done to determine suitability for on-site septic disposal. In the South Barre area, between Berlin and Route 63, significant pockets of prime agricultural soils extend down towards Barre City. These soils are valuable to crop production and should remain in farming/low density type uses.

Knowing the soil types on parcels of land, particularly where primary agricultural soils are is a valuable planning tool that benefits the public. Maps should be obtained from the Town of Barre Planning and Zoning Office to assist residents and developers alike.

Earth Resources

Barre Town's earth resources include granite, gravel, sand and topsoil. Barre Town presently owns and operates a sand and gravel pit on VT RT 14, in Williamstown. The quarries provide jobs and yield important materials for construction and manufacturing. The Town of Barre recognizes the granite grout piles as a natural resource and encourages their appropriate use.

While mineral extraction areas do provide important and needed materials for road and building construction as well as manufacturing:

- It is vital that care be taken in the setting and operation of future mining and extraction operations in order to avoid land use conflicts, environmental damage and habitat destruction.
- Additionally, in residential and conservation areas, standards should be established for the operation, maintenance and ultimate restoration of mineral extraction land.

5.12 FOREST LANDS

By the mid-1800 some 75% of Vermont had been cleared of forested land and since then, much of Vermont has been returned to wooded land

Vermont is now 80% wooded while Barre Town is approximately 48% wooded, (estimated from 1979 composite orthophoto map of the Town). Present uses of forested land include recreation, water quality, scenic backyards, as well as wildlife habitat and wood products (lumber, firewood, maple syrup, etc.). The forest land in Barre Town is presently divided into the following major categories: Protective, Productive, Transition, and Urban.

Protective

(22% of the forested area) is defined as those areas with forest cover identified as natural and fragile area, heron rookery near the East Montpelier town line, forest preserve and aquifer protection areas (cf. well head protection area maps in Utilities and Facilities Plan).

Productive

(8% of the forested area) forest land is all large tracts which in themselves, or when combined, form a major economic unit for long-term timber production.

Transition

(52% of the forested area) forest lands are those resulting from fragmentation of larger tracts. They are intensively used for recreation, wood production, and wildlife habitat. Their value as watershed protection is also recognized. Larger than 25-acre parcels, this forest land category is appropriate for development, particularly rural, residential development, due to its proximity and accessibility to population areas.

Urban

(18% of the forested area) forest land refers to small parcels in or adjacent to the urbanized areas. The land is generally owned by private non-industrial landowners, and is generally used most intensively for recreational purposes. These parcels are less than 25-acres in size and generally not economically viable for long-term timber production.

Development pressure seems to be greatest on previously open or agricultural sites. However, where soils are suitable or where access to public water and sewer are available, the transition and urban forest areas are also under great development pressure.

"Prime" forest land as such has not been identified. However there is a FLESA (Forest Land Evaluation and Site Assessment) process available which could assist the Town in identifying, quantifying, and evaluating its prime recreation, scenic, wildlife, and timber-producing forest land.

Scenic vistas, recreational opportunities, timber production, wildlife habitat, and water protection are important assets that forest lands provide.

- The Town encourages careful and long-term management for the multiple uses of our forest resources.

In Barre Town, forest land may be described today as "maple-beech-spruce climax forest" in second stage generation of 30 to 50 years' growth. While there appears to be no distinct "mature growth forests", some mature, grown trees exist in the second stage woods. Barre Town is generally guided by State GAFF, - "generally accepted forest practices" - for protection and perpetuation of existing forest land.

Beginning in 2012, The Trust for Public Land (TPL) assisted the Town of Barre in obtaining 5 forested properties totaling 355-acres, to be combined with 25.7-acres owned by the Town, to become a new municipal forest in Graniteville and Websterville, Vermont.

A conservation easement over 355-acres was conveyed in 2013 to the Town of Barre by the Vermont Land Trust, the Trust for Public Land, and the Vermont Housing and Conservation Board to protect the Property from development and ensure it is open for public use "in perpetuity". The 25.7-acres previously owned by the Town are part of the Town Forest, and included in this Community Forest Plan, but are not restricted by the easement.

The Town of Barre will manage the Property as a municipal forest for wildlife habitat, timber harvesting and management, public recreation, education, and water quality protection. A conserved Town Forest also ensures public access, safeguards drinking water resources, supports the local timber, recreation, and tourism economies; provides occasional timber revenue to the Town and restores and protects connectivity by assembling parcels that have fragmented ownership. The property's extensive network of trails is a regional destination for mountain biking and other pedestrian recreation, providing unique economic and recreation benefits to the people of Barre Town and surrounding communities.

Conservation and proper management of the Barre Town Forest will also help to ensure the water quality and the safety of two drinking water supplies, specifically:

- 179-acres (69%) of the Source Water Protection Area for the Websterville Fire District #3 that supplies drinking water to 420 people.
- 27-acres (39%) of the Source Water Protection Area for Barre Town Water System that supplies drinking water for 1,210 people.

Wildlife Habitat

Barre Town, like most of Vermont, is home to diverse species of wild animals and with roughly half of the Town forested, habitat is plentiful. Any day while walking or driving around Town, you may have the good fortune of running across white-tailed deer, turkeys, bear, and maybe even a moose or two.

While Barre Town does not have any organized effort to protect wildlife habitat, the State of Vermont does to a large degree by classifying over 1,700 acre of land inside Barre Town as deer wintering land and over 4,000 acres as bear habitat. The deer wintering land has significant development restrictions placed on it and is managed by the Vermont Fish and Wildlife Department. According to the Fish and Wildlife Department, valuable yarding areas are lost each year to road construction, housing, and other forms of development. Additional threats are over-cutting of timber and pest outbreaks, such as spruce budworm. Each lost wintering area results in great pressure on the remaining areas of winter range.

- While not always easy, it is beneficial for communities to find a balance between wildlife habitat and development.
- Barre Town supports wildlife habitat preservation but does not see the need for further restriction beyond what the state already has created.

5.13 AGRICULTURAL LANDS

Agriculture and Farmlands

Barre Town's history has been closely linked to agriculture since it was originally settled. The initial clearing of the land and the construction of roads were accomplished by farmers in the eighteenth century. The rolling hills provided springs for agricultural water supplies, and the streams provided limited power for the processing of agricultural goods.

Barre Town has approximately three active dairy farms and a variety of other farms with crops such as hay, apples, vegetables, beef cattle, Christmas trees, maple syrup and maple products, herbs and perennial flowers. There are several equine operations and boarding stables as well. There are vacant fields, meadows, and pastures which are no longer part of active farms, but which remain as open spaces. In Barre Town, there are 85 landowners, owning approximately 6,085-acres, who are enrolled in the State's Current Use Program. The Current Use Program seeks to preserve forest and agricultural lands through the use of tax reduction incentives.

The remaining farms produce a locally created product, and they provide employment as well. Local farms usually preserve scenic open spaces, recreation during off-season, and wholesome uses of natural resources. Farms sometimes create buffers between differing land uses such as industrial and residential. They also create minimal demands on public services.

- It is the policy of the Town of Barre to encourage the preservation and continuation of economically viable agricultural uses including all of the farms which are currently active.
- Additionally, the Town encourages the creation of new agricultural uses which are economically viable.
- Farm preservation should be accomplished through positive inducements for farmers, rather than restrictions on growth. It is the intent of the Town that the owners of farms enjoy the economic benefits of their investment and ownership.

5.14 GROUNDWATER RESOURCES AND GEOLOGY

Many residents and businesses in Barre Town obtain their water from groundwater sources. Groundwater comes from both fractured bedrock and from unconsolidated sediment in stream valleys. Any saturated sand and gravel deposits might provide a source of ground water for larger groupings of houses. With expanding commercial

development, larger projects may be sited. The nature of the subsurface materials, including depth to bedrock, is of importance when alignment choices are made and effects assessed. Water well and boring data provide a potentially valuable source of data in areas lacking exposures. Depth to bedrock measurements, are reliable aids in determining the thickness of surface materials and can be used to reconstruct the hidden bedrock topography. Water well and other data are being compiled in spreadsheets and will be available from the Vermont Geological Survey office.

"Geology for Environmental Planning in the Barre-Montpelier Region, Vermont" by David Stewart, 1971, contains an extensive set of maps delineating surface materials, ground water potential, solid waste conditions and sand and gravel reserves for Barre Town. In the ground-water potential map, most of Barre Town occupies areas of very low ground-water potential in which most water is available from bedrock sources at depths to 300 feet. Areas of good to moderate potential, where water is available in gravel and sand, follow the valleys of the Stevens Branch and Jail Branch. These areas, containing permeable sand and gravel, are not generally suitable for solid waste and sewage disposal because of the increased potential for leachate to seep through and contaminate ground water. Areas identified by Stewart for solid waste disposal include upland areas covered by thin (less than 25 ft.) impermeable silts and clays.

The surface materials in the region are dominantly of glacial origin and were deposited while the area was covered by an ice sheet and during and shortly after the retreat of that ice. Most of Barre Town is mapped as having a thin layer of till over bedrock and/or exposed bedrock. Thicker surface materials occupy the valleys of the Stevens Branch and the Jail Branch, and the area just west of VT RT 14. The materials, varying from low permeability silts and clay to high permeability sand and gravel, provide constraints on development, land use, and resource availability.

Barre Town is on the Barre West and East Barre 7.5 minute quadrangles in north-central Vermont. The bedrock geology of the area consists of low to moderate grade metasedimentary rocks. The metasedimentary rocks are phyllite's, schist's, limestone's and, of course, granite. Granite is an igneous rock formed approximately 340-360 million years ago. It is Barre Town's most significant natural resource and its commercial extraction has provided the Town with employment opportunities since the early 1800's.

Gravel resources are predominantly restricted to the area along VT RT 14, although not all as is evident along Farwell Street and US RT 302. Sand and gravel deposits, as shown on Stewart's map are limited in extent and nearly half the original reserves are depleted. Stewart estimates, however, that an adequate reserve for the near future remains.

The Vermont Geological Survey has mapped the three-dimensional distribution of surface materials in Central Vermont's largest cities (Montpelier and Barre) and the surrounding rural areas that are experiencing growth. This map will serve as a basis for land use planning that includes identifying and delineating surface aquifers, sand and gravel deposits, areas prone to slope failure, areas suitable for septic systems, and areas underlain by significant thicknesses of low-velocity clay-rich sediments where seismic risks are amplified. New data for the west portion of Barre Town is available. Interested citizens can find this information from the VCGI (Vermont Center of Geographical Information) website through the State of Vermont site located at www.vcgi.org.

Ground Water Protection Plan

A useful resource for ground water protection planning is the report *"GROUND WATER RESOURCES AND PROTECTION FOR THE TOWN OF BARRE, VERMONT"*, ("Smith Report") July 1988, prepared by Michael B. Smith, Hydrogeologist for the Vermont Agency of Natural Resources which is still timely and relevant.

- Recognizing the importance of protecting present and potential future ground water resources to provide for water consumption by Town citizens, it is recommended that the Town adopt a ground water protection policy. This policy should be implemented by a Ground Water Protection Strategy which includes the following:

Public Education:

- Town should take active role in making its citizens aware of the need and benefits of protecting groundwater resources.

Ground Water Resources Inventory

- Should be taken to determine all available ground water resources. This data should then be looked at alongside other (e.g. ground & surface) water resources currently in use and being developed. This total resource picture should then be measured against the Town growth projections and land use plan in order to determine the need. The Town Ground Water Protection strategy then should be developed in response to that need.

Land Use Inventory

- An inventory of current land uses is essential to determine whether ground water resources are subject to existing dangers and whether available and accessible for community use. (cf. Smith Report, Appendix 4, Model ordinance, p.4, list of business activities which represent a potential danger to ground water drinking water supplies.)

Amend Town Code

- Amendments to the Town code should include Hazardous Materials Ordinance (cf. Smith Report, Appendix 4, Model ordinances, pp. 6-13.)

Draft Amendments to Town Zoning Bylaw and Subdivision Regulations

- As needed, calling for an Aquifer Protection Area Overlay District to insure all zoning and subdivision applications are checked for potential impact on ground water resources. (See Appendix 4 of Smith Report.)

Consider other Zoning Amendments

- Designed to protect identified well-head protection areas which serve as an existing or potential municipal water supply. Boundaries of any districts created should be based on geological data (contact point of sand and gravel deposit with surrounding till or bedrock materials). Within that area, land uses should be restricted within the cone of depression of an existing well, while the rest of the recharge area (to the boundaries) should be protected from incompatible land uses or mismanagement. Consultation with an expert is essential to lay out this two-district zoning.

Ground Water quality should be checked first

- If an aquifer is already contaminated by industrial, commercial or densely developed residential uses, zoning will serve no purpose. Likewise, if ground water resource is not of sufficient quantity to meet present or future needs, over protection may not be warranted.

Zoning

- Is best suited for regulating prospective land uses, since present uses are "grandfathered" in. Please see Smith Report, Appendix 4, Model Ordinances, pp. 14 - 19 for model Water Resource Protection District language for Zoning Bylaw. This model should be studied for its suitability for Barre Town; then, if suitable, adapted as needed and proposed for adoption.

Subdivision Amendments and Other Proposals

The Smith Report contains model subdivision amendments and other regulations besides those cited herein. These are available for perusal and possible proposal by interested citizens.

- Town's involvement in ground water protection and accessing should, of course, be coordinated with fire districts in which said areas may lie, or with other public water systems.

Surface Waters

Barre Town is entirely located within the Winooski River watershed. All the water of the Winooski River watershed flows north into Lake Champlain. Barre Town has a wide variety of waterways and manmade ponds. Two rivers flow through Barre Town, the Stevens Branch, flowing along VT RT 14 from the Williamstown Town line north to the Barre City line, and the Jail Branch which flows north along US RT 302 from the Orange Town line to the Barre City line.

The Stevens Branch is listed by the Vermont Agency of Natural Resources, Department of Environmental Conservation, Water Quality Division as one of seven important tributaries of the Winooski River. The Winooski River originates in the Town of Cabot and flows northwesterly approximately 90 miles to Lake Champlain with a total drainage area of 1,080 square miles which is 11.9 percent of Vermont. The Stevens Branch is 14.7 miles long of which approximately 2.6 miles are in Barre Town with a total watershed of 129 square miles.

The Jail Branch is a tributary to the Stevens Branch and originates in the Town of Washington. Collecting water from a 49 square miles area, the Jail Branch travels 14 miles, 4 of it in Barre Town, to its confluence with the Stevens Branch just south of Barre City's downtown.

Both the Stevens and Jail Branch Rivers offer Town residents a variety of recreational opportunities. The opportunities include but may not necessarily be limited to swimming and fishing. According to the State of Vermont Water Quality Division, there are no recognized swimming holes on either the Stevens or Jail Branch Rivers in Barre Town. However, while the Jail Branch does not offer many opportunities due to terrain and speed of the river, the Stevens Branch does and is used for swimming in the South Barre area. Fishing is popular on both rivers with wild brook trout the prominent species of fish although you may find brown and rainbow trout as well.

Testing of the water in both rivers is done periodically by the Department of Environmental Conservation as well as local high school science classes. Water quality is reported to generally be good. The Stevens branch has had negative impacts on it over the years but remedial efforts have proven successful in protecting the water quality. Some of the hazardous sites that have impacted the Stevens Branch in Barre Town or upstream over the years include the former Unifirst dry cleaning plant in Williamstown, The Williamstown land fill where sludge was dumped that had contaminants from the Unifirst site, South Barre MiniMart/Barre Home Supply, and Quarry Hill Quick Stop. All of these sites have had remedial programs to mitigate contaminates.

The Jail Branch River has not been subject to the same types of hazardous contaminates that the Stevens Branch has. The Jail Branch is impacted by the East Barre Dam which was constructed between 1933 and 1935 in response to the flood of 1927 when water from both the Jail and Stevens Branch Rivers decimated much of Barre City. Construction was done almost entirely with hand labor by the Civilian Conservation Corps. Flooding upstream of the dam is common which is by design. Most of the flooding occurs in the Town of Orange.

There are other smaller tributaries to both the Stevens and Jail Branch Rivers that since the installation of the East Barre Dam have proven to be more troublesome than the rivers themselves when it comes to flooding. These brooks include both Gunner Brook and Honey Brook.

Aside from the undeveloped Pecks Pond, Barre Town does not have any formal bodies of water such as lakes or ponds, the woods in the Millstone Hill Area (Graniteville & Websterville) are riddled with small and medium sized abandoned granite quarries. Now filled with ground water, these quarries provide their own uniqueness and opportunities. Many of these old abandoned quarry holes are contained within the Barre Town Forest and will be preserved for future generation to enjoy and learn about Barre Town's heritage.

The health of a river is vital to a community's well-being whether it be for recreation or aesthetics. Barre Town should take measure whenever possible to protect rivers and streams. Some of these methods to protect surface water

may include:

Surface water protection goals:

- Although the State of Vermont now regulates on-site septic systems, Barre Town should remain active in the siting of these systems. Identification of failed systems and helping homeowners find remedial solutions when feasible should also be done.
- Proper stormwater management and erosion control should be considered for all development. Non-point pollution surface run-off from impervious surfaces and erosion can threaten water quality and the health of streams. Runoff can harm water quality through the addition of petro-chemicals, heavy metals and other toxins from parking areas and other facilities and can cause excessive sedimentation that endangers fish habitat.
- A minimum of a 50 foot buffer from significant streams banks should be maintained to help protect them. Buffer management plans should also be required for development close to or within a 50 foot buffer zone. Maintaining a vegetated buffer along all streams is important to the overall health and well-being of the river because it provides shade, stabilizes stream banks, and provides habitat for a variety of wildlife.

Special Surface Water Concerns

Flood Hazard Areas and Floodways

A special flood hazard area is defined in terms of likelihood of damage impact's in a one-hundred (100) year period. A floodway is the pathway and watercourse that must be reserved to carry flood water away during the 100 year incident. These areas in Barre Town have been mapped by the Federal Emergency Management Agency (FEMA) and used as part of the National Flood Insurance Program showing flood hazard areas on Flood Insurance Rate Maps (FIRM's), which indicate flood hazard locations. Properties located near the primary rivers (Stevens Branch and Jail Branch) are subject to floodway regulations. Flood hazard regulations are incorporated in the Town's Zoning Bylaw enforced by the Zoning Administrator. These FEMA maps are available in the Barre Town Planning and Zoning Office.

Soil composition, slope and contours, also create pockets of minor (though problematic) flood impact due to spring thaws and intense rainfall. Sections of Lower Graniteville; Websterville Road, East Barre, and Quarry Hill, for example, can be vulnerable to "spot" flooding, basement impact, storm sewer over-capacity and road erosion.

The greatest impact to Barre Town with regard to flooding typically comes from flash flooding. Barre Town's hills and valleys allow for water to be collected at higher elevations in numerous tributaries, brooks and streams, to both the Jail Branch and the Stevens Branch Rivers. Elevation change between the heads of these brooks or streams and the rivers can create tremendous fluvial erosion. Fluvial erosion is the removal of soil and rock from the bank of a water channel and is a concern throughout Vermont including Barre Town.

Wetlands

Wetlands may be defined as areas which are inclined to retain sufficient ground and surface water to support significant types of vegetation and aquatic life, which depend on consistently saturate soil conditions. Wetlands provide wildlife habitat and are important as indicators of possible groundwater contaminates.

Wetlands, regulated by both the State and Federal government, are identified on the Vermont Significant Wetland Inventory Map. There are many available sources to review the wetland maps including the Planning and Zoning Office and on the State of Vermont Water Quality website

(www.vtwaterquality.org). Barre Town has no category #1 wetlands. Category # 3 wetlands are considered to be less significant than category # 2 wetlands, however, both represent significant environmental assets. Barre Town has several significant wetland areas, some of which have been protected by private landowners. In recent years, wetlands, regardless of their category, mapping, or size, have been considered significant. This is important because all uses where impact to a wetland is possible should use care before disturbing the wet area.

- Developers and homeowners should consult with a wetland consultant.
- Barre Town's Zoning Bylaw regulates wetland development but may need to be amended to include additional language regarding the importance of even non mapped wetlands.

Storm Water Management

Much of Barre Town is comprised of hilly areas that are like the rim of a bowl, the center of which is Barre City. Storm water runoff traveling down the hills impacts on the City. It also impacts areas of Barre Town by its adverse impact on homes, leach fields and driveways as well as roadways. Uncontrolled runoff can create a variety of problems. These problems are often made worse when new development reduces the amount of vegetation which controls the absorption of the ground water. Examples of the problems are: silt deposits; erosion and/or undermining of private property, roadways, railroad beds and bridges; accumulations of water that will flood or freeze which produce hazards on driveways or roads; and flooding and contamination damage to basements, yards or streams.

Presently the Town Public Works Department controls storm water runoff by a system of ditches, culverts, and catch basins. Most of the runoff not absorbed into the ground eventually flows into natural waterways. The primary purpose of the existing storm water control system in the Town is for highway maintenance.

Reports of maintenance needs for the storm water control system are handled by the Town Highway Department as part of the routine maintenance of town roads.

The Town should insure that all plans for future construction within the Town are reviewed for storm water runoff impact on adjacent property owners and municipalities to insure the health and safety of the public. Wherever appropriate, the Town will require the developer to provide a right of way, an easement or retain necessary private property for the maintenance of the storm water control system.

There are fluvial erosion concerns throughout Barre Town. Of specific concern are areas on both side of East Barre Road (US RT 302) from the Barre City line to East Barre. This area has experienced significant fluvial erosion creating ravines in several locations. Repairing these ravines may be difficult and expensive; however, controlling runoff may be a manageable way to help slow erosion. Development, where stormwater runoff is collected and travels through these ravines should be reviewed for stormwater management, controlling the rate of runoff.

There are also problems with the infiltration of storm water into the domestic sewer lines which need to be resolved as well.

The State of Vermont has a storm water and construction permit process; the process refers to one to five acre developments. The developers must obtain a state permit referred to as a 3-9020. This permit deals with low risk sites and erosion issues on the sites; prevention and sedimentation control. All developments one to five acres must submit a preliminary notice of intent per new state law.

Recommendations regarding Water Runoff and Drainage

- The Development Review Board should review plans regarding storm water management for new subdivision proposals to ensure that new development will not adversely affect the community.

- Allowable volumes of storm water run-off need to be calculated using State standards for 10, 25, and 50 year storms. Calculations in subdivision applications, detention areas, throttling devices for all storm water run-offs need to be provided to the Development Review Board at the time of new development.
- Town should consider a no disturbance buffer/setback area around steep slopes of 20% or greater.
- Buffer areas for streams and wetlands.
- Consider a fluvial erosion plan.

Air Quality

The quality of the air we breathe can be as important to the vitality of a community as much as anything else. Communities tend to thrive better when the air is clean and health issues are not a concern and visibility is generally good. Most of Vermont air quality concerns are generated from out of state.

Similar to most parts of Vermont, Barre Town is considered to be in attainment/unclassified status with regard to air quality as determined by the State of Vermont, Air Quality Division through their Air Quality Implementation plan. This means that Barre Town is assumed to have attained the standard but that there really isn't a classification. Barre Town's air quality, again like most if not all of Vermont is considered to be excellent.

While Barre Town's air quality is excellent, it can be affected by many different things including industrial uses, traffic, heating systems, and some agricultural uses. In Barre Town, most industrial uses are under ACT 250's jurisdiction and as such must meet State of Vermont air quality standards in order to get a permit.

- That may not be the case for all uses and as such, if not already under some form of air quality review, uses being considered during the permit process should be carefully reviewed for air quality concerns and if necessary be required to show how standard air quality standards are being met.

5.15 NATURAL RESOURCES GOALS AND OBJECTIVES

- Enlist the communities' support in protecting and enhancing the natural resources and amenities in Barre Town and affected surrounding municipalities.
- To build the information base relating to description its natural resources and to be included on the Town's website.
- To assure long-term, sound stewardship of natural resources through reliable planning and management practices.
- To ensure that development is in harmony with the natural features of each site and limited where development is imprudent and/or questionable due to excessive negative impacts.
- The Town will encourage and enlist the assistance of residents, landowners, schools, businesses and other entities to study inventory, manage, preserve, protect and enhance natural assets.
- The Town should enlist existing organizations and board such as; the Recreation, and Housing Committees; Development Review Board the Planning Commission, and the Traffic Safety Committee to propose and implement policies to protect natural resources and enhance natural features throughout Barre Town.
- Mapping and natural resources information should be readily available to applicants as part of any review process. Expectations, as well as opportunities, for appropriate management practices and development

choices should be offered to applicants. This information should also be accessible to the public.

- The Town should encourage the appropriate siting and reclamation of any future mining and/or extraction operations to avoid land use conflicts, and minimize environmental damage and habitat destruction.

Suggested Actions & Initiatives

- The Town should take a proactive approach to prioritizing protection of natural resources in the interests of expanded development amenities, respect of property rights, and incentives of developers and landowners. These may be reflected in ordinances, pursuit of planning and implementation project funds, community demonstration programs, and /or open space/recreation/tax/site design incentives, for example.
- The Town should encourage protection of mature landscape and geological features (i.e., native rock and ledge) seasonal and indigenous waterways, privacy screens, recreation space, etc. to serve the goals of the Town Plan while increasing marketability of developments and confidence in applicant planning capacity. Applicants should be advised to incorporate mitigation measures to protect natural resources, rather than to delay proposals strengthening planning considerations.
- The Town should encourage Barre Town businesses, through the Zoning Bylaws and Subdivision Regulations to landscape with native vegetation and materials.

6. EDUCATION FACILITIES

6.1 INTRODUCTION

Every community strives to provide sound educational systems which address the needs of every sector of the population. Planning decisions have significant impacts upon educational services as housing growth, location and type of housing fosters changing demands.

Barre Town has a modern, well-maintained K-8 facility that meets Vermont's Public School Approval (PSA) standards. Barre Town and Barre City share a common high school, Spaulding High School. Barre City, Barre Town, and Spaulding share a PK-12 superintendent and central office. The three entities make up the Barre Supervisory Union (61). Several private schools help round out the choices parents have in the education of their children.

6.2 SCHOOLS

Spaulding High School

Spaulding High School and the attached Regional Vocational Center provide secondary educational programs for Barre Town and Barre City plus a number of tuition students from surrounding towns. In the last 10 years, improvements to the school include a full size library, with computers for research, new and larger physical education facilities, enlarged musical facilities and rewiring the building for interactive TV, potential and internet access in all classrooms. In addition, a woodchip heating plant was added, and in 2013 a new roof was added. The school is fully accredited and meets the Public School Approval requirements.

HIGH SCHOOL ENROLLMENT / COST PER PUPIL

	Barre Town Student's	Cost per Pupil
2003-04	487	\$ 8,610
2004-05	466	\$ 8,886
2005-06	453	\$ 8,903
2006-07	472	\$ 8,505
2007-08	428	\$10,700
2008-09	429	\$10,733
2009-10	414	\$ 9,753
2010-11	403	\$10,153
2011-12	390	\$11,108
2012-13	368	\$11,580

Total Change -119

Avg. 10 year cost per pupil \$ \$9,893

Statistics for CPPs are reported in the annual Barre Town Report of the Town Officers in a configuration that includes changing variables. Please see reports for clarification of expenses and classes/ grades included in these figures. High School means grades 9-12 in these charts.

Barre Town Middle and Elementary School

The Barre Town enrollment for the 2012-2013 school year was 867 which includes pre-kindergarten students which is down by 119 over 2003-2004, but an increase of 38 students compared to the year prior. The 2012-2013 enrollment snaps over a decade long yearly drop in the student body at the Barre Town School.

The charts below describe enrollment over the last decade. Projections for enrollment growth, as described in the

1992 version of the Town Plan, have not proven accurate. Enrollment, until the last reported year had gone down steadily. In 2006 Barre Town School went to a full-day kindergarten as opposed to half-day which had been the previous practice.

PRE-SCHOOL TO GRADE 8 ENROLLMENTS / COST PER PUPIL

	Student Body	Cost per Pupil
2003-04	1,032	\$ 7,980
2004-05	988	\$ 8,281
2005-06	973	\$ 8,902
2006-07	947	\$ 9,144
2007-08	922	\$ 9,087
2008-09	913	\$ 8,888
2009-10	882	\$ 9,179
2010-11	867	\$ 9,920
2011-12	829	\$10,375
2012-13	867	\$10,611

Total Change -165

Avg. 10 year cost per pupil \$ 9,236

Websterville Baptist Christian School

The Barre Town area, in addition to public school options, offers parents a private, Christian K-12 in Websterville. Websterville Baptist Christian School was established in 1977 and has a current enrollment of 170 students. The school is a recognized Independent School by the Vermont Department of Education and enjoys accreditation by Christian Schools of Vermont. Student to teacher ratio is 15-1 and has a full complement of basic and traditional courses along with bible teaching and character training. Approximately 90% of the graduating seniors go on to college which characterizes the opportunities available through this private school alternative.

Central Vermont Catholic School

Central Vermont Catholic School is a fully accredited Catholic school founded in 1927. It includes preschool through grade 8. Enrollment is approximately 120 with about 30 students coming from Barre Town. The basic curriculum includes math, reading, science, language arts, English, social studies, and religion. The school also offers French and Spanish, computers, music, physical education and health. Central Vermont Catholic School is located in Barre City providing all students with a well-rounded curriculum which includes an understanding of Roman Catholic values.

Area colleges, Universities and Continuing Education

The Town of Barre is fortunate to be located within reasonable commuting distance to colleges and universities in Central Vermont. These include Vermont College, Norwich University, Goddard College, Community College of Vermont (CCV), Vermont Technical College (VTC) and Woodbury College. New England Culinary Institute (NECI) provides a unique two year educational program in cooking and hospitality related careers in nearby Montpelier. In addition, Champlain, St. Michael's, UVM and CCV in Chittenden County are within 45 minutes to an hour commute distance from Barre Town. Numerous opportunities for adult education and extension courses are also available locally.

6.3 CONCLUSION

Educational opportunities and school quality are, perhaps the two most significant basic services to make available to residents of a community. Real estate professionals attest to the importance most buyers attach to the reputation of local educational facilities. Whether potential property owners have school-age children or not, they acknowledge the importance of good schools in the stability of the community; the viability of taxes paid; and, salability of real property.

Town planning processes and subdivision review offer early indications of increased or decreased demand upon educational facilities. As an example, applications for an unusual number and percentage of "affordable", three bedroom housing units would be an indication that the market is moving toward young families with school age children in the near future. In another example, large subdivision applications for smaller, higher density condos - suitable to singles and couples - would suggest diminished future demand upon local school districts. Master Planning, where developers of sizable parcels of land may "phase construction", but illustrate full development in drawings and plans in the earliest submission of subdivision application, assist schools and government in planning for the future.

7. THE REGION AND OUR NEIGHBORS

7.1 REGIONAL CONTEXT

As the second largest town in Central Vermont, many of Barre Town features play a large role in the region as a whole. Below is a list of some of those features important to not only Barre Town but the Central Vermont Region.

Aesthetics and Family Life

Open spaces, beautiful green (and white!) views, a variety of housing developments, recreational opportunities, and K-12 local education facilities (including private options), as well as proximity to employment have long made Barre Town a residential community of choice in the region. Many residents find Barre Town such a desirable place to live that they commute as much as an hour to work, a "blink of an eye" in a Metropolitan area, but time well spent in Vermont to live here.

Rural Village/Open Space

The Town is unique in that it contains at least four distinct village centers; East Barre, South Barre, Graniteville, and Websterville as well as numerous other smaller population clusters, all easily traversable in the course of "being a neighbor". The remaining lands outside the village centers are primarily open and lightly populated.

Unique Geography

Geographically, the Town envelops (almost completely surrounds) the City of Barre to the north, east and south. Barre Town also abuts 6 other communities, Berlin, Plainfield, Washington, Orange, Williamstown, and East Montpelier. Barre Town primarily holds the "high ground" where the bulk of the granite deposits and quarries are located. The Barre Town's highest point of elevation is The Pinnacle (elevation 1825'), while dropping to an elevation of 700' at the valley floor. The valley portion of the Town is bisected by 2 rivers; the Stevens Branch and the Jail Branch both of which are part of the Winooski River basin.

Farming

Barre Town sustains three active dairy farms, as well farms involved with horses, silviculture, maple sugar bushes, and vegetables. Notable among the dairy business is Booth Brothers Dairy (now owned by H.P. Hood), which provides a close by milk market for many regional dairy farms and is a direct source of local milk to the central Vermont area. A nod toward history would recall such notable farms as the "Routhier" farm on East Hill (with outstanding views), the Trow Farm (for which the Trow Hill area is now named). Also, the "Paquet" farm in South Barre (which produced a "Paquet" student every year for 49 years to the then - South Barre neighborhood school). Over time, other Barre Town farms disappeared, some of which have become housing developments.

Numerous granite quarries

Rock of Ages Corp. is now the only granite quarrying company in Barre Town, currently quarrying stone from the E.L. Smith quarry. The area is dotted with numerous inactive quarries – both large and small. The Town and City are recognized by many as the "Granite Capital of the World" which serves to attract tourists as well as provide employment. The area numerous large and small manufacturing plants which produce world-renowned granite building and commemorative products. The history of Barre's unique granite products and its talented craftsmen is commemorated in the Vermont Granite Museum and Stone Arts School of Barre, an ongoing effort by the community to recognize the significant role of granite to the region. The museum is located at 7 Jones Brothers way in Barre City.

Grant funded projects significant to the region

Recent grant awards to the Town for funding of projects in Barre Town include:

- A grant in the amount of \$95,000.00 awarded to the **Barre Housing Authority** by Community Develop Block Grant to adapt several of its housing units with roll-in showers and to add a lift at the Green Acres Community Center on Allen St. in Barre City. The Barre Housing Authority manages public housing (low income, elderly, people with disabilities) for both Barre Town and Barre City and currently has 5 residential properties in Barre City and 2 in Barre Town (Graniteville and East Barre).
- A grant to S.B. Electronics (made in 2010) in the amount of \$1,000,000 which, along with a Department of Energy grant of \$8,500,000 and other funds, allowed for the purchase of 10 acres of land in the Wilson Industrial Park and the construction of a state-of-the-art manufacturing facility. S.B. Electronics produces, in high volume, power rings used for electric vehicles.

Industrial Park

In the spring of 1997, Wilson Industrial Park celebrated a ribbon cutting ceremony for a 94-acre expansion and infrastructure installation. In 2008, another significant infrastructure investment was finished including utilities and a road extension (Parker Road). The expansion was entirely funded with money obtained from the sale of lots in the park. The park has 58 acres of land still earmarked for development and over 40 acres of land that won't be developed. This does not include 87 acres of adjacent land that is protected as open in exchange for the land that will be developed in the park. The preserved land, as well as a park for community gardens, a recycling center and, a bike and pedestrian pathway, the Town has made a commitment to economic development while maintaining aesthetics and good neighborhoods. The Wilson Industrial Park enjoys a wide range of businesses that include granite manufacturing, food distribution, and high tech manufacturing. These businesses provide valuable jobs that serve the region.

Housing Rehabilitation

For several years now the **Central Vermont Community Land Trust (CVCLT)** has been managing the Barre Town Housing Rehabilitation fund with good success. Over \$80,000 has been lent to town residents with CVCLT's oversight. Many of the original Barre Town Housing Rehabilitation loans remain in a deferred status (houses transferred/sold) but will someday will be paid off and reentered into the program.

Emergency Medical Services

Barre Town EMS provides paramedic-level ambulance services to the communities of Barre Town, Orange, Washington, Topsham, and Berlin.

Barre Town is among the most populous municipalities in Central Vermont

Taken together with Barre City, Berlin and Montpelier it is part of the major commercial & industrial population center of Central Vermont with a combined population of 27,718 people. The Town experiences a steady, if not modest growth in population as well as in commercial and industrial development. Now the second largest community in Central Vermont, the Central Vt. Regional Planning Commission predicts Barre Town to become the largest community by 2020.

Proximity to Major Highways

Barre Town is the beneficiary of a direct connection to I-89 by way of Exit 6, VT RT 63 accessible in South Barre at VT RT 14. Also convenient is access via Exit 7, using VT RT 62 in Barre City which connects at North Main Street. Additionally, the crisscrossing of VT RT 14, US RT 302, US RT 2 and VT RT 110 allow for convenience of travel throughout the area in "every" direction.

Air & Rail

The Edward F. Knapp Airport in Berlin, a state owned airport, services small passenger planes and numerous business-related services such as UPS, Fed-Ex, etc. as well as private planes including small jets. The Washington County Railroad provides rail service through, Montpelier, Berlin and the City of Barre to the Wilson Industrial Park in Websterville on tracks owned by the State of Vermont and used by the railroad under an operating agreement. This rail line, while not frequently used, is still active and is available as the need arises.

Proximity to the Capital City and Central Vt. Medical Center (CVMC)

Seven miles north lies Montpelier, the Capital of Vermont, which provides many employment opportunities to the region. State government offices, insurance companies – including the National Life Group headquarters - and numerous other businesses and professional offices are major employers. Between Barre and Montpelier is Berlin, home to the Central Vt. Medical Center and a State Hospital facility being relocated from Waterbury as the result of Tropical Storm Irene in October, 2011. CVMC is one of the largest employers in the region.

Higher Education

The area offers several educational institutions such as the New England Culinary Institute, Vermont College Community College of Vermont, Norwich University and Vermont Technical College, all within 30 minutes of Barre. Within an hour's drive is the University of Vermont, Champlain College, St. Michael's College, Vermont Law School and a handful of other quality institutions.

Regional Planning

The Town of Barre, along with 23 other municipalities in Washington and adjacent Orange County, is a member of the Central Vermont Regional Planning Commission (CVRPC). CVRPC is a planning agency charged with numerous tasks among them developing a comprehensive regional plan, making recommendations concerning development, and commenting on regional impacts of Act 250 applicants. The CVRPC also assists communities with local planning issues; review and confirmation responsibilities relative to planning process and goals under 24 VSA § 4302; and provides Geographic Information Services (GIS) assistance including housing the GIS equipment, data and staff for the benefit of member municipalities.

Barre Town is closely involved with the regional Transportation Advisory.

7.2 ADJACENT MUNICIPALITIES

Successful planning in Barre Town requires coordination with the plans of neighboring communities. Seven different municipalities adjoin Barre Town: East Montpelier, Plainfield, Orange, Washington, Williamstown, Berlin and Barre City.

Except for the City of Barre, all of the adjoining communities are rural in nature where they adjoin Barre Town. And as such their land uses are generally compatible with Barre Town's. In terms of zoning, it should be noted that the towns of Orange and Williamstown do not have zoning laws.

East Montpelier

VT RT 14 North and VT RT 2 are the major roads connecting Barre Town with East Montpelier and its small village commercial center along US RT 2. Both major highways are accessed by numerous town high ways within Barre Town. Lands in East Montpelier adjacent to Barre Town are zoned rural residential and industrial, while Barre Town's land is zoned low density residential. Depending on the type and density of industrial uses proposed for East Montpelier there could be some conflicts on land use.

Plainfield

Plainfield is accessed from Barre Town by numerous town roads along Barre Town's north eastern boundary. Several of these roads provide a relatively direct commuter route from Plainfield to Barre City and on to I-89. Likewise they provide a commuter route from Barre City and Barre Town to US RT 2 East. The shared border is zoned low density residential on the Barre Town side of the line and Forest and Agricultural Land District on the Plainfield side. The lands in both are primarily forest and agriculture, and there is little in the way of land use conflicts.

Orange

Orange is accessed from Barre Town by way of US RT 302 and VT RT 110, as well as several secondary roads. The Town of Orange shares Barre Town's south eastern border. The lands in both communities are heavily forested with some agriculture and low density residential. The Thurman W. Dix Reservoir, the water source for the Barre City water system, is in Orange and is located less than a mile from Barre Town's border. This border area was once zoned conservation by Barre Town in order to control development and provide water shed protection for the reservoir however, as the development potential on this side of Town was thought to be relatively slight and since Orange has no zoning, this area was re-zoned to low density residential in 2008. The Town of Orange contracts with Barre Town for much of its fire protection and all of its ambulance service.

Washington

The Barre Town/Washington boundary is very small - only one road (Lowery Road in the East Barre area) connects the two communities. Land use along adjacent borders is primarily low density residential/agriculture. There are no perceived conflicts in land usage between the two communities.

Williamstown

Williamstown adjoins almost the entire boundary on the south side of Barre Town. Connecting roads include VT RT 14 South, West Road., Miller Road Extension, Cogswell Street, Baptist Street, and McLeod Road. Barre Town sewer serves a part of Williamstown over the border in Upper Graniteville. The Graniteville Fire District also serves water to portions of Williamstown in the Upper Graniteville area. Williamstown is largely rural in nature throughout, with a traditional village center on VT RT 14 several miles south of the Barre Town border. It also has a commercial /industrial area along VT RT 14. Barre Town land uses/zone districts along boundary include a wide variety of zones: high, low and medium residential, commercial, and industrial. And the uses are similar on both sides of the town lines.

Berlin

Major road links include VT RT 63 which serves as Exit 6 from South Barre to I-89 and Airport Road. A highway improvement project has been completed for Bridge Street and Morrison Road which also serve as links to Berlin. A new bridge on Bridge Street was completed in the fall of 2013 and a significant upgrade at the intersection of Bridge Street and VT RT 14 is planned in the coming years. These links lead to the major commercial, industrial, transportation and hospital-medical offices hub of Berlin. Principal Barre Town uses/zones near this boundary are rural residential with farms, fields and forests and spots of industrial and conservation. Zoning conflicts are minimal.

City of Barre

The Town of Barre and the City of Barre, although two separate municipalities, share many common interests and services.

Barre City and Barre Town share common major highways, US RT 302, and VT RT 14 and have a multitude of interconnecting city/town streets. Traffic from or through one community also can have a significant impact on traffic and highway intersections in the other community. Major development within Barre Town is done with this mind.

In general, zoning along the Barre Town/Barre City borders is compatible. Two areas of potential conflict are on Allen Street where Barre Town is zoned low density residential, and Barre City has a small industrial zone area and Farwell Street where Barre Town is zoned industrial (currently Lepage's gravel pit) and Barre City is zoned commercial (currently ball fields). However, given current land use patterns and the small size of the affected zones it is unlikely that conflict will ever occur.

An expanded discussion of the interaction with Barre City is contained in Section 7.3

7.3 BARRE CITY/BARRE TOWN SHARED SERVICES

Water and sewer:

Municipal Water

Water is distributed along the valley floor, and to an elevation of 1050' in the areas of Richardson Road, Trow Hill, East Cobble Hill Road, Camp Street and Cassie Street, South Barre, and US RT 302 areas of the Town. Residents in these areas are water customers of the City of Barre

Municipal Sewage

Barre City owns and operates a sewer treatment facility located on the North end along the Steven's Branch River. Barre Town has a network of piping and other infrastructure that covers much of the Town but not all of it. Sewer flows through the Town's piping network to the Barre City treatment facility for which the Town of Barre pays a fee to the city. The Town is provided a certain amount of capacity at the treatment facility. Town residents that utilize the sewer system are customers of the Town of Barre.

The Town is currently paying off a \$725,000 bond (retires in December of 2022) that upgraded the City sewer treatment plant's capacity, expanding the Town's allotment from 941,250 gallons a day to 1,555,000 gallons a day providing much needed additional sewer allocation to Barre Town. As of January 2013, the total reserve capacity is 485,188 gallons per day which equates to 16,171 units of sewer based on 300 gallons per unit.

Education

Barre Town and Barre City are co-owners of the Spaulding Union High School and Barre Technical Center located on Ayers Street in Barre City. The costs of operating the school are split based on the proportion of students sent by each community.

In 1997, The Town and City voted to expand the U-61 Supervisory Union to include both communities elementary and middle schools as well as Spaulding High School and Barre Technical Center consolidating under one superintendent and support staff.

Shared Interest

- (1) Sewage treatment facility;
- (2) Water supply/purchase;
- (3) Spaulding Union High School and Barre Technical Center;
- (4) U-61 Supervisory Union including common Superintendent;
- (5) Barre Youth Sports Association (BYSA);
- (6) Aldrich Public Library and York Branch of the library located in East Barre;
- (7) Mutual Aid Police/Fire/EMS;
- (8) Winter maintenance of some streets on the City/Town borders such as Quarry Hill, Camp Street, and Hill Street;
- (9) Barre Area Development

(10) Other organizations both communities are involved with include

Barre Housing Authority
Central Vermont Economic Development Corporation
Central Vermont Regional Planning Commission
Central Vermont Solid Waste Management District

Other Topics of mutual concern to the Town and City:

Transportation/Traffic

Plans are in the works to upgrade the Quarry Street/South Main Street (Vt Rt 14) intersection to address traffic congestion at that intersection, along with the water and sewer lines at that location.

Economic Development

Both communities recognize the need for on-going efforts to maintain a vital downtown retail district as well as to expand industrial job opportunities. See Section 10

Zoning

Zone districts and land uses along Town/City boundaries are viewed as compatible.

Spaulding High School

Town and City students continue to enjoy the new gym, increased space for music, new technology including accessibility to the Internet and new energy efficient updates from previous voter approved projects. Town and City voters overwhelmingly approved a bond vote in November of 2012 to replace the roof that includes significant structural and HVAC upgrades. Cooperative bonds between the Town and City over the years have provided significant upgrades and improvements to the high school.

Storm Water Run-off

Storm water runoff from the Town into the City has always existed. However, as development has occurred and continues to occur, good storm water planning is essential to limit negative impacts anywhere in a watershed but especially in the City. Plan should be reviewed for storm water management so that best practices are followed to limit impacts to surrounding properties and properties located in a particular watershed area.

7.4 DEMOGRAPHICS

This section of the Plan provides a statistical overview of Barre Town and the region. It makes comparisons regarding statistical elements which are pertinent to planning issues.

The analysis will focus on key aspects of community life including population, housing and the economy. It is important to view Barre Town in its regional context as these variables are considered. Below you will find a table reflecting housing and income as of the last census (2010) data available.

2010 Census Data	Barre Town	Vermont
Housing Units	3,402	322,539
Household Income	\$62,160	\$51,841

Barre Town is located in Washington County. The growth of Washington County continues to be a little below the state average with estimates showing a growth of 2.6% since the 2000 census. The state estimated average is 2.8%¹. Barre Town is estimated by the Central Vermont Regional Planning Commission to be the most populated town in Washington County by 2020. The primary difference between Washington County and other areas with slower than average growth is that the economy here remained strong during this slower growth period.

There is a high concentration of government related jobs in the region. However, diversity of the economic base results from substantial amounts of employment in the areas of recreation, insurance, granite quarrying, banking and manufacturing. There is also a large amount of employment in the trade and service sectors.

Population

Below illustrates that the Barre Town population growth has been relatively steady. The Barre Town rate of growth has approximately equaled the county average rate, but it is only half of the state average rate.

TABLE 1

Population Comparison						
	1970	1980	1990	2000	2010	% Growth since 1970
Barre Town	6,509	7,090	7,411	7,602	7,924	17.86%
Barre City	10,209	9,824	9,428	9,291	9,052	-12.78%
Washington Cty.	47,659	52,393	53,928	58,039	59,534	19.95%

Since 1970, Barre Town's percentage of the total county population has remained at approximately 13 %. It is anticipated it will remain the same.

There has been a nationwide decrease in the average size of households in the past twenty years, and Barre Town has followed this trend. This reduction in size is attributed to a number of factors including increased affluence, a conscious desire for smaller families, increasing numbers of two income households; and, an increased rate of divorce. Barre Town's household size has decreased from 3.0 persons in 1980 to 2.45 in 2010 while the county average size declined from 3.13 to 2.36 during the same period.

¹ Based on United States census data from 2000 to 2010

8. ENERGY

8.1 OVERVIEW

Energy is an important component of any town's vitality. An energy plan is important to promote numerous benefits which include municipal cost savings, increased revenues, a strong economy, greater energy independence and security, local influence over energy facility siting, more efficient communities, healthier communities, a clean environment, and regional coordination and collaboration. State incentives may be available to communities that have energy plans.

To a large degree, energy costs are not controlled by a municipality; they are dictated by outside sources. The number one demand for energy use in Vermont is in transportation. Heating is second followed by electrical use. So, while Barre Town and its residents may not be able to control the cost of energy, they can always look toward conservation as a way to cut cost and meet many of the benefits mentioned above.

- Other methods of energy conservation can also be encouraged such as the use of renewable energy sources and energy efficient buildings. Promoting these things can also lead to job creation for the local work force.

8.2 ENERGY OPPORTUNITIES

Most of the opportunities for energy savings are within the confines of the private sector in homes and commercial and industrial properties. However, there are a few opportunities for the municipality to save energy as well. They include the following:

- Encourage cluster housing and neighborhood commercial services along established transportation routes;
- Encourage the development of pedestrian and bike paths and park and ride facilities throughout town;
- Promote public transportation and ride-sharing;
- Promote the use of energy efficient street lights in the community;
- Purchase the most energy efficient or alternative powered vehicles that will, at the same time, perform the necessary functions of the particular department.

8.3 ENERGY CONSERVATION

The greatest impact on reducing dependence on fossil fuels, both domestic and foreign, is to decrease the overall demand for energy through conservation. Conservation also produces the most economic gain because it represents money not spent for energy. Basic conservation efforts involve little or no monetary investment, but most likely will involve changes in both culture behavior and life style. Additional efforts require an investment in reducing the energy requirements of buildings.

Transportation

While public transportation; buses and trains provide minimal opportunity in Barre Town for energy conservation, there are several options available to residents to reduce the use of private motor vehicles. The first is to utilize formal "park and ride" lots for carpooling. There are two established VTRANS commuter lots in Barre Town. One is located on US RT 302 in East Barre, near the intersection of VT RT 110. The second is located on VT RT 14 adjacent to VT RT 63 (across from McDonald's). Though while not located in Barre Town, a third VTRANS lot is located in Berlin on VT RT 62 and Paine Turn Pike. Use of these well maintained (lighting, snow removal) lots is free, and they are provided to promote carpooling

Another option for setting up a carpool can be found at www.connectingcommuters.org, which helps those seeking carpooling opportunities find car or vanpooling partners. For carpool matching, vanpools, and bus routes please call 800-685-7433 or visit their website.

Lighting

Street Lights

Barre Town completed a public street light survey in 2012 of all lights that the Town pays for. It was a great opportunity to survey the lights in use and to make recommendations for additions or deletions to the street light inventory. The goal was to replace existing street lights which are generally either mercury vapor, or high pressure sodium, with LED lights. The changeover will be conducted in co-operation with Green Mountain Power. Expected savings are around \$10,000 per year for the Town. In all, there were 86 existing lights removed and 24 added for a net loss of 62.

There was no charge to the Town for the conversions. Because the Town pays Green Mountain Power a fixed fee per street light (covers pole, light fixture, and maintenance), the town will not directly see the savings in either electric use reduction or the reduced cost of electricity. However, Green Mountain Power will, by virtue of having to purchase less electricity to operate the street lights.

This survey did not inventory privately owned outside lighting.

- Homeowners and businesses are encouraged to replace or upgrade current outside lights with LED's or current technology.
- There may be funds available to pay for some or all of the light conversions from Green Mountain Power or Washington Electric Co-op. or through Efficiency Vermont (www.efficiencyvermont.com).

Interior Lights

Homes and businesses have several light replacement options available.

- Incandescent light bulbs can be changed out with CFL's or LEDS. Old fat tube (T-12) fluorescent tubes and fixtures can be replaced with more efficient T-9 and T-7 (skinny) tubes and fixtures.
- Likewise halogen and metal halide lights should be replaced with more efficient lighting. Efficiency Vermont can assist with this. T-12 tubes are essentially no longer available so new construction will by default use the newer more efficient skinny tubes.
- New construction of homes and businesses is encouraged to utilize energy efficient lighting.

Building Energy Audits

Home and business owners:

- Are encouraged to have a whole building energy audit performed by a certified home energy specialist to determine both energy losses from the building and to have a plan developed to correct energy and heat loss deficiencies.
- Contact Efficiency Vermont for a list of certified contractors.

Other

- The use of power strips to fully turn TV's, computers, and other electronic devices off is encouraged. Turning off unnecessary lights and electronic devices, turning down the thermostat, reducing the hot water temperature, using water saving faucets, and shower heads are some of the other options.

- Using an outside clothes line or inside clothes bars can greatly minimize the need for an electric clothes dryer. Older electric appliances can be replaced with newer energy star rated efficient units.

8.4 TOWN BUILDINGS

Barre Town owns a number of municipal buildings which represent an opportunity for both energy savings and a reduction in operating costs.

The East Barre Fire Station has had lighting upgrades done (both interior and exterior), and the heating plant was converted from #2 heating oil to propane in the fall of 2013.

The South Barre Fire Station needs interior light upgrades but most of the exterior lights were upgraded to LED in 2013. The heating plant was converted from #2 heating oil to propane in during the summer of 2013. An energy audit is needed to determine insulation needs.

The Town Office Building has been subject to several energy upgrades in the past. Currently work is in progress for weatherization and insulation of the front part (the oldest part) of the building. An insulation project is under consideration for the new part of the building. Changes to the heating plant are under consideration for the future. Some of the exterior lights have been converted to LED's.

The EMS building has updated lights and the heating and hot water system is propane. The last area of concern would be insulation, and an energy audit would be beneficial.

8.5 RENEWABLE ENERGY

In general the Town of Barre supports the use of renewable energy systems provided that they fit into the goals of the Town Plan, taking into account noise, scenic vistas, and impacts on resident's quality of life.

These sources are represented by wind, solar, wood, geothermal and hydro. . While renewables represent a chance to move away from fossil fuel sources, they are not without their own negatives such as; aesthetics, noise, cost, reliability, and availability.

Wind turbines are relatively expensive, can be high maintenance, have siting issues (works best at higher elevations, and on ridgelines), may cause noise issues, moving shadows, etc. with adjacent property owners, may negatively affect property values, and of course only works when there is sufficient wind speed. Aesthetics are a major concern.

- As a result of the factors listed above, full size industrial wind turbines are not a good fit for the Town and should not be allowed. Small to mid size turbines, such as the one currently located on property owned by Rock of Ages, also have some of the same potential impacts and should only be allowed on a case by case basis if siting criteria take into account all the potential negative affects and setbacks.
- Set back requirements should be established for wind turbines, so that blade and tower failures do not impact adjacent properties.

Solar energy is represented by both solar hot water heating systems (domestic hot water), and solar electricity (photo voltaics - PV). Solar hot water systems require minimal space and can be located on roofs or ground mounted Solar arrays needs full sun and to be pointed south for the best performance... Essentially all of the solar heat generated is stored in a hot water pre-heater tank. Payback on the systems is fairly short term given that there are both state and federal rebates/incentives available. These systems would also be appropriate for heating in ground pools. Could be located all zones.

PV requires a much larger array of panels and will have a more visual impact on surrounding properties. Residential PV systems are more expensive than hot water and even with incentives, payback can be up to 20 years. As with solar

hot water systems, can be roof mounted or ground mounted. Building mounted solar arrays mounted on existing buildings, utilize space that is already impervious and has minimal impact on land use.

- Ground mounted systems would be compatible in most zones, but should be subject to the same property line set back requirements as other structures.

Conflicts about the use of solar panels may arise with adjacent property owners. Issues would be the sun reflecting off from a solar panel into an adjacent home, or a neighbor who plants a tree or trees, constructs a building or other structure that blocks the sun from reaching the panels.

Commercial scale PV systems are larger in scope and generally require using large areas previously open land. These could have a visual impact on both the area they are located in and on views within the town. Electric transmission lines may also need to be expanded or constructed to carry the electricity produced from a commercial PV system, which is another potential impact on the town. The siting of large solar arrays may be in conflict with the Town's goals of preserving scenic vistas and natural resources.

- The planning commission should address commercial PV systems to determine appropriate allowable zones, and restrictions (if any).

Wood is available as both firewood and pellets. Generally firewood is produced in or within a few miles of Barre Town which minimizes transportation costs and supports a local economy. Firewood removal from forest land is also an important tool for forest, wild life, and agricultural land management. While using fire wood for heat in stoves and inside boilers is a logical step to replace or supplement fossil fuels, outside wood boilers have their own particular set of issues. Generally the flue pipe (smoke stack) is short and in certain meteorological conditions can cause significant ground level smoke plumes to the detriment of the neighbors. Outside wood boilers used in the summer for hot water production can also create low lying smoke plumes.

- There may be zones where these devices may not be compatible (high and very high residential).
- Zoning regulations should be reviewed to define the appropriate use of outside wood boilers.

Pellets at this point are not produced locally so not unlike fossil fuels there is transportation cost associated with them. But still they are a renewable energy source and do replace fossil fuel usage. Pellets burn more efficiently than firewood and hence is less of a concern for contributing to chimney fires reducing demands on the fire department

At this time there is little opportunity for hydroelectric production due to small size of the streams and rivers in the Town, and the extensive and expensive permitting (state and federal) required.

- Should Barre Town ever establish a larger water supply system (from wells), an in-line electric generating system in the water transmission pipe may be worth considering

Geo-thermal heating is a clean, emission free technology which has minimal impact on adjacent property owners and Town services. Federal tax incentives may be available to installing a geo-thermal heating system. A state permit may also be required to operate a geo-thermal system.

Recommendations:

- Continue to inform the public through zoning of State Residential Energy Standards and the requirement that new construction meet those standards.
- The Development Review Board should encourage developers (residential and commercial) to utilize energy efficient insulation, weatherization, heating and lighting in all projects.
- The Town should encourage the use of the Energy Efficient Mortgage Program which helps home owners

finance energy efficiency improvements at lower than normal interest rates. The Town also encourages use of the CVCAC Weatherization Programs for eligible residents;

- The Town should encourage developers to design subdivisions for appropriate solar orientation and the use of solar hot water systems and photo voltaics when appropriate.
- Selectboard should create an Energy Committee comprised of Town citizens and officials to explore ways to make the Town government operations more efficient in the use of energy.
- Encourage homeowners to have a whole house energy audit performed to review: lights, insulation, weatherization, heating, appliances.

9. HOUSING

9.1 BASIS AND OBJECTIVES FOR HOUSING PLAN

Vermont law requires municipal plans to include a housing element with a recommended program for addressing low and moderate income persons' housing needs as identified by the regional planning commission, 24 VSA § 4382 (a) (10). This plan seeks to identify areas of potential weakness in the Town's current housing situation and proposes possible solutions to ease housing burdens for Town residents, especially those identified as low or moderate income. By properly managing and planning for development of new housing stock as well as rehabilitation of existing residences, the Town will be better able to attract new residents.

Title 24 of Vermont Statutes Annotated, Section §4302 (11) states the following: To ensure the availability of safe and affordable housing for all Vermonters.

(A) Housing should be encouraged to meet the needs of a diversity of social and income groups in each Vermont community, particularly for those citizens of low and moderate income.

(B) New and rehabilitated housing should be safe, sanitary, located conveniently to employment and commercial centers and coordinated with the provision of necessary public facilities and utilities.

(C) Sites for multi-family and manufactured housing should be readily available in locations similar to those generally used for single-family conventional dwellings.

Objectives related to housing include:

- Encouraging urban growth to take place in clusters
- Promoting sound development practices
- Promoting safe and sanitary houses for all residents within an environment that is visually attractive
- Conserving natural resources by providing for public recreation areas
- Encouraging traffic safety
- Attracting business/employment for economic stability.

This plan seeks to carry forward and expand upon these goals and objectives, while looking at the events that have occurred since previous Plans were adopted

The factors affecting housing availability to all income groups in Barre Town go beyond the costs of buildings and land. They include job creation, access to services, community spending on adequate infrastructure, and the viability (and desirability) of Barre Town's neighborhoods as places to live. When looking at the overall housing picture in the Town, it is impossible not to tie in other parts of the plan including demographics, economic development and recreational opportunities. The latter two, as well as the quality of the Town's elementary and middle school, are strong factors that influence whether or not people move to Barre Town. Barre Town has experienced modest population growth in the last two decades when compared to Vermont as a whole, but when compared to neighboring towns it is apparent that the Town has attracted people while others have experienced net losses in population.

	General Population			Change	Change
	2010	2000	1990	00-10	90-10
Barre City	9,052	9,291	9,482	-2.6%	-4.5%
Barre Town	7,924	7,602	7,411	4.2%	6.9%
Berlin	2,887	2,864	2,561	0.8%	12.7%
East Montpelier	2,576	2,578	2,239	-0.1%	15.1%
Montpelier	7,855	8,035	8,247	-2.2%	-4.8%
Northfield	6,207	5,791	5,610	7.2%	10.6%
Washington County	59,534	58,039	54,928	2.6%	8.4%
Vermont	625,741	608,827	562,767	2.8%	11.2%

What is particularly striking about Barre Town's population growth is that the elderly population has been growing at a pace more than double than that of Vermont as a whole. In the past two decades, the population of residents 75 and older has risen by almost 154%, or 361 persons.

	Population 75+			Change	Change
	2010	2000	1990	00-10	90-10
Barre City	767	1,005	818	-23.7%	-6.2%
Barre Town	596	443	235	34.5%	153.6%
Berlin	427	260	223	64.2%	91.5%
East Montpelier	161	121	80	33.1%	101.3%
Montpelier	641	643	667	-0.3%	-3.9%
Northfield	331	371	312	-10.8%	6.1%
Washington County	4,011	3,679	3,300	9.0%	21.5%
Vermont	42,440	36,827	28,887	15.2%	46.9%

9.2 AFFORDABLE HOUSING

The U.S. Department of Housing and Urban Development (HUD) states the following:

"The generally accepted definition of affordability is for a household to pay no more than 30 percent of its annual income on housing. Families who pay more than 30 percent of their income for housing are considered cost burdened and may have difficulty affording necessities such as food, clothing, transportation and medical care. An estimated 12 million renter and homeowner households now pay more than 50 percent of their annual incomes for housing, and a family with one full-time worker earning the minimum wage cannot afford the local fair-market rent for a two-bedroom apartment anywhere in the United States. The lack of affordable housing is a significant hardship for low-income households preventing them from meeting their other basic needs, such as nutrition and healthcare, or saving for their future and that of their families" (source: www.hud.gov).

Vermont is very fortunate to have a robust network of state, federal, private and non-profit entities that focus on affordable housing. Whether assisting with the purchase, rehabilitation or construction of owner-occupied dwellings or providing rental units at affordable and/or subsidized rates, a wide array of programs exist to help ease the housing burden. Unfortunately all such programs are subject to budget constraints, and can only go so far in even the best of economic times. Identifying all potential housing partners is beyond the scope of this Plan, but the predominant ones include:

Vermont Department of Economic, Housing and Community Development (DEHCD) One National Life Drive, 6th Floor Montpelier, VT 05620-0501 Phone: (802) 828-3211 Fax: (802) 828-3258 Website: http://www.accd.vermont.gov/strong_communities	Vermont Housing and Conservation Board (VHCB) 58 East State Street Montpelier, VT 05602 Phone: (802) 828-3250 Fax: (802) 828-3203 Website: www.vhcb.org
Vermont Housing Finance Agency (VHFA) PO Box 408 - 164 St. Paul Street Burlington, VT 05402-0408 Phone: (802) 864-5743 Fax: (802) 864-5746 Website: www.vhfa.org	Vermont State Housing Authority (VSHA) 1 Prospect Street Montpelier, VT 05602-3556 Phone: (802) 828-3295 Fax: (802) 828-3248 Website: www.vsha.org
U.S. Department of Housing and Urban Development (HUD) Vermont State Office 95 Saint Paul Street, Suite 440 Burlington, VT 05401-4486 Phone: (802) 951-6290 Fax: (802) 951-6298	USDA-Rural Development (RD) 89 Main Street, City Center, 3rd Floor Montpelier, VT 05602 Phone: (802) 828-6002 Fax: (802) 828-6018 Website: www.rurdev.usda.gov/vt
Barre Housing Authority 4 Humbert Street Barre, VT 05641-4529 Phone: (802) 476-3185 Fax: (802) 476-3113 Website: www.barrehousingauthority.com	Central Vermont Community Land Trust 107 North Main Street Barre, VT 05641 Phone: (802) 476-4493 Fax: (802) 479-0120 Website: www.cvcclt.org
Housing Vermont 123 St. Paul Street Burlington, VT 05401 Phone: (802) 863-8424 Fax: (802) 660-9034 Website: www.hvt.org	Central Vermont Community Action Council (CVCAC) 195 US Route 302, Berlin Barre, VT 05641 Phone: (802) 479-1053 Fax: (802) 479-5353 Website: www.cvcac.org
Vermont Affordable Housing Coalition 275 Northgate Drive Burlington, VT 05408 Phone: (802) 660-9484 Fax: (802) 859-9540 Website: www.vtaffordablehousing.org	Vermont Housing Data Website c/o Vermont Housing Finance Agency P.O. Box 408 Burlington, VT 05402 Fax: (802) 864-5746 Website: www.housingdata.org

Barre Town does not have any family housing units that are subsidized but does have 45 units of elderly subsidized housing. These include 30 units at Quarry Hill Apartments (Graniteville) and 15 units at Avery Apartments (East Barre). Both apartment complexes were built around 1985-6.

- The Planning Commission recommends that the Town investigate ways in which it can work with various

partners to expand the number of affordable housing choices locally, including both units for rent and affordably priced single-family homes.

Families are important to overall stability. There has been a 17% drop in number of 30-39 year olds. Families keep attendance up in schools, in theory more disposable income to spend in the area. The number of local jobs has decreased over the last 5 years and the average local wage has only increased by 2.1%. The average wage paid in Barre Town is \$37,460.

9.3 AVAILABLE HOUSING

Vermont State Statutes (24 VSA § 4347) requires that Regional Planning Commission's plan for anticipated growth in the region that they cover. Based on a forecast through the year 2020, the Central Vermont Regional Planning Commission (CVRPC) has devised a housing distribution plan, by Town, so that Towns can plan for how they can meet the expected demand and fulfill their contribution to the regions housing needs. Projections made by CVRPC show that Barre Town will be asked to create the most housing units of any other town in our region. This is probably due to many factors, many of which are detailed in this plan but also due to Barre Town's quality of life, land availability and proximity to infrastructure.

CVRPC projects Barre Town's contribution to be as follows:

2010-2014	268 housing units
2015-2020	382 housing units
2000-2020	956 housing units total

The total number of housing units projected for the region is 8,835. Barre Town's 956 is 11% of the region. The next closest Town is Montpelier at 9% or 779 housing units.

There are many factors that go into why people build housing in certain places. Certain towns like Barre Town, Montpelier, Barre City, Northfield, and Waterbury for example each have different characteristics which make them desirable, but all have a variety of municipal services. Conversely, Town's like Orange, Washington, and Calais have characteristics totally different and may not have municipal water, sewer, full-time police protection, etc. Certainly land use regulations can have an effect on development and Barre Town continues to support development and our zoning is designed for that purpose.

- It is prudent to take advantage of existing infrastructure and development patterns and provide incentives to develop in these areas. However, it is largely up to developers and the market to decide where and how much housing is created. Barre Town understands its place in the region and its proximity to many economic centers and will continue to encourage controlled growth and not put barriers in the way to inhibit it.

The attached land use map (map 7) shows broad areas of dense development. These dense areas would include Barre Town's very high density and high density zoning areas. The housing assessment map (map 4) shows areas of Barre Town where affordable housing would be best suited because of the availability of municipal sewer and water which allows for more dense development. The assessment map also shows new housing construction from July 2007 through June of 2013 which generally follows the target development area.

While zoning permits for new construction of homes has leveled off, the last five years is far below years prior to 2007 and home additions have generally decreased. There is not doubt the economy has had a great impact on housing development in Barre Town.

Zoning Permits Issued					
	11-12	10-11	09-10	08-09	07-08
Dwellings	14	12	23	15	19
(Includes all homes)					
Home Additions	11	12	19	21	35
Totals	25	24	42	36	54

Subdivision activity has declined over the last several years.

Subdivisions Approved					
	11-12	10-11	09-10	08-09	07-08
Subdivision request approved	4	9	9	6	10
New Lots created	6	14	12	7	75*
Average # of Lots	1.5	1.6	1.3	1.1	7.5

* includes a 64 unit PUD

Barre Town expects that at some point in the future, because of factors detailed earlier in this section; both subdivision activity and new home construction should begin to gradually increase.

The 2010 census reported Barre Town had 3,228 housing units, an increase of 6% from 2000. The occupancy rate average is 95%. Of the total housing units, 2,738 were owner-occupied, and 490 were rental units. This correlated with an average household size in 2010 of 2.1 persons per occupied rental unit. In owner-occupied households, the average household size is 2.45.

Barre Town, through the Zoning Bylaw, has tried to encourage cluster development with density bonuses for Planned Unit Developments (PUD). There are many benefits to having PUD's including fewer infrastructures and preserving land from development. This preference for green space allocations is a major contribution to community planning for Barre Town. Continued review of PUD incentives should be done and incorporated into Town Zoning and Subdivision Regulations so that development can be incorporated into existing densely developed areas and in conjunction with existing infrastructure.

In 2008 Barre Town completed a major rewrite of the land use regulation (Zoning Bylaw). While housing is somewhat discouraged in commercial areas as a result of the rewrite, mixed use development is now permitted and encouraged.

- Future zoning revisions may include incentives for mixed use development.

Mixed use development was added to allow for a better use of commercial areas. Prominent commercial space on main routes is scarce and developing these areas with too many residential uses and not enough commercial can have a negative impact on economic development.

- The mixed use concept is a fair compromise.
- Beyond the mixed use residential development Barre Town supports the use of commercial land for residential purposes if the number of units created is maximized with at least 8 units of housing with no maximum.

Barre Town also supports the creation of accessory dwellings anywhere residential uses are allowed. Accessory dwellings are an important way of allowing single-family dwellings to benefit from having a second living unit with little permitting. Some important benefits include economic, allowing extra income, and family orientated, allowing sick or older family members to be cared for close by but giving them the space and privacy that many desire. Zoning was changed to allow accessory dwelling by issuance of a change of use permit reviewed and issued by the Zoning

Administrator assuming no exterior alterations are being made. Previously, accessory dwellings were reviewed and approved by the Development Review Board. Accessory dwellings altering the exterior still are required to get a Conditional Use Permit.

In the past five years, Barre Town has created a total of 107 new units of housing encompassing all types of residential use including accessory dwellings. Approximately 70 more housing units have been approved by the Development Review Board but the developers have not sought zoning permits for actual construction. Other developments which would create several hundred housing units have been master planned but no serious plans at this time have come forward for them to proceed.

9.4 COMMUNITY INVOLVEMENT AND INFORMATION ON HOUSING

Many of the resources needed to insure housing opportunities and a quality neighborhood environment for all citizens will have to be found in Barre Town itself. Federal and state housing funds are not enough to meet the needs of communities throughout Vermont and the rest of the country. To accomplish realistic goals in an effective housing plan, the Town must recognize that this is a problem affecting all residents, and work together. Enhanced community understanding is needed to dispel negative misconceptions about affordable housing.

Given Vermont's emphasis on public participation in planning decisions, an informed public is essential to meaningful discussion of this complex issue. Negative reactions can be so strong that momentum can be stopped unless grassroots "pro-action" leads people to get involved at the local level. Education can help Town residents to be more open to different ideas such as infill development in existing neighborhoods, changes to existing Town ordinances, and public/private partnerships with the Town taking an active lead.

9.5 HOUSING REHABILITATION

Since 1992, Barre Town has been committed to affordable housing Rehabilitation through the use of Vermont Community Development Program (VCDP) funds. The Town established a Citizen's Housing Advisory Committee to oversee a program of housing rehabilitation loans designed to assist homeowners in making needed repairs and improvements to their properties.

This program has been very successful in achieving its goals, but the fund has been significantly depleted due to its success and design. As a result, the focus of the program (hoping to utilize the remaining funds, benefiting as many Town residents as possible) has changed.

The Town, committed to assisting Town residents when possible, merged funds from another housing grant (The Plainfield Consortium) and the first loan payment income of the Vermont Food Bank Community Development Grant. This makes more funds available for housing rehabilitation requests.

In the fall of 2003, the Town of Barre and Central Vermont Community Land Trust (CVCLT) entered into an agreement whereby CVCLT handles loaning Town of Barre housing rehabilitation money. CVCLT takes all applications for loans, processes them, makes decisions on them, and provides the money and the follow-up. This has been a good cooperative effort as it helps CVCLT meet some of the demands they come across through other programs they handle and helps the Town distribute this money without the extra strain on staff to manage it.

A member of the Citizen Housing Advisory Committee is appointed by the Selectboard to sit on CVCLT's Loan Committee. CVCLT amended their policies to allow this to happen and to ensure program compliance. The loan funds have been used to repair and upgrade a number of Barre Town residences.

- While funds available for lending fluctuate, the Planning Commission recommends studying ways in which it can increase the supply of funds available to lend to Town residents, as well as explore other opportunities to secure public monies that can be used to retrofit and/or improve the energy efficiency of private housing units locally.

Dilapidated and Unsafe Structures

Housing quality is a concern to the community of Barre Town. While the quality of housing varies, Barre Town has not seen a significant problem as it relates to inhabitants safety.

- At some point, Barre Town may wish to consider greater scrutiny over housing standards as they relate to health and safety. If the Town sees a need in the future, Zoning Bylaws and Subdivision Regulations may be revised to include safe housing codes for old and new structures. Revised Zoning Bylaws and Subdivision Regulations that include safe housing standards and/or codes will ensure that dilapidated or unsafe structures will be renovated to meet current standards for health and safety or be torn down.
- Additionally, the Town may want to review, using the conditional use criteria, and approve all interior and exterior renovations for all structures deemed dilapidated or unsafe by the Zoning Administrator.

9.6 HOUSING GOAL AND RECOMMENDATIONS

The Town supports the responsible development of housing that meets the needs of persons in all income categories.

Recommendations to alleviate housing shortfalls:

- Encourage clustered housing units as an economical way to reduce infrastructure and land costs, thereby promoting affordability;
- Pursue state/federal planning funds to help the Town collect current data for affordable housing development and to assess the impact of such a project upon the Town's schools, infrastructure, and services;
- Fund the Town's existing housing rehabilitation program with additional monies to assist low income families;
- Pursue housing funds, in conjunction with developers and local housing partners, to provide assistance in financing affordable housing development;
- Promote the development of housing for the elderly.
- Create incentives for mixed use development that includes residential uses.

10. ECONOMIC DEVELOPMENT

10.1 INTRODUCTION

Economic Development strategy and planning are imperative to Barre Town's goals of success and growth by creating jobs, adding wealth to the community and enhancing the Town's property tax base. Successful economic development is implemented, in large part, by a team that consists of area professionals, municipal leaders, Town staff and elected officials. All existing Town of Barre businesses and potential new or relocating businesses interested in locating in Barre Town should be assisted in every way possible, with special attention given *--to enterprises that are identified as "priority".

The mission of the Barre Town Economic Plan is as follows:

- To create sustainable jobs. To assist existing businesses as may be necessary to retain existing jobs.
- To add to the Town's grand list to and to reduce the Town's reliance on residential property owners to fund the operations and enterprise of Town government.
- To strengthen and diversify the local economy by actively supporting the growth of priority businesses.

Priority Businesses:

- Existing and new businesses.
- Businesses that pay at or above the area median wage.
- Businesses those are responsive to community interests.
- Primary income generators (those that create other business opportunities).
- New added value producers and companies that export products or services outside the region or State.
- Businesses that support existing Barre Town and regional businesses.
- Businesses that use existing Town resources efficiently and procure raw materials within the region and State.

Objectives of Program:

- Improve the Town's median per capita and household income in relation to the state and county medians (Barre Town is currently higher than both of these medians).
- Contribute new jobs to the Central Vermont economy.
- Assist in the development of start-up, new, and existing businesses.
- Promote economic development initiatives such as tax stabilization and a climate that is conducive to the creation of new jobs.

10.2 ECONOMIC DEVELOPMENT INITIATIVES, PRESENT AND FUTURE

Barre Town and Barre City are symbiotic municipalities, each with unique attributes that, when utilized in tandem, create a comprehensive community that offers an economic development environment that is beneficial to businesses. Like Barre City, Barre Town contracts annually with Barre Area Development, Inc. (BADC) -- a local development corporation -- to provide complete, professional economic development services to both municipalities. BADC employs a full-time Executive Director for this purpose.

The Economic Development Revolving Loan Fund (RLF) provides Barre Town residents with small business loans for "start-up" or expansion. These loans are being administered for nineteen Central Vermont communities by Community Capital of Vermont, Barre VT 802-479-0167 (www.communitycapitalvt.org). A new RLF, specific to businesses in Barre Town and Barre City, funded through loan repayments of a Community Development Block Grant (CDBG) loan to SB Electronics (SBE) is also available to assist businesses. This new RLF will create up to \$ 500,000 in potential funds intended to be loaned in larger amounts to increase employment, preserve jobs and enhance the competitiveness of existing businesses. BADC markets the Loan Program and it is administered by the Vermont

Community Loan Fund.

Wilson Industrial Park (WIP) is a distinctive commodity in Barre Town as it houses a collection of very successful and diverse businesses including SB Electronics, Northern Power Systems, Vermont Creamery (formerly Vermont Butter and Cheese), Highland Sugarworks, Adams Granite, Hillside Granite, Trono Fuels, Vermont Food Bank and Spruce Mountain Granite. These solid employers continue to appreciate WIP's attributes and aesthetics, which boast mountainous views; modern and convenient infrastructure, and rail service that bisects the park. New in 2014 in the WIP includes an office building for New England Excess Exchange and addition for both Vermont Creamery and Spruce Mountain Granite. The possibility also exists of a wholesale distribution center on adjacent property. As the Town plans for the consolidation and relocation of its public work facilities, there is the possibility of existing buildings and lots becoming available for new Industrial Park tenants, thereby creating additional economic opportunities and jobs.

Another important initiative being considered is the utilization of combined heat and power facilities (CHP) for some of the businesses in the Wilson Industrial Park. This could take the form of propane or compressed natural gas fired units that generate electricity with the waste heat being diverted for manufacturing processes of space heating. Barre Area Development Corporation is investigating the viability of implementing the facilities and providing financial incentives. The primary objective is to lower operating costs for businesses while providing back-up power to meet critical operational needs.

Northern Power Systems and SB Electronics are companies that look to capitalize new market opportunities requiring skilled, higher wage workers. Both are anticipating more hiring as their sales increase. . SB Electronics constructed a state-of-the-art building – the centerpiece of an \$18 million expansion less than three years old.

As the Town considers moving its operations from the nearby Town garage, and possibly selling its maintenance building in the Industrial Park, additional land and building may become available for industrial/commercial uses to create more jobs.

The Barre Town Forest, a \$1.37 million endeavor, has seen the opening of hundreds of acres of Town Forest that may be used for such recreational activities as mountain biking, hiking, cross-country skiing and running, snowmobiling, disc golf and horseback trail riding. Other future activities may include scuba diving ropes courses, and possible but limited ATV use on a connecting trail. This one-of-a-kind property offers incredible vistas and a peek into the rich granite industry history on which the area was founded. Already, the acreage is being used as a marketing and recruiting tool for Barre Town companies whose clients and employees find the outdoor offering attractive. Tourism, recreation and economic development opportunities are a catalyst to the creation and expansion of eateries, hotels, equipment rental and other hospitality enterprises.

Washington County Mental Health Services purchased and commenced construction upgrades on two buildings in Barre Town in 2012 with a total project cost of \$5.3 million. WCMHS has agreed to a PILOT (Payment In Lieu Of Taxes) payment to ensure Barre Town maintains its current tax revenue on this property. WCMHS expects to employ in excess of one-hundred staff members at this location.

Rock of Ages, a stalwart in Barre Town, and Northeast Materials Group teamed up to pursue contracts that will utilize the abundance of large granite aggregate found on Rock of Ages property. The likelihood of such contracts will require the use of rail to move this product. To that end, the Vermont Agency of Transportation has gone to great lengths and expense to upgrade the rail line between Montpelier Junction and Barre Town. Consistent use of this rail asset has the potential to reduce transportation costs of bulk commodities such as granite and crushed rock, and perhaps enable other enterprises to import materials and export products that economically arise from rail capacity.

Northeast Materials Group received local and State permits to install an asphalt plant which will provide a local source for bituminous concrete. This may help lower transportation project costs.

The Town's seasonal changes, scenic vistas and pastoral beauty provide tourist related opportunities. It also has much to offer in terms of the tours of Rock of Ages, local cemeteries' exhibiting truly exceptional granite sculpture, headstones, and local history. To underestimate these attractive assets would be to under serve the visitors to Central

Vermont. Some elements of economic development is promoting the unusual and unique attractions that are taken for granted every day.

10.3 ECONOMIC DEVELOPMENT CRITERIA

The following criteria will be used to guide decision making in the course of implementing the Economic Development Plan:

- Industrial/commercial growth should conform to Land Use Planning.
- Development efforts in the Town should focus on net new jobs and value added to the Barre economy.
- Development should produce a net benefit to the Town in terms of added value to the Grand List compared measured against new demands on Town services.
- Development should occur at a measured pace that does not overwhelm the Town's resources of land, labor and services.

10.4 MUNICIPAL TAX STABILIZATION

The Town has an Industrial and Commercial Tax Stabilization Policy. This policy is intended to insure that the community subsidy of tax stabilization will result in a public benefit. The policy outlines detailed criteria and eligibility standards. The process outlined in the policy allows the Board of Selectboard to evaluate each tax stabilization request in a fair and equitable manner. New Municipal taxes can only be assessed on new construction and qualifying renovations which increase tax values.

10.5 AVERAGE WAGES

Central Vermont has accomplished much in regard to its goal to bring the county average wages up to nationwide averages. The 2004 data shows Central Vermont is above or just below the average of all employees in the entirety of the rest of the United States. Labor force composition, cost, skills, reliability and availability weigh heavily in decision making for corporations seeking new locations. The chart below shows evidence of a strong economy with annual average wages increasing across the board.

The following chart illustrates annual average wages for 2000, 2004, and 2010 as compared to statewide, New England and U.S. statistics. Source: Vt. Dept. of Employment & Training:

Annual Average Wages			
VT Department of Labor			
	2000	2004	2010
Washington County	\$28,306	\$33,331	\$40,878
Orange County	\$23,240	\$27,513	\$33,080
Chittenden County	\$34,301	\$38,433	\$46,213
Vermont	\$28,920	\$33,276	\$39,425
Barre City	\$26,602	\$30,199	\$37,631
Barre Town	\$32,352	\$33,338	\$37,460

Median Household Income US Census	
	2010
Washington County	\$57,163
Orange County	\$52,407
Chittenden County	\$62,260
Vermont	\$53,422
Barre City	\$41,349
Barre Town	\$64,088
Connecticut	\$69,243
Massachusetts	\$65,981
New Hampshire	\$64,664
United States	\$52,762

10.6 RECOMMENDATIONS

Economic Development efforts should include:

- 1) Visitation by BADC to:
 - a) Understand each business and its objectives;
 - b) Make businesses aware of business planning, technical, employment and marketing assistance programs available to them;
 - c) Promote the availability of capital to businesses that wish to grow, including special programs that are available for companies creating additional employment;
 - d) Assist businesses with permitting and regulatory issues;
 - e) Help businesses with tax stabilization if appropriate.
- 2) Ongoing promotion and marketing of the Wilson Industrial Park:
 - a) Through print and digital media in appropriate markets;
 - b) Build a website specific to the Industrial Park with relevant information such as infrastructure, pricing and the availability of land for sale, and buildings for sale or lease;
 - c) Make sure potential new or existing businesses are aware of the financing and tax incentives available for locating in the Industrial Park.
- 3) Promote recreational and tourism related activities:
 - a) Such as Rock of Ages, snowmobile trails, bike paths and trails, bed and breakfast etc.;
 - b) Work with Town committees to explore all options to promote recreational activities in the Town;
 - c) Specifically promote the Town Forest and its trail system for year round recreation;
 - d) Assist local organizations and businesses with promotion of events that will bring visitors to the Town.
- 4) Identify available commercial/industrial land and real estate for sale or lease so that potential new or relocating businesses can be quickly informed of what is available.

- 5) Look for synergistic opportunities wherein one Barre business can provide assistance to another to the mutual benefit of both entities.
- 6) To the extent that it is feasible and within the resources available to the Town, look to assist businesses reduce energy costs through incentives and new technology.

10.7 CHILD CARE

There is a strong link between having sufficient and quality child care and economic development. Child care supports economic development by investing in our children, providing choices to working parents, and fueling our regional economy. Demographics show there are more one-parent households as well as more two working-parent households than existed at the time of adoption of the previous Municipal Plan and the trend is expected to continue for some time.

The Town should ensure that its policies encourage, rather than impede, private child care providers from providing the service. One way the Town does this is by encouraging citizens to have in-home daycares and it supports that policy by not requiring a regulatory process if the care provider is not required to be registered by the State of Vermont. For registered in-home child care providers and larger commercial child care centers, zoning requires site plan review. While child care is important, there is still a need to review larger projects to ensure that issues associated with traffic, parking, noise, and other potential impacts are reviewed for safety and nuisance concerns. Commercial child care centers may also be subject to conditional use review.

The Town is not currently involved in providing municipal child care services beyond what the school provide.

Child care facilities are regulated by the Vermont Department for Children and Families, Child Development Division (www.dcf.vermont.gov/child_care.com). State law requires that a child care provider be registered with the Child Development Division if they provide care to more than two families, not including their own. Barre Town currently has 26 licensed in home and 7 commercial providers. It is unknown how many unregistered providers there are due to the aforementioned lack of regulatory process.

Recommendations

- Zoning regulations should continue to support in-home care providers as an allowed use and zoning regulations should not place undue burdens to providers.
- Public and privately operated after-school programs should be encouraged as an option.

11. IMPLEMENTATION

The purpose of the Vermont Municipal and Regional Planning and Development Act, T.24, Ch. 117, from which the Town draws its authority to implement the goals of this Plan, states the General Purposes as follows:

"It is the intent and purpose of this chapter to encourage the appropriate development of all lands in this state by the action of its constituent municipalities and regions, with the aid and assistance of the state, in a manner which will promote the public health, safety against fire, floods, explosions and other dangers; to promote prosperity, comfort, access to adequate light and air, convenience, efficiency, economy and general welfare; to enable the mitigation of the burden of property taxes of agricultural, forest and other open lands; to encourage appropriate architectural design; to encourage the development of renewable resources; to protect residential, agricultural and other areas from undue concentrations of population and overcrowding of land and buildings, from traffic congestion, from inadequate parking and the invasion of through traffic, and from the loss of peace, quiet and privacy; to facilitate the growth of villages, towns and cities and of their communities and neighborhoods so as to create an optimum environment, with good civic design; to encourage development of a rich cultural environment and to foster the arts; and to provide the means and methods for the municipalities and regions of this state to plan for the prevention, minimization and future elimination of such land development problems as may presently exist or which may be foreseen and to implement those plans when and where appropriate. In implementing any regulatory power under this chapter, municipalities shall take care to protect the constitutional right of the people to acquire, possess, and protect property".

This Plan is intended to carry out the General Purposes of the Planning and Development Act and should be implemented in conjunction with T.24, Chapter 117 in its entirety.

The Planning Commission is the body responsible for preparing the Town Plan. While the plan expires five years after adoption, planning is an ongoing process and this plan should be continuously reviewed for updates and relevant amendments incorporated as is warranted. The plan should be regularly consulted for implementation of goals, objectives, policies, and recommendations can be incorporated into or used as a guide for:

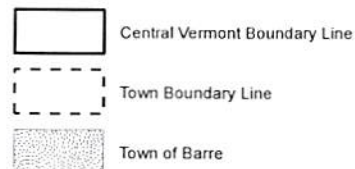
1. Subdivision Regulations
2. Zoning Bylaws
3. Zoning Districts Map
4. Budgeting
5. Infrastructure planning
6. Community services
7. Economic development
8. Improved housing
9. Preservation of historic and scenic features
10. Improve energy conservation

The Town Plan is also used for ACT 250 proceedings to determine whether a project conforms to the plan. A Town Plan will also be used by the Vermont Public Service Board during section 248 hearings (energy distribution). It is difficult to write a plan that parties to proceedings before the aforementioned boards can't use to further their cause. It is important for the Town to stay informed of these proceedings and use the plan during the process to protect the Town's interest as is necessary.

Barre Town

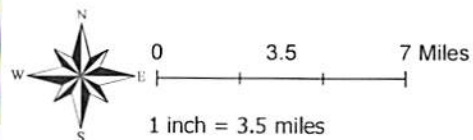
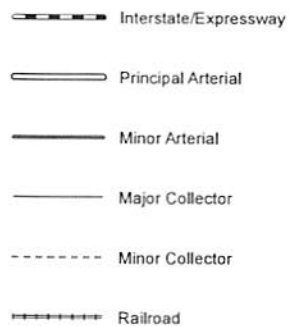
Central VT Regional Map

Legend



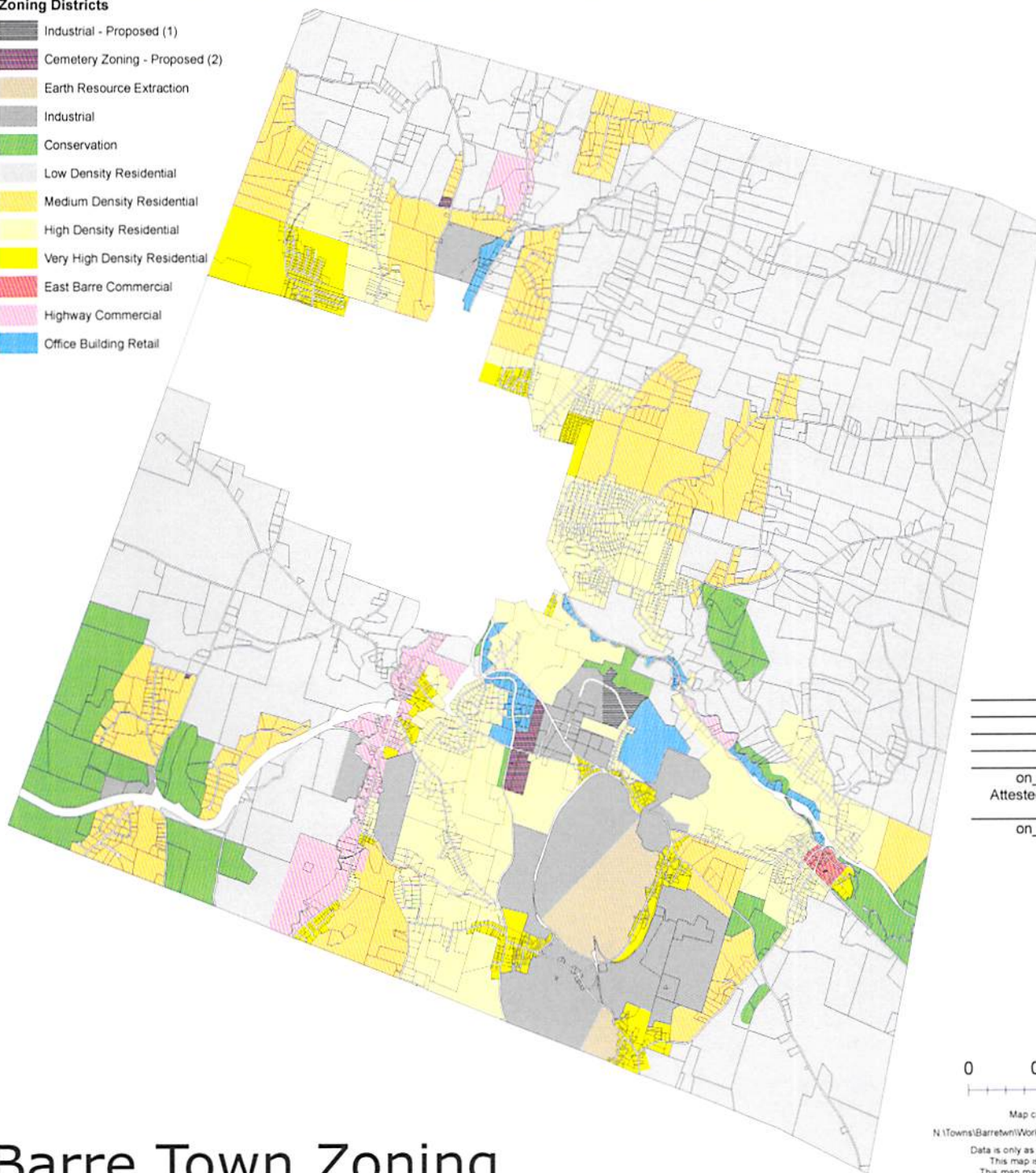
Roads:

Functional Class



Zoning Districts

-  Industrial - Proposed (1)
-  Cemetery Zoning - Proposed (2)
-  Earth Resource Extraction
-  Industrial
-  Conservation
-  Low Density Residential
-  Medium Density Residential
-  High Density Residential
-  Very High Density Residential
-  East Barre Commercial
-  Highway Commercial
-  Office Building Retail



Signed By

 on _____ 2008
 Attested by the Town Clerk

 on _____ 2008



0 0.5 1 Miles















Map created 09-09-08 by CVRPC
 N:\Towns\Barretwn\Working_zoning\Zoning_Template.mxd
 Data is only as accurate as the original sources.
 This map is for planning purposes only.
 This map may contain errors and omissions.

Barre Town Zoning

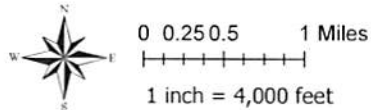
Barre Town

Utilities and Facilities

-  Town Library
-  Town Forest
-  Cemeteries
-  Former Pike Industrial Land
-  Wilson Industrial Park
-  Municipal Building
-  Public Works Facilities
-  Police Station
-  Fire Station
-  Ambulance House
-  School
-  Recreation/Picnic Areas

Roads

-  Town Highway
-  Legal Trail
-  Private
-  VT State Highway
-  US Highway
-  Water
-  Sewer Areas



This map is a general depiction only of the sewer service area. For more specific details, please consult with the Town Engineer's Office



Barre Town Housing Development Map

Legend

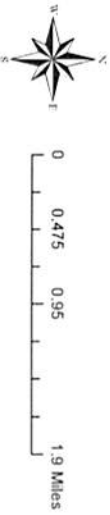
Housing Development

- July 2007 to June 2013

Target Growth Areas

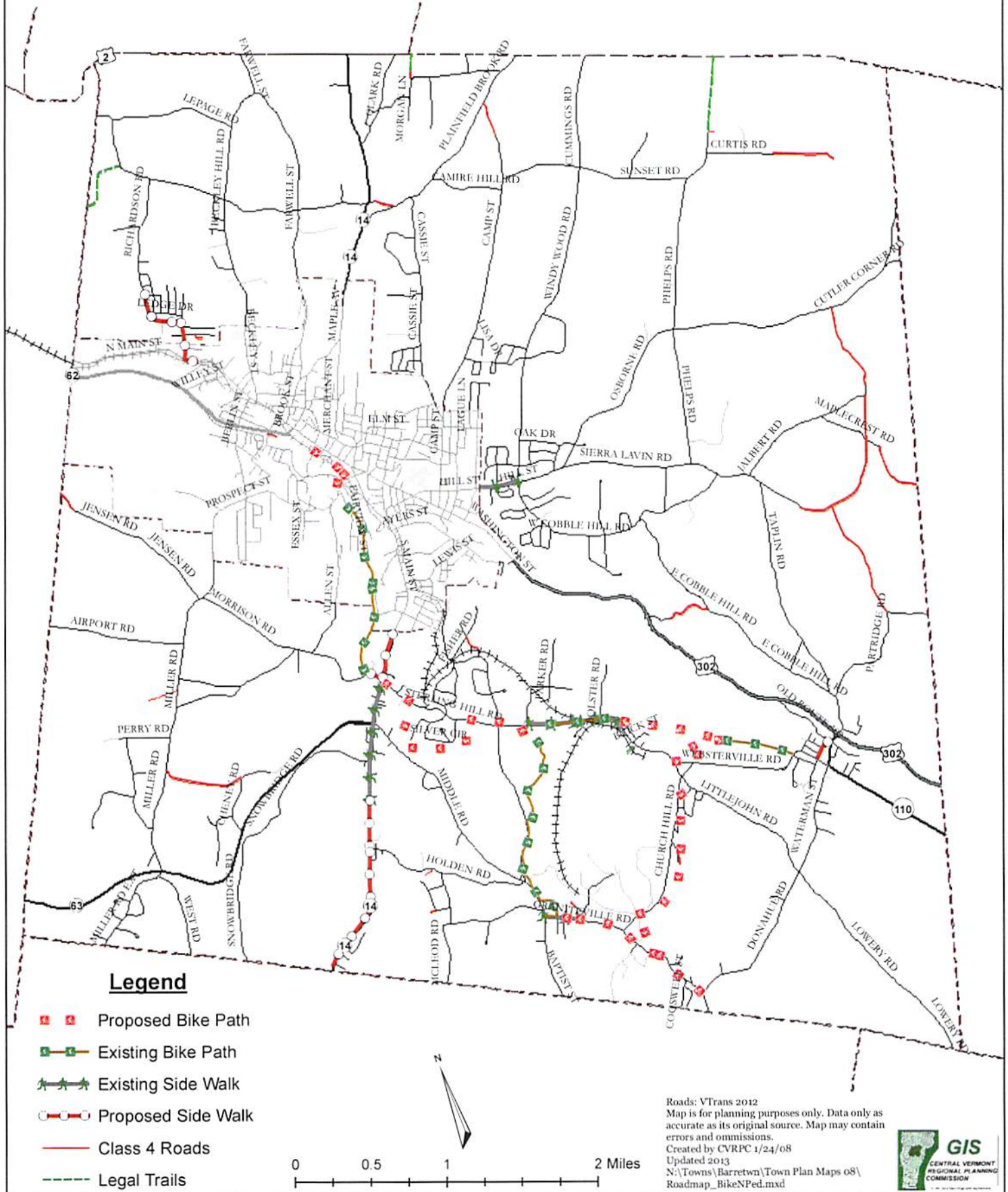
Roads:

- Town Highway
- Legal Trail
- Private
- VT State Highway
- US Highway



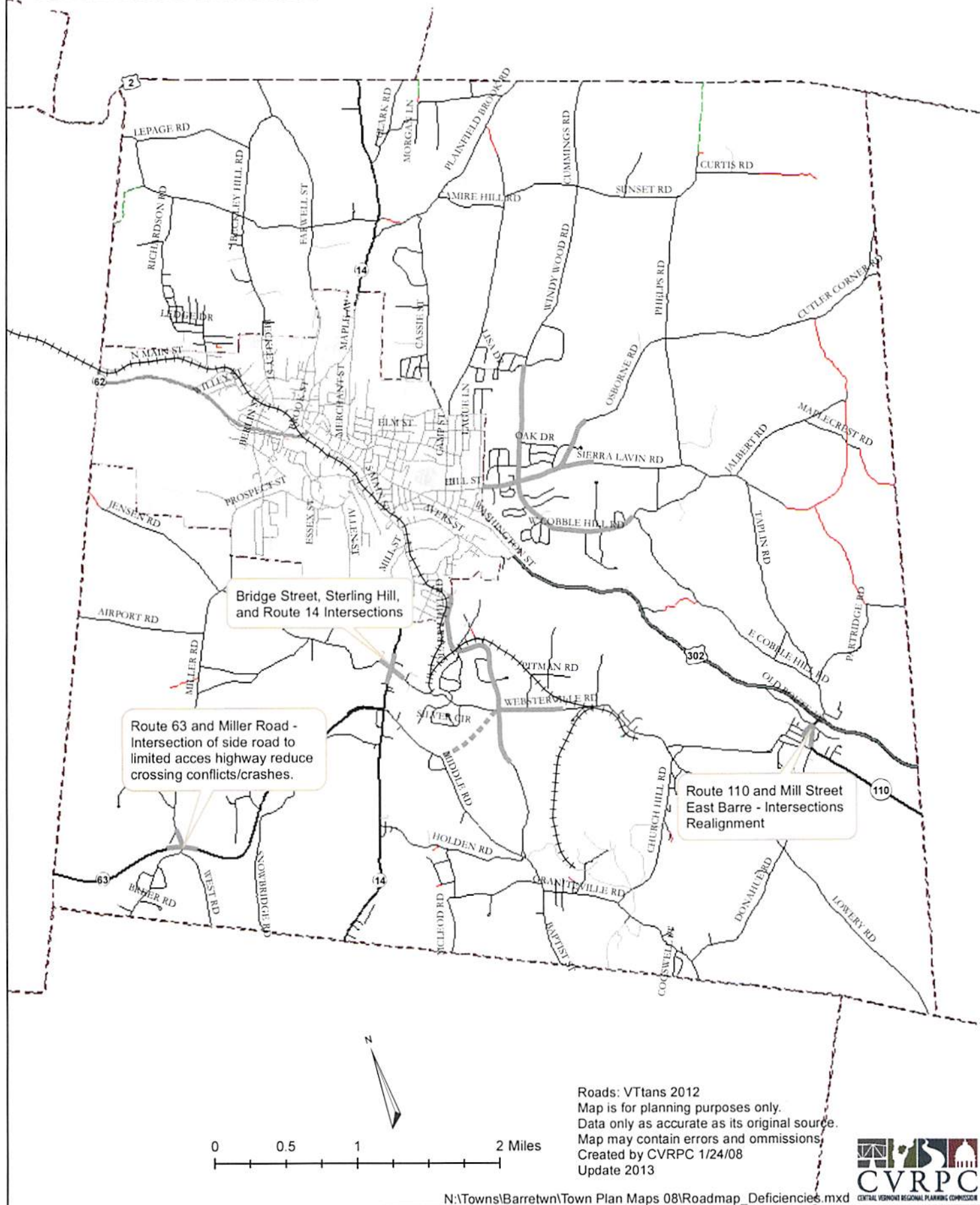
Town of Barre

Bike and Pedestrian Paths



Town of Barre






Town Road Deficiencies



Barre Town

Land Use/Land Cover




Roads

-  Town Highway
-  Legal Trail
-  Private
-  VT State Highway
-  US Highway

Individual E Sites

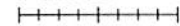
-  Commercial
-  Industrial
-  Public
-  Multi-family
-  Single Family
-  Emergency_ESITE_point

Land Use/Land Cover

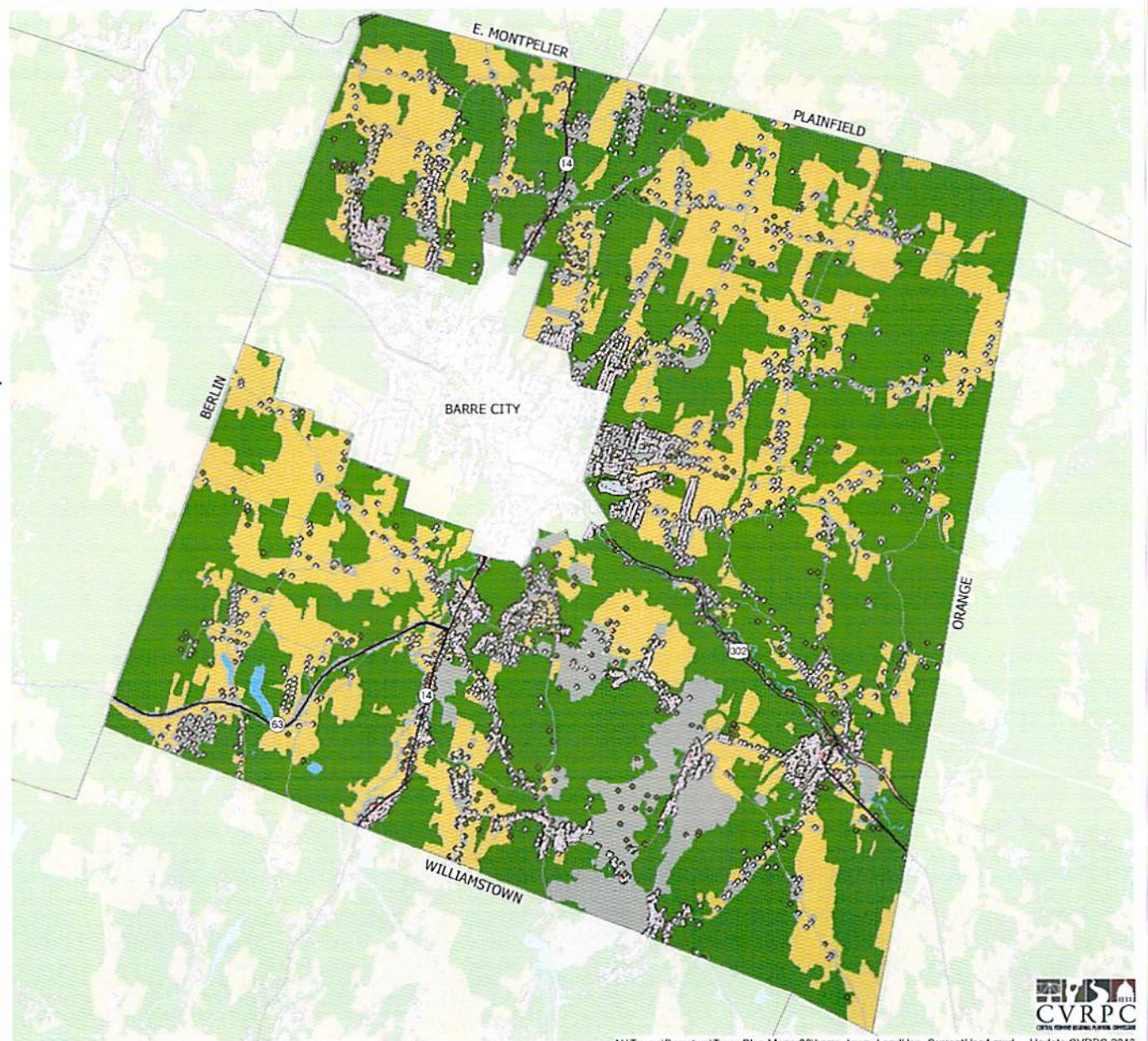
-  Agriculture and other
-  Urban
-  Forest
-  Water



0 0.25 0.5 1 Miles

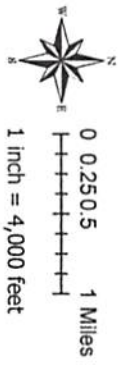


1 inch = 4,000 feet

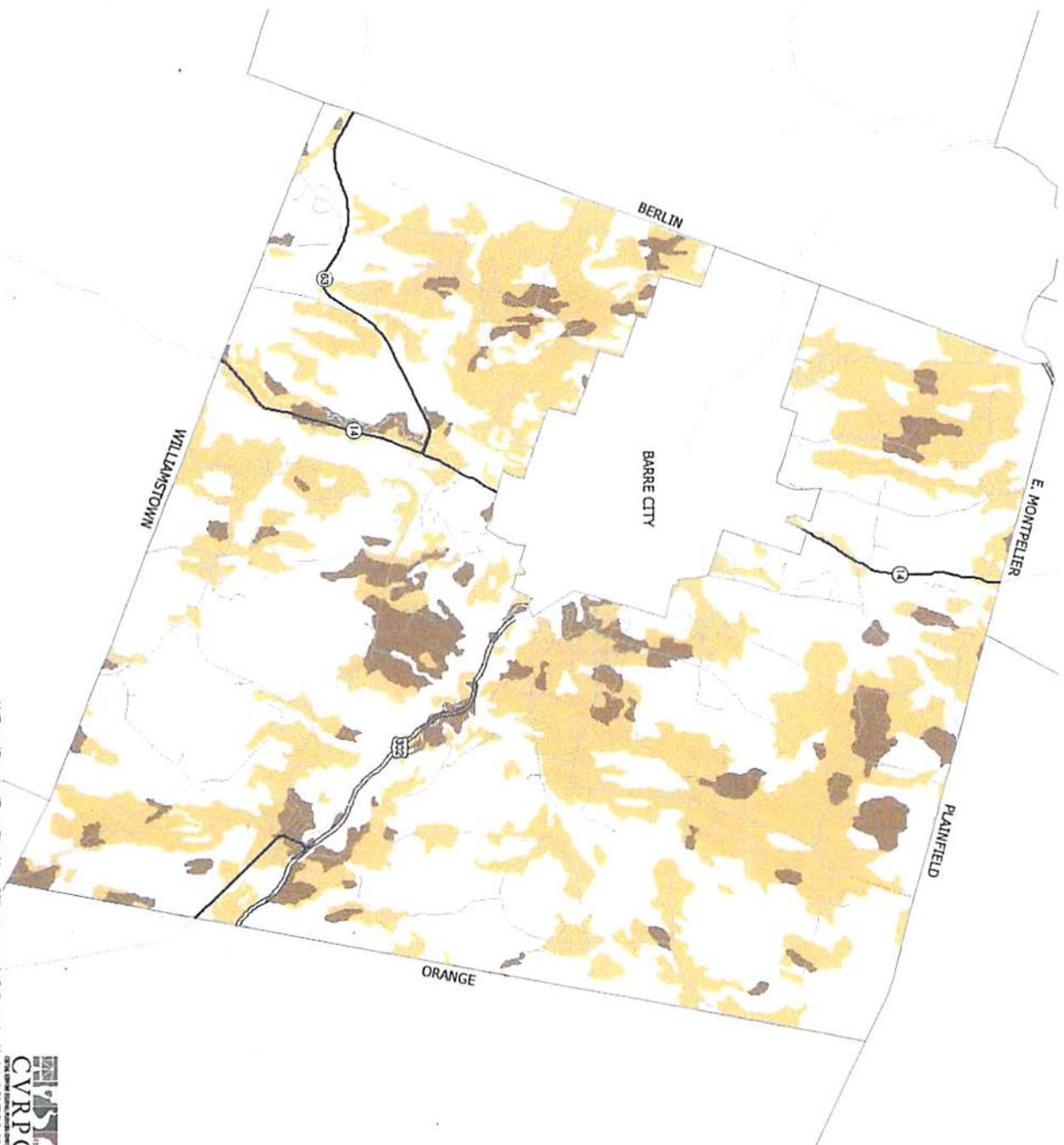


Barre Town

Agricultural Soils



- Soils**
- Prime
 - Statewide
- Roads**
- Town Highway
 - Legal Trail
 - Private
 - VT State Highway
 - US Highway



Barre Town

Natural Resources

-  Wetlands
-  Ground Water Source Protection Areas
-  Ecologically Sensitive Areas
-  Floodplain 100-year
-  River/Stream
-  Lake/Pond
-  Deer Wintering Areas
-  Bear Reproduction

Roads

-  Town Highway
-  Legal Trail
-  Private
-  VT State Highway
-  US Highway

