

# *Town of Weathersfield*



## *Town Plan*



*May 1, 2017*

TOWN OF WEATHRSFIELD  
ADOPTED MAY 1, 2017

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## **INTRODUCTION**

### **1.1 Historical Background**

Town planning is not a new function for the Town of Weathersfield. During the last 244 years, there have been many times when conditions beyond the control of local government have made it necessary for voters to study the problems involved and to take corrective action.

The eleven men who attended the first Weathersfield Town Meeting at the home of Gershom Tuttle in 1772 were not Vermonters; they were subjects of a British king and residents of Cumberland County, New York. The men of Weathersfield maintained their loyalty to the Province of New York through the violent times when the Green Mountain Boys were taking drastic action against all New Yorkers and when Tom Chittenden, the Allens, and the Fays were fomenting interest in an independent state. Under the leadership of Hilkiah Grout, the Town refused to send delegates to the organizing conventions at Dorset and Westminster and even to the Constitutional Convention at Windsor in 1777. Weathersfield sent letters to these conventions that expressed their New York sentiments in firm and defiant language.

But when the formation of the State of Vermont became a fact, the men of Weathersfield recognized the times had changed and that they were in an untenable position. They studied the facts and held a meeting at which the Town of Weathersfield was reorganized under Vermont law and they elected a representative to the first General Assembly. Hilkiah Grout was a dissenter to the last. He lost his position as Captain of the Militia and also lost all Town offices that he held - except that of Sealer of Leather.

A time of decision again arrived during the early 1800s when a rush of new arrivals into the Town, plus the freshet of 1811, created a state of confusion and disorder beyond the control of local government. Demand for the relocation of schools and highways was so great, and so contradictory, that the Selectmen lost control over local government and the maintenance of Town records and finances became chaotic. Many inhabitants signed petitions to have the Windsor County Court assume authority over the Town.

The voters of Weathersfield solved their difficulties by appointing planning committees under the leadership of William Jarvis. These committees resurveyed the school districts and the highway districts and recommended sites for bridges. They also reorganized the Town's system of maintaining records and bookkeeping. Some people were hurt, but the majority ruled and the Town was soon back in step with the times.

There were other times of decision. The controversy between the eastern and western sections of the Town over the location of the meeting house raged for many years before a more equal distribution of population made possible the compromise to locate the meeting house at the Center. At later dates, the consolidation of the school districts and the highway

districts into single units again called for planning committees and decisions by the voters. The final decisions were always for the betterment of the Town.

We have again reached a time of decision. We must try to look into the future and to plan the way in which we will meet the changing times. We cannot restore the pristine wilderness through which Major Hawks drove over the Crown Point Road and we would not wish to. But we do not want to have our Town take on the appearance of urban sprawl. Neither do we wish to suffer the calamity of overdevelopment that has been visited on other parts of Vermont in recent years.

We must make a plan that will conform to the present conditions and still maintain the rural character of our Town. We must also remember that, if we do not make this decision, someone will make it for us, and we might not be happy with the results.

In April 2002, the Town of Weathersfield mailed a planning survey, *Planning for the Future of our Town*, to its residents as an insert in the April 2002, *Weathersfield Notes*. A total of 1,459 surveys were mailed, and 122 responses were received. Additional copies of the survey were made available at the Town Office and at the Proctor Library. The survey was an effort to obtain guidance for the update of this Town Plan and was also an invitation for residents to help work on the update. Residents interested in helping with the update participated in focus groups dedicated to each chapter. In 2010, the Planning Commission held a series of five public meetings throughout the town and distributed a survey questionnaire. Members of the public submitted 183 completed questionnaires.

## **1.2 Why and How a Town Plan is Used**

A town plan encourages residents to think about different ways in which their town might change and records their ideas concerning what changes they would like and what changes they would not like. The plan also calls attention to decisions or choices that will probably have to be made and may also estimate approximate timing for these decisions.

A town plan is a guiding document that may be very useful to the residents and town officials who are trying to make sound decisions. It provides a carefully thought-out framework or checklist for analyzing problems and proposed solutions. It may be amended at any time and requires periodic re-adoption under 24 V.S.A. §4387.

A town plan gives the people more power over matters that affect the nature of the town - including such matters as appearance, crowding, and taxes. This is due to the fact that the State government must base some of its decisions on the plan of the town involved [for example: requests for development permits under Act 250]. The highway department, Army Corps of Engineers, and public utilities will also find it more difficult to ignore the peoples' wishes when these wishes are publicly recorded in an official town plan.

A town plan increases the likelihood that a town will be what the majority of its residents want it to be. The probability of this outcome is further improved by the adoption and

enforcement of detailed regulations that clearly address the most common activities and uses that may occur within the town. Where general references are made in this plan to site specific constraints and other such development standards, the reader is urged to consult the appropriate implementation document - such as the zoning bylaws, subdivision regulations, town ordinances, and state laws and regulations.

Two types of detailed regulations are zoning bylaws and subdivision regulations. Well thought-out zoning bylaws are designed to protect the health, safety, and welfare of the community. Subdivision regulations provide assurances of the suitable layout of lots to minimize negative impact on surrounding landowners, on taxes, and on the environment; provide development standards for roads and utilities; assure that the burden of cost falls to the developer; and establish a process of negotiation between the developer and planning commission for determining the manner by which the town's policies and concerns may best be satisfied.

1.2.1 Vermont law [24 V.S.A. § 4385] specifies that a town plan shall be adopted by vote of the selectmen after properly-warned public hearings. Vermont law [24 V.S.A. § 4384] also provides for amendments to a town plan to be submitted by individuals or petition. The Weathersfield Town Plan was originally adopted on August 27, 1973.

1.2.2 Zoning and subdivision regulations do not automatically follow adoption of a town plan. The Weathersfield permanent Zoning Bylaws were first adopted by the voters on March 5, 1974, and the Subdivision Regulations were adopted by the voters on March 7, 1989. Both have been amended over the years. As of 2016, Vermont law [24 V.S.A. § 4442(c)] permits the adoption of zoning and subdivision regulations by the selectboard. A petition from 5 % of the voters in a town may delay the effect of a bylaw pending vote by Australian ballot at a town meeting [24 V.S.A § 4442(d)].

1.2.3 All planning should provide for the appropriate development of lands and resources in existing towns, villages, and hamlets. These mutually dependent communities should protect residential, agricultural, and other resources by cooperating to draft and enact regulatory mechanisms that minimize, prevent, or eliminate undesirable development patterns. One answer to this challenge lies in establishing cooperative and coordinated planning efforts at federal, state, and regional levels.

### **1.3 What is in a Town Plan?**

Vermont law [24 V.S.A. § 4382] states the following as of 2016:

“(a) A plan for a municipality may be consistent with the goals established in section 4302 of this title and compatible with approved plans of other municipalities in the region and with the regional plan and shall include the following:

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- (1) A statement of objectives, policies and programs of the municipality to guide the future growth and development of land, public services and facilities, and to protect the environment;
- (2) A land use plan, consisting of a map and statement of present and future land uses, indicating those areas proposed for forests, recreation, agriculture (using the agricultural lands identification process established in 6 V.S.A. § 8), residence, commerce, industry, public and semi-public uses, and open spaces reserved for flood plain, wetland protection, or other conservation purposes; and setting forth the present and prospective locations, amount, intensity and character of such land uses and the appropriate timing or sequence of land development activities in relation to the provision of necessary community facilities and service;
- (3) A transportation plan, consisting of a map and statement of present and proposed transportation and circulation facilities showing existing and proposed highways and streets by type and character of improvement, and - where pertinent - parking facilities, transit routes, terminals, bicycle paths and trails, scenic roads, airports, railroads and port facilities, and other similar facilities or uses, with indications of priority of need;
- (4) A utility and facility plan, consisting of a map and statement of present and prospective community facilities and public utilities showing existing and proposed educational, recreational and other public sites, buildings and facilities, including hospitals, libraries, power generating plants and transmission lines, water supply, sewage disposal, refuse disposal, storm drainage and other similar facilities and activities, and recommendations to meet future needs for community facilities and services, with indications of priority of need, costs, and method of financing;
- (5) A statement of policies on the preservation of rare and irreplaceable natural areas, scenic and historic features, and resources;
- (6) An educational facilities plan consisting of a map and statement of present and projected uses and the local public school system;
- (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, areas, and the region developed under this title;
- (9) An energy plan, including an analysis of energy resources, needs, scarcities, costs and problems within the municipality, a statement of



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policy on the conservation of energy, including programs, such as thermal integrity standards for buildings, to implement that policy, a statement of policy on the development of renewable energy resources, a statement of policy on patterns and densities of land use likely to result in conservation of energy;

(10) A housing element that shall include a recommended program for addressing low and moderate income persons' housing needs as identified by the regional planning commission pursuant to subdivision 4348a(a)(9) of this title. The program should account for permitted accessory dwelling units, as defined in subdivision 4412(1)(E) of this title, which provide affordable housing.

(b) The maps called for by this section may be incorporated on one or more maps, and may be referred to in each separate statement called for by this section.

(c) Where appropriate, and to further the purposes of subsection 4302(b) of this title, a municipal plan shall be based upon inventories, studies, and analyses of current trends and shall consider the probable social and economic consequences of the proposed plan. Such studies may consider or contain, but not be limited to:

(1) population characteristics and distribution, including income and employment;

(2) the existing and projected housing needs by amount, type, and location for all economic groups within the municipality and the region;

(3) existing and estimated patterns and rates of growth in the various land use classifications and desired patterns and rates of growth in terms of the community's ability to finance and provide public facilities and services.

(d) Where appropriate, a municipal plan may provide for the use of 'transit passes' or other evidence of reduced demand for parking spaces in lieu of parking spaces."

While the Weathersfield Town Plan follows this outline fairly closely, it places emphasis on land use based on the belief that proper land use most directly affects the Town's ability to achieve its goals.

## **1.4 Goals**

1.4.1 Preservation of pleasant living conditions.

1.4.2 Maintenance of reasonable taxes.

1.4.3 Provide for future growth without compromising the values and lessons of the past. Each chapter of the Town Plan contains more detailed goals and recommendations.

## **1.5 Implementation Procedures**

Implementation of the Town Plan is as follows:

1.5.1 As described in more detail in Section 1.2.2 above, the Town has adopted comprehensive Zoning Regulations, which are frequently reviewed and revised by the Planning Commission. Amendments are periodically submitted for approval by the Selectboard. The Town also has adopted Subdivision Regulations, which address problems that could arise from uncontrolled subdivision development and burden taxpayers with unexpected expenses for Town services. Subdivision Regulations are subject to periodic review by the Planning Commission and approval by the Selectboard. Amendments to both Zoning Bylaws and Subdivision regulations may also be proposed by petition of voters, as described in more detail in Section 1.2.2 above.

1.5.2 Ongoing capacity studies are required to avoid overloading of Town facilities. Capital budget programs project such expansions of Town facilities.

1.5.3 The Town Conservation Commission has an inventory of historic sites, scenic areas, deer yards, land with conservation easements, prime farm land, streams, wetlands, and rare species and their habitats.

1.5.4 The Natural Heritage Inventory within the Wildlife Diversity Program of the Vermont Fish and Wildlife Department provides ongoing inventories of wildlife areas.

1.5.5 The Town adopts ordinances to implement the Town Plan by regulating specific activities.

1.5.6 The Weathersfield Land Preservation Association, a private entity, may assist the Town with land preservation through methods such as conservation easements.

## **1.6 Relationship to Local and Regional Plans**

In order to carry out its land use planning goals, the Town of Weathersfield must evaluate the Town Plan in relation to plans of neighboring municipalities and the region. Weathersfield is bordered on the north, west, and south by the towns of Windsor, West Windsor, Cavendish, Baltimore, and Springfield. The Connecticut River forms the Town's eastern boundary with the State of New Hampshire.

### **1.6.1 Neighboring Towns**

While committed to maintaining a rural environment, Weathersfield residents depend on surrounding towns for shopping, banking, health care, employment, and recreational activities. This includes jobs and services offered in nearby New Hampshire towns such as Claremont, Charlestown, and Lebanon.

Weathersfield is surrounded by towns that are faced with varying degrees of development pressure. All of the towns have town plans and all have zoning bylaws and subdivision regulations - with the exception of the Town of Cavendish. Not one of the town plans of these surrounding towns is in conflict with the Weathersfield Town Plan.

#### 1.6.2 Southern Windsor County Region

The Southern Windsor County Regional Plan provides broad guidelines for planning, coordination, and review of the natural, cultural, social and economic features of the Southern Windsor County region. The Southern Windsor County Regional Plan, Regional Transportation Plan, and Regional Bicycling and Walking Plan are companion documents to the Weathersfield Town Plan, providing a broader framework and context for local planning efforts. The Weathersfield Town Plan supports and complements the land use and development goals of these regional planning documents.

## LAND USE

### 2.1 Historical and Present Land Uses

The array of land uses present in Weathersfield today represents the typical evolution of countless towns across New England. In its earliest days, Weathersfield consisted of widely scattered farms interspersed with the services they needed to survive (churches, tanneries, blacksmiths, and mills). Centers grew up in Ascutney on the Connecticut River and Perkinsville on the Black River. These centers functioned as typical New England villages with churches, schools, and businesses. Perkinsville was particularly robust with industries taking advantage of the water power from the Black River. The Town had thirteen separate school districts, each with its own associated neighborhoods.

The lack of a centrally located “center” for the Town became an issue in the 1800’s. Residents of Perkinsville resented having to travel the long distance and rough terrain to Ascutney to attend Town meetings - in much the same manner as residents of the Town of Windsor, our immediate neighbor to the north. While Windsor ultimately solved their division by dividing the Town into two separate municipalities, Weathersfield made an attempt to create a Town center at the height of the land on Weathersfield Center Road at almost the exact geographical center of the community. However, this didn’t last and development continued to concentrate in Perkinsville and Ascutney. Town government has been located in both centers over time, with it currently being seated in Ascutney.

The early 1960’s brought major changes to both village centers. Perkinsville was reduced by a half as a result of the US Army Corps of Engineers’ flood control project. Lower Perkinsville was completely dismantled to allow for storage of flood waters from the Black River to protect communities downstream along the Connecticut River. Ascutney was forever altered by the construction of Interstate 91. When Exit 8 was constructed, the interstate and interchange impacted both the historic and scenic characteristics of Ascutney village by bisecting the existing community. In this case, the new interchange development and subsequent upgrade of VT 131 was inconsistent with the traditional New England land use pattern of compact village centers surrounded by rural countryside, which the pre-Interstate Ascutney village typified.

The Town’s zoning bylaws should strive to reflect historic development patterns in its setback requirements and minimum lot sizes. Zoning should also provide the tools with which to preserve the existing historic settlement pattern of dense mixed uses within existing villages (Perkinsville and Ascutney) surrounded by areas of lesser density. A two-family home is a small-scale form of cluster development. Allowing two-family homes in appropriate areas may provide additional housing at reduced cost and reduced burden on the land - without changing the character of the town.

Many farms that once dominated the landscape have disappeared - as the various forms of farming became less and less profitable. Farm lands have been subdivided and developed as residences (for the most part) and the Town has become primarily a bedroom community. Commercial and industrial activities are small scale and tend to be located along the Town's major highways in the Ascutney area and at Downers. Perkinsville no longer supports the commerce and industry of its past and is primarily a concentration of residences.

Home businesses are common in Weathersfield. Bordered by larger towns, most residents are employed at and shop in the surrounding communities (Springfield, Windsor, Claremont, Charlestown, and the Upper Valley).

Weathersfield's landscape is predominantly forested. These lands provide habitat for a variety of species such as deer, bear, moose, and a multitude of birds. Forested land provides employment, recreational, and economic opportunities, as well.

Agricultural use of land is scattered throughout the Town along river valleys and other areas where the best soils and flat ground are found. For the purposes of this chapter, "agricultural lands" are defined as those areas that are used as active farms or that have the potential to support future farming activities generally categorized by the Natural Resource Conservation Service as important farmland soil units with a rating of prime agricultural soil or soils of statewide significance.

In Vermont and nation-wide, there is rising interest for locally grown food through farmers markets and other venues. Weathersfield should embrace this movement and see agriculture as both a source of local food that is integral to food security and as an important economic driver. Weathersfield should aim to protect, conserve, and expand existing agricultural businesses and lands.

Active earth resource extraction operations are located in Amsden, Weathersfield Bow, and Perkinsville.

## **2.2 Prospective Land Uses**

Weathersfield is a rural community, with forest lands and agricultural fields surrounding small villages and hamlets. Weathersfield's Zoning Bylaws allow for home occupations and/or home businesses in all districts and allow larger-scale commercial and industrial uses in certain designated areas in Town as described below. Start-up businesses may begin as a home occupation or home business, and relocate to another area in Town if they continue to grow and prosper. The Town should consider using performance standards in its zoning bylaws in place of lists of specific uses.

The following future land use categories are intended to provide guidance on future growth. As such, these future land use categories set forth the present and prospective

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location, amount, intensity, and character of such land uses and the appropriate timing or sequence of land development activities in relation to the provision of necessary community facilities and services. However, the physical characteristics of certain individual properties may be such that engineering or environmental considerations will limit further development. Therefore, the descriptions of appropriate land use and densities should be interpreted generally individual properties may have additional limitations.

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Land Use Categories and Descriptions	
Village	
Land Use Values:	
<ul style="list-style-type: none"><li>• The “Village” land use category has been given to those areas of the Town that are already “traditional village centers” (i.e. Ascutney and Perkinsville).</li><li>• These are areas where there is already the highest density of development and where the Town wishes to not only continue that density, but to encourage it.</li><li>• These are areas where development is best suited to a scale that is pedestrian-oriented. These are areas that provide a “sense of community” to the Town because of the land uses that are located within them that provide services to the outlying areas of the Town.</li></ul>	
Desired uses:	
<ul style="list-style-type: none"><li>• Primary location of:<ul style="list-style-type: none"><li>- public uses (including, but not limited to, recreation, post office, the Town and school offices),</li><li>- semi-public uses (including, but not limited to, churches),</li><li>- economic growth (e.g. small-scale retail)</li></ul></li><li>• High-density residential development as both primary and secondary land uses</li><li>• These are areas that already provide a compatible mixture of a wide variety of land uses. The Town wishes to encourage further such compatible development in these areas.</li></ul>	
Hamlet	
Land Use Values:	
<ul style="list-style-type: none"><li>• The “Hamlet” land use category has been given to those areas of the Town that are already “traditional hamlets” (i.e. Amsden and Weathersfield Bow).</li><li>• These are areas where there is already a high density of development within a small geographical area and where the Town wishes to not only continue that density, but to encourage it.</li><li>• These are areas where historically there was a mixture of public and private land uses (e.g. residential mixed with taverns, mills, lime kilns, etc.). Today the residential land uses predominate, but the Town would like to see public uses that serve the needs of the immediate hamlet.</li></ul>	
Desired uses:	
<ul style="list-style-type: none"><li>• A mix of residential, civic and small-scale commercial uses at a density that matches the current density in each of the existing hamlets</li></ul>	

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Mixed Uses - Downer's Corners

Land Use Values:

- Downers Corners is located at the intersection of two highly traveled state highways (Routes 131 and 106). Therefore it is a location that is highly accessible to a large number of passers-by. These are desirable attributes for commercial and business development.
- The Downers Corners area is limited in size due to topography and the presence of the Black River and wetlands. However, with sufficient density there is enough land to allow enough development to provide a modest number of jobs.
- Being at the intersection of two highways, Downers Corners is an excellent location to provide for travelers' services.

Desired uses:

- The existing mix and scale of commercial uses at its existing density is desirable (gas station, small retail store, insurance company, engineering company, post office, auto repair business, self-storage facility, restaurant).
- Encourage new development and re-development that mimics the existing mix, scale and density, while promoting increased walkability and access to locally produced foods.
- Public uses (e.g. park and ride)

Mixed Uses – Interchange (I-91 Exit 8)

Land Use Values:

- The Interchange area is, like Downers Corners, a location that is highly accessible to a large number of passers-by. These are desirable attributes for commercial and business development.
- The Interchange Corridor, however, should also recognize its connection to Ascutney village and provide a transition from the high-speed motorized vehicle environment in the interchange area to the slower speed, pedestrian oriented village environment along Route 5 in Ascutney
- The Interchange Area should embrace access management, pedestrian friendly, and traffic calming principles in order to encourage a higher value of land development and redevelopment which utilizes progressive design features related to building design, parking, storm water management, landscaping, signage, and lighting in the overall site design.

Desired uses:

- A higher value of land development and redevelopment, which utilizes progressive design features, related to building design, pedestrian and bicycle infrastructure, parking, storm water management, landscaping, signage, and lighting in the overall site design.
- Specifically a mixture of small businesses and offices with second floor residential uses at a moderate density that serve the needs of residents and draws tourists off the inter-state to support Weathersfield commercial and farming businesses.



<p style="text-align: center;">Light Industrial</p> <p>Land Use Values:</p> <ul style="list-style-type: none"><li>• These are areas centered around existing clusters of industrial uses (e.g. Hodgdon Brothers Salvage yard, Sheehan Lumber, Vermont Soapstone)</li></ul> <p>Desired uses:</p> <ul style="list-style-type: none"><li>• Industrial uses at a scale that is appropriate for Weathersfield, including, but not limited to, light manufacturing, sawmills, warehousing.</li></ul>
<p style="text-align: center;">Residential</p> <p>Land Use Values:</p> <ul style="list-style-type: none"><li>• These are areas that surround the village centers that are valued as areas for affordable housing, recreation, and walkable residential neighborhoods because of their proximity to the village centers and because this facilitates the traditional New England pattern of development</li></ul> <p>Desired uses:</p> <ul style="list-style-type: none"><li>• Residential uses with compatible civic and small-scale commercial uses (i.e. churches, general stores, home businesses) at a moderate density</li></ul>
<p style="text-align: center;">Rural</p> <p>Land Use Values:</p> <ul style="list-style-type: none"><li>• These are areas between the village centers that provide the Town its rural character, its recreation areas, its working landscapes and forestlands</li></ul> <p>Desired uses:</p> <ul style="list-style-type: none"><li>• Primarily detached residential, agricultural, forest and home businesses</li></ul>

Open and  
Agriculture

Land Use Values:

- These are lands best suited for farming because of their quality soils and suitable topography
- This is also an area for the preservation of the town's cultural heritage and rural character

Desired uses:

- Farming of all types including farm stands, "pick-your-own" farming operations, agri- tourism, community supported agriculture, and small- to moderate-sized food processing
- Low-density detached
- Conservation/cluster development
- Home businesses

Conservation

Land Use Values:

- Lands best suited for:
  - wildlife habitat,
  - outdoor recreation,
  - education,
  - preservation of fragile natural areas,
  - forestlands,
  - flood control management areas,
  - scenic beauty

Desired uses:

- Outdoor recreation
- Open spaces for recreation and conservation lands, paths and trails, and bodies of water for all ages and abilities
- Un-fragmented wildlife habitat

Very-low density residential and home business uses that are especially mindful of possible negative impacts to the land

## 2.3 Special Considerations

There are several important considerations within any of the land use categories above that merit special attention. These special considerations include:

2.3.1 Source Protection Areas: There are currently two private wellhead protection areas (Country Estates, old Elementary School building) mapped within the Town of Weathersfield. These areas represent the locations most susceptible to water contamination and are required, as part of the permitting process, for potable water wells by the Vermont Water Supply Division. No Town-adopted regulatory controls to protect these water sources are in effect at this time. However, property owners located within these source protection areas are encouraged to minimize land uses and activities that might contaminate these wells.

2.3.2 Scenic Resources: Important scenic resources include views of Mt. Ascutney, the Weathersfield Center Meetinghouse and Memorial Grove, as well as views from Weathersfield Center Road and Skyline Drive... as discussed in the Natural, Scenic, and Historic Resources Chapter of the Town Plan. These scenic resources are incorporated into the conservation future land use category. Development in these areas should take precautions to minimize undue adverse impacts on these highly-valued scenic resources.

2.3.3 Flood and Erosion Hazards: All development within FEMA-designated flood hazard areas is subject to the Flood Hazard Area provisions in the Town of Weathersfield Zoning Bylaws in order to mitigate inundation-related flood damage. However, the damage sustained in western Weathersfield in 2011 during Tropical Storm Irene was largely caused by erosion of the river banks and not by inundation. The Black River Corridor Plan developed by the Southern Windsor County Regional Planning Commission identifies erosion hazard areas and potential ways to address erosion threats to property. Future development must be directed away from locations that are prone to damages from both inundation and erosion.

## 2.4 Timing of Development

Weathersfield is a rural community that has experienced a slow rate of growth.

The general state of the economy appears to be the primary control on the town's growth rate. The better the economy, the greater the rate of development as people look to build newer, bigger homes; homes with more land; second homes; and businesses look for places to expand. However, when the economy has a downturn, the rate of development slows considerably.

Development can also be constrained by the lack of infrastructure as in the case of Perkinsville. Ascutney's privately owned water company has been purchased by the newly formed Ascutney Fire District #2. The Fire District is taking steps to update the infrastructure that may make it possible to increase the density of development within the Fire District.

Controlling the rate of development during good economic times becomes a necessity when its rate threatens to overwhelm the town's ability to provide services and maintain its infrastructure. Capital budgets/programs, zoning bylaws and subdivision regulations that (a) allow phasing of large projects and (b) examine impacts to the town's facilities are valuable tools the Town can employ to manage the rate of development.

To move forward in implementing the vision for villages, the Town should also apply for State of Vermont Village Center Designation for Ascutney, Perkinsville, Weathersfield Center, and Weathersfield Bow. The Village Center Designation program, enabled in Vermont Statute 24 VSA Chapter 76A, provides incentives and assistance to support village planning and revitalization efforts.

Designation would make village property owners eligible for tax credits to support rehabilitation of historic buildings, façade improvements for buildings constructed before 1983, and improvements to comply with buildings codes. Designated villages also get priority for state funding and are given priority consideration when locating state buildings.

## **2.5 Land Use Goals**

2.5.1 The Town shall preserve its traditional historic New England development pattern of compact, high-density, mixed use villages separated by rural countryside.

2.5.2 The Town shall preserve its rural character.

2.5.3 The Town shall preserve the character of its villages and hamlets.

2.5.4 The rate of development shall be limited to that which will not overwhelm the town's highway department, waste disposal facility, school, fire suppression services, or police department.

2.5.5 Promote increased opportunities for wellness, active living and healthy eating.

## **2.6 Land Use Policies**

2.6.1 Development shall be directed in accordance with the Future Land Use Map.

2.6.2 Development shall not result in undue adverse impacts on the character of the Town's villages and hamlets. "Character" of the villages and hamlets is defined by:

2.6.2.1 Small lot sizes and setbacks

2.6.2.2 Development at a scale that is pedestrian-oriented and bicycle friendly.

2.6.2.3 Traffic patterns and access management strategies that are not "pedestrian hostile"

2.6.2.4 A wide variety or mixture of uses that include public and semi-public uses, residential development as both primary and secondary uses of the land, home businesses and small scale retail uses

2.6.2.5 The obvious presence of historic buildings

2.6.2.6 A style of development that focuses foremost on buildings and people and less so on automobiles

2.6.2.7 A place where people in the community desire and are able to gather

2.6.2.8 A place residents and visitors identify as the heart of the community

2.6.3 Development shall not result in undue adverse impacts on the “rural character” of our community. The “rural character” of the community is defined by:

2.6.3.1 Gravel roads that are lined with mature trees and that are safe for walking, biking, and driving

2.6.3.2 Tree canopies over gravel roads

2.6.3.3 Stone walls that line the edge of road rights-of-way

2.6.3.4 Low traffic volume

2.6.3.5 Minimal traffic signage or lighting

2.6.3.6 Limited commercial development that is small in scale and footprint

2.6.3.7 Home Businesses

2.6.3.8 Dark night sky

2.6.3.9 Quiet

2.6.3.10 Agricultural activities

2.6.3.11 Forests

2.6.3.12 Recreational opportunities

2.6.4 Zoning and subdivision regulations will be the primary tools for directing, guiding, and/or regulating development within the town.

2.6.5 Development will not have an undue adverse impact on the town’s most significant natural, scenic, or historic resources. The Conservation Commission is charged with advising applicants, the zoning board, and the planning commission when development is proposed that may have an adverse impact on the town’s significant natural, scenic, or historic resources.

2.6.6 The Town will carefully guide development that is proposed on land areas of special consideration:

2.6.6.1 Source Protection Areas

2.6.6.2 Scenic Resources

2.6.6.3 Flood and Fluvial Erosion Hazard Area

2.6.7 The Town will apply for Village Center Designation for Ascutney and Perkinsville.

## **2.7 Land Use Recommendations**

2.7.1 Plan for water and sewer infrastructure that will:

2.7.1.1 allow increased mixed use and density of development in and near the village centers; and

2.7.1.2 support existing densities in the village centers.

2.7.2 Identify erosion-prone areas and develop appropriate strategies to minimize risk from erosion hazards.

2.7.3 The Conservation Commission is charged with the following activities:

2.7.3.1 inventorying the Town's significant natural, scenic, and historic resources

2.7.3.2 developing plans and strategies for protection, preservation, and/or conservation of the town's significant natural, scenic, and historic resources along with agricultural areas and open spaces.

2.7.4 The Town will adopt NFIP standards to regulate development that is proposed for flood-prone areas so that damages from inundation can be minimized and so that property owners are eligible for flood insurance.

2.7.5 The Town will develop fluvial erosion hazard mitigation strategies to:

2.7.5.1 regulate development that is proposed in areas prone to damage from fluvial erosion;

2.7.5.2 protect town-owned infrastructure from fluvial erosion damages.

2.7.6 The Town will adopt "conservation design" subdivision regulations.

2.7.7 The Town will adopt outdoor lighting standards that preserve the dark night sky.

2.7.8 The Town will promote land usage that increases access to locally produced foods.

2.7.9 The Town will promote active living through the publicizing of recreational opportunities and resources.

2.7.10 The Town will conserve the land and other environmental resources critical to the long-term success of the local agricultural economy.

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- 2.7.11 The Town will maintain and enhance the local agricultural sector and its capacity to respond to market trends in agriculture.
- 2.7.12 The Town will build public support for the community's farms and farmers and will promote, protect, and assist agriculture as a functional sector of the local economy.
- 2.7.13 The Town will enact zoning to conserve farmland and support diversified farming businesses, including agri-tourism, food hub development, farm stands, and country stores.
- 2.7.14 The Town will apply for Village Center Designation for Ascutney, Perkinsville, Weathersfield Center, and Weathersfield Bow.



## **TRANSPORTATION**

The need to move persons, goods, and services within and through the community drives the need for safe and efficient transportation systems or networks. Since the automobile reigns supreme in our culture, roads are the dominant component of the existing system. However; walking, bicycling, buses, trains, and airplanes contribute. Boat traffic is limited to recreational use in Weathersfield.

### **3.1 Road System**

#### **3.1.1 Introduction**

The safety and efficiency of traffic circulation are essential to the health and vitality of the town and to the safety and satisfaction of its travelers and taxpayers. The efficiency and economy of the highway maintenance program are also very important to the taxpayers. The town should strive to maximize:

- (a) the safety and efficiency of traffic circulation through its transportation network, and
- (b) the cost efficiency of its highway maintenance program.

The safety and efficiency of traffic circulation through the Town is a function of the layout, construction, and maintenance of the roads and the volume of traffic traveling on those roads. At the present time, there are 124.835 miles of public highways in Weathersfield (Table 3A). The majority of those highways are gravel-surface (79.3%), a characteristic many residents value and wish to retain.

#### **3.1.2 Highway Layout**

When highways are laid out, they are done so based upon the perceived needs of those who plan to travel them. Right-of-way width, travel lane and shoulder widths, access controls, speed limits, and other highway characteristics vary - based upon the function of the road. Various agencies use different means of categorizing roads based upon their function. Thus Interstate 91 is categorized differently than US 5 or Weathersfield Center Road. The layout (or course or path) of the existing highways in Weathersfield represents the evolution of transportation needs that began prior to the establishment of the Town in 1761. Existing road layouts may occasionally be changed to address poor safety conditions (e.g. removing a dangerous curve) or when environmental conditions force a change in the road's layout. Over time, new roads are also added to the network through private development.

The efficiency of an existing road network changes as more and more vehicles use it. Longer wait-times at intersections (technically referred to as "Level of Service"), higher volumes of traffic on narrow, winding "back roads," and increasing numbers of access points along the highways reduce the efficiency and safety of the road network. Local highways evolve into

“collector roads” as more and more drivers seek to find the quickest route to their destinations. Stoughton Pond Road, Goulden Ridge Road, and Baltimore Road are designated “local roads” that are now functioning more as collectors. Thrasher Road, Gird Lot Road, and Wellwood Orchard Road are also examples of this evolution. The Town must address this situation as it develops. Accommodations may include new signage, signalization, access management, and may even progress to rebuilding or upgrading the road base, road paving, and widening - if the traffic demand warrants such actions. A general rule of thumb is that when the Average Annual Daily Traffic (AADT) exceeds 400 (on a gravel road), it is time to consider paving the road.

The traffic data shown in Table 3B indicates that, for many of the roads surveyed, traffic volume remains fairly constant - with the exception of Thrasher Road, which has seen a 44% increase in AADT between 2007 and 2009. Additional data is needed for the roads mentioned above to establish trends and determine appropriate courses of action, if necessary.

Table 3C shows projections for Daily Traffic Counts on selected roads.

The Weathersfield Police Department reports that high crash locations exist on Weathersfield Center Road, VT Route 5, Piper Road, Gulf Road (west side), Interstate 91 / Exit 8, and at Reservoir Road at Butterfield Hill. Most accidents result in minor injuries and are primarily due to operator error and / or weather-related road conditions.

Data on highway crashes (Table 3D) show that, of town roads, the Weathersfield Center Road has seen the highest number of crashes in between 2005 and 2009. The Center Road is known for its speeding traffic - no doubt because it is a paved road that is fairly straight over most of its course.

Thrasher Road has become a “cut-through” for traffic seeking the shortest distance between Route 5 and Route 131. Speed on this narrow, winding, gravel-surfaced road has contributed to the accidents there. Perhaps the town will have to invest in additional law enforcement to allow for greater enforcement of the speed limits in Town. The intersection of Wellwood Orchard Road and the Center Road was modified in 2009 under a High Risk Rural Roads grant that allowed raising the level of Wellwood Orchard Road to the level of the Center Road. It is hoped that this change will reduce accidents at that intersection. The High Risk Rural Roads program also assisted with changes in the Gravelin Road/Center Road intersection and indicated the importance of the role of brush-cutting and increases in sight distances in the quest for safer roads and intersections.

The Exit 8 Park and Ride facility at I-91 Exit 8 in Ascutney offers commuters an opportunity to ride the bus to the Upper Valley. It is served by the Current public transportation provider. The facility was remodeled in 2008; however, it is often filled to capacity each day and bus circulation could be improved. The Town recently completed construction of a municipally-owned park and ride lot on the west side of VT Route 106, just north of Route 131 at Downer’s Corners.

The layout of new highways usually comes with the creation of new lots for development. In Weathersfield, new development is generally for residential purposes. New private highways have an impact on the existing network into which they feed additional traffic. Therefore, the layout of these roads must be viewed not only in terms of the lots they will serve, but also in the context of the neighborhood through which the resulting traffic will travel in order to preserve the safety and efficiency of the existing town highway network. The point at which the new road joins an existing road is important in terms of traffic circulation. Dead-end highways are inefficient in terms of traffic circulation and tend to isolate neighborhoods while discouraging walking and bicycling. At some point in the future, some areas in the town will probably invest in localized municipal water and wastewater collection systems, which are best laid out along roads that interconnect, rather than along a system of multiple dead-end highways. Roads extending into large areas of undeveloped land tend to fragment existing wildlife habitats or corridors and set the stage for still more development. This new development, in turn, increases pressure on existing roads - roads that may not be suitable for higher traffic volumes. Extremely steep roads or long dead-end roads pose real challenges to emergency vehicle and fire department access.

Roads that are winding and twisting or are very narrow impose a natural limit on the speed of traffic; while straight, relatively level highways encourage higher speeds. The town should develop criteria (outside of the construction standards) for the Select Board to use when deciding whether or not to accept any new private roadways.

The term “ancient roads” was coined in 2006 to describe those roads that were legally laid out by a town and that have disappeared into the landscape from lack of use. Under Vermont law, these rights-of-way still belong to the town, even though there may remain little on-the-ground physical evidence of them. Because of the problems that this situation caused in real estate title searches, the State legislature directed all towns in Vermont to research their “ancient roads” and place them on their highway maps no later than 2015 (Act 178). Any legal right-of-way not shown on a town’s highway map by that date will be “given up.” The Town of Weathersfield has identified several of these roads and, in February 2010, had them placed on the town’s official highway map. By statute, these roads are automatically Class 4 roads. The town may change its classification as it so chooses by following the process in Title 19 of the Vermont statutes. The town will have to decide, based on some as-yet-undetermined criteria, which of its ancient roads shall remain as Class 4 roads and which should become trails. The town’s Class 4 Highway Policy states that Class 4 roads can be improved and maintained by abutting landowners who wish to use them as access to their property. This means that Class 4 roads could be improved to provide access to new lots and thus more new development.....but such improvements require Selectboard and Highway Department approvals.

An Official Map (24 VSA, Chapter 117, §4421) is a powerful tool to help towns manage their transportation network. An Official Map will show future street alignments, planned trails, sites reserved for public buildings, areas reserved for stormwater and flood control, and offers the town a better chance for a “well-planned network of roads and other corridors.” As of 2010, the town does not have an Official Map.

### 3.1.3 Road Construction

The long-term durability of a road is largely influenced by its initial construction. Critical components include the nature and preparation of the roadbed, the slope of the road, the materials with which the road is constructed, and the manner in which drainage on and beside the road is handled (as in crowning and culverts). Stream crossings require either culverts or bridges - depending upon the size of the drainage to be crossed. Bridges must be sized and constructed properly to meet the needs of vehicles. Weight limits for bridges with a span greater than 20-ft. are established by the Vermont Agency of Transportation. Lavigne Bridge across Mill Brook off Route 131 and Hidden Glen Bridge across the same brook (but off U.S. Route 5) are both wood-decked bridges and are weight-restricted by state statutes, not legally allowing passage of fire trucks and other larger motor vehicles – a situation that has recently become a matter of concern for the property owners on the far side of the Brook. The Murray Flats Bridge, a similar wooden deck bridge which crossed the North Branch of the Black River and which was seriously damaged in 2008 when an overweight gravel truck crossed it, is a similar matter. The Upper Falls Covered Bridge, one of the oldest in the State of Vermont, was rehabilitated under a federal grant in 2008. The Town is grateful to late Senator Jim Jeffords who obtained the grant and who was instrumental in ensuring that the project was completed. The bridges on Tarbell Hill Road and Lavigne Road were repaired in 2004.

Construction standards for new town-owned and new private highways are regulated by the town's "Highway and Bridge Policy" which is established by the Select Board. New private highways are also regulated by the town's subdivision regulations and zoning bylaws.

### 3.1.4 Road Maintenance

The responsibility of maintaining a road varies depending upon the parties owning the road. Thus, state-owned highways are maintained by the state while town-owned highways are maintained by the town as a function of the road's classification. Town-owned highways or roads are classified by state statute into five classes: Class 1, 2, 3, 4 and Trails. Weathersfield has no Class 1 highways (highways which are owned by the State, but maintained by the town). Class 2 town highways include Weathersfield Center Road, Reservoir Road, Plains Road, Piper Road, Stoughton Pond Road, Airport Road and Baltimore Road. The remaining roads are Class 3 and 4. Class 4 roads receive maintenance only to existing bridges and culverts, and trails receive only that Town maintenance that the Select Board establishes as appropriate. Annual state highway aid is distributed to communities based on the number of miles of Class 1, 2, and 3 roads that are in their community. No state aid is given for Class 4 roads or trails. State highway aid has been level funded for the past several years, which has made it difficult for towns to keep up with routine preventative maintenance.

Road maintenance includes repairs to the traveled surface (whether gravel or pavement), the edges of the right-of-way (ditches, brush-cutting, culverts, etc.) and bridge or culvert maintenance. Ditch creation/maintenance and road crowning help reduce road damage by controlling the passage of water (from rain fall and from melting snow). Brush-cutting increases visibility on the roads and at road intersections. Bridges and culverts must be inspected and maintained regularly to avoid costly repairs.

Snow removal and sand/salt application on all roads in winter and dust suppression on gravel roads in dry seasons are also regular maintenance activities for which the town must be prepared - if the safety and efficiency of its highway system are to be maintained or improved.

A regular maintenance program is the most efficient means of maintaining the town's highways, bridges, and culverts. Paved roads deteriorate very quickly once they have surpassed 75% of their service life. Repair costs escalate dramatically after that point. Roads in good shape cost less to maintain than roads in poor shape. The town should use normally-budgeted highway funds for routine and preventative maintenance and should also seek special funds to rehabilitate roads that are in poor condition.

The cost of maintaining the town's roads is covered in the Highway Fund. Annually, the Select Board develops a proposed highway budget, which is presented to the Town Meeting for adoption. This budget includes not only the annual maintenance of all town highways, but also snow removal, the operation of the Town's sand and gravel extraction sites, maintenance of town-owned motor vehicles, and the capital debt service for Town-owned or leased highway maintenance apparatus. Since 2001, the Town Meeting has adopted this budget as a separate vote, and the Select Board has established a separate highway tax to comply with the requirements of Title 19 of the Vermont Statutes Annotated, which stipulates that tax monies raised for highway use may not be applied to any other purpose. All highway fund surpluses and deficits remain within the Highway Fund, which is audited annually. Any accumulated 'undesignated fund balance' may be appropriated by the Town Meeting for a highway purpose.

In 2003, the town, with the assistance of the Southern Windsor County Regional Planning Commission, completed a comprehensive bridge and culvert inventory. This inventory included not only the location established by the Global Positioning System, but also length, diameter, and condition of all culverts. Regular updating of this data and re-adoption by the Select Board at least every five years is required to obtain State and Federal funding and reduces the match requirement for State and Federal grants from 20% to 10%. Bridge and culvert data may be managed through the Agency of Transportation "Vermont Online Bridge and Culvert Inventory" (VOBCIT).

In 2009, again with the aid of the Regional Planning Commission, the Town implemented a computerized "Road Surface Management System" (RSMS), inventorying all Town-owned highways. The data collected included length, road surface, geometry, and other important

construction data, which, when fully implemented, will facilitate the development of a long-range highway maintenance and construction program.

These programs (RSMS and VOBCIT) may be used to identify and rank needed road improvements. Limited highway improvement funding demands that the Town invest in some type of management system to enable cost-effective decisions.

Tables 3E, 3F, 3G show the conditions of the Class 2 and 3 highways, bridges, and culverts in Weathersfield. The majority of town-owned paved roads are in good to excellent condition, while the majority of the unpaved town-owned roads are in fair to good condition.

Based on the 2008 RSMS, the paved roads in greatest need of repair include (in order of worst first) Amsden School, Maple, Airport, and Kendricks Corner Roads. The worst unpaved roads include Branch Brook, Jason Smith, Cady Hill, Old Center, and Quarry Roads. By 2017, all of these had been repaired.

Townspersons have expressed a strong desire to preserve the town's gravel roads, as these roads lend a great deal to the rural character of the community - a trait the town highly values. However, maintenance of gravel roads requires a reliable source of gravel and gravel is becoming more and more difficult to acquire. The Town no longer owns a source of gravel and now must compete with other towns to purchase specified quality road gravel. The greater the distance the town must travel to acquire gravel, the more it will cost. As demand for gravel increases, so too will the purchase price.

### 3.1.5 Exit 8 Interchange

I-91 Exit 8 in Weathersfield intersects with VT 131 just west of Ascutney Village. Moving east from the interchange, VT 131 has a four-lane cross-section with wide (8'-10') shoulders and a narrow grass median between Cemetery Road and US 5. West of the interchange, VT 131 has a standard two-lane cross-section with 2'-3' shoulders. Exclusive turning lanes are provided on VT 131 for access onto I- 91 northbound and for eastbound traffic on VT 131 making a left turn onto US 5 at the traffic lights.

### 3.1.6 Traffic Volumes

Figure 3-A shows 2007 Average Annual Daily Traffic Volumes (AADT) in the area around Exit 8. As the figure shows, the majority of traffic is headed to and from points north on I-91 and to and from points east on VT 131. Traffic volumes on VT 131 east of Exit 8 (9,300 vehicles per day) are nearly double the volumes on the west side of Exit 8 (5,400 vehicles per day). These traffic volumes are representative of the important use of these roads for connecting Claremont (and Ascutney village) to the Upper Valley for jobs, medical, and shopping trips. Additionally, VT 131 provides an important connection between Ascutney/Weathersfield and Claremont for shopping and for other activities.

One additional safety concern that has been raised is the issue of extended parking of trucks on the shoulders of VT east of Exit 8. There is concern related to these trucks impacting safety for vehicles and pedestrians exiting businesses along the corridor. The trucks often park on the shoulder because there are insufficient truck parking and loading facilities on-site. These parked trucks significantly reduce sight distances for vehicles and pedestrians leaving adjacent land uses. Since VT 131 is under state jurisdiction, the Agency of Transportation and Department of Safety have ultimate responsibility for enforcement over violations along the route.

However, the town could investigate the possibility of taking over control of VT 131 (by converting it to a Class 1 Town Highway) that would provide the town more flexibility over the corridor. There are, however, a number of potential negative consequences to taking over control of the road (i.e. financial, public safety, administrative, etc.) that should be thoroughly investigated before pursuing this option.

### 3.1.7 VT 131 Cross-Section

One of the main issues related to the VT 131 corridor that was raised by town officials and local residents is the negative aesthetic and safety issues resulting from the wide 4-lane cross-section on VT 131 east of the interchange. Not only does the wide road make it difficult for pedestrian crossings, it also contributes to higher speeds and, ultimately, less safe conditions. A general approximation of the capacity of a two-lane highway is 2,900 vehicles per hour. Generally speaking, the peak hour volume on VT 131 east of I-91 is approximately 1,000 vehicles per hour, well under the capacity of a two-lane highway, much less the current four-lane highway. From a traffic safety standpoint, the 4-lane section and wide shoulders currently found on VT 131 do allow additional maneuvering room for turning vehicles, but it also encourages higher speeds and provides a larger barrier for pedestrian crossings. Rather than the 4-lane section with wide shoulders, the provision of adequate left- and right-turn lanes as needed would allow for the traffic to flow relatively freely on VT 131, while gaining the aesthetic and speed-reduction benefits of a narrowed roadway.

Several different roadway cross-sections were examined for application to the VT 131 corridor:

Alternative 1: Narrow to a 2-lane cross-section with a central two-way left-turn lane, and narrowed shoulders. Total pavement width reduced from approximately 64 feet to 44 feet.

Alternative 2: Narrow to a 2-lane cross-section with a landscaped median, left turn lane turn pockets, narrowed shoulders, and sidewalks. Total pavement width reduced from approximately 64 feet to 44 feet (not including sidewalks).

Alternative 3: Add a central landscaped median, left turn lane turn pockets, and narrowed shoulders. Total pavement width increased from approximately 64 feet to 80 feet.

### 3.1.8 VT 131/US 5 Intersection

As the safety analysis demonstrated, the US 5/VT 131 intersection is part of a designated High Crash Location road segment and the crash records at the intersection appear to indicate high speeds and inattentive drivers. Additionally, the town's K-8 school population is now concentrated in Ascutney Village, which will very likely result in an increased number of very young school children attempting to navigate across VT 131. The high crash rates at this intersection, combined with the lack of a signalized pedestrian crossing and excessive pavement widths, are significant concerns and prompt an examination of several improvements for the intersection - which are presented below.

### 3.1.9 Exit 8 Park & Ride

VTrans has made improvements to the Exit 8 Park and Ride which included paving and expanding the lot to accommodate 63 vehicles, new lighting and pavement markings, a small bus shelter, and minor landscaping enhancements. The lot was close to capacity as soon as the expansion was completed. The land ownership and topography around the site limit any significant further expansions of the lot. The Town should coordinate with SWCRPC, VTrans, the City of Claremont, and the New Hampshire Department of Transportation (NHDOT) to identify a suitable new park and ride lot site in either Claremont or Weathersfield to help alleviate this demand. As access into and out of the Park and Ride Lot will likely increase with the lot's expansion, traffic volumes should be monitored to determine whether any potential adverse safety conditions - such as insufficient sight distances, excessive queuing, or excessive delays for vehicles leaving the lot exist.

### 3.1.10 Policy Items for the Exit 8 Interstate Interchange Corridor

3.1.10.1 Consider developing an Official Map to delineate and assist in implementing the proposed access road network.

3.1.10.2 To gain more control over improvements to and enforcement of traffic regulations VT 131, the town should work with VTrans, the Vermont League of Cities and Towns, and the SWCRPC to investigate the possibility of taking control of VT 131 (by converting to a Class 1 Town Highway) which would provide the Town more flexibility over the corridor. There are, however, a number of potential negative consequences to taking control of the road (i.e. financial, public safety, administrative, etc.) that should be thoroughly investigated before pursuing this option.

3.1.10.3 Work with the SWCRPC and VTrans to investigate the potential for narrowing VT 131 between Exit 8 and the Connecticut River to two lanes with a landscaped median, designated left-turn pockets, sidewalks, and adequate shoulders to safely accommodate bicycle travel. Included in this evaluation should be improvements to the US 5/VT 131 intersection to identify ways to improve safety



(part of a High Crash Location segment), improve efficiency, reduce overall paved area, reduce delay, and improve pedestrian accessibility.

3.1.10.4 Monitor traffic entering and exiting the Exit 8 Park & Ride lot once the expansion is complete to identify whether any potential adverse safety conditions exist, such as insufficient sight distances, excessive queuing, or excessive delays for vehicles leaving the lot.

3.1.10.5 The town should coordinate with SWCRPC, VTrans, Claremont, and NHDOT to identify a suitable new park and ride lot site in either Claremont or Weathersfield.

### **3.2 Access and Driveways**

Managing access to highways near interchanges has many benefits: improving safety conditions, improving access to properties, reducing congestion, postponing or preventing expensive highway improvements, and promoting desirable land use patterns. The basic principle behind access management is to limit the number of conflict points along a road. This may be accomplished by regulating land uses, separating through traffic from turning traffic, providing internal and cross connections, providing frontage roads, and carefully locating signals and access points. In general, good subdivision and site layout should adhere to the following guidelines:

3.2.1 Limit public road access to no more than one driveway per parcel (additional access points could be authorized by the Zoning Board of Adjustment on a case-by-case basis);

3.2.2 Provide adequate spacing between adjacent driveways, intersections, and interchanges per the minimum distances prescribed in Table 3H:

3.2.3 Wherever possible, driveways should be shared between adjacent parcels and/or internal connections should be provided to enhance connectivity between parcels.

3.2.4 Stopping sight distances equal to or greater than those shown below in Table 3I should be provided in both directions for all driveways entering onto a public highway - unless otherwise approved by VTrans (for access onto State roads) or the Town of Weathersfield (for access onto town roads).

3.2.5 The design and construction of all new and modified driveways onto VT 131 or US 5 should conform to the VTrans Standard Drawing B-71, Standards for Residential and Commercial Drives.

### **3.3 Bicycle and Pedestrian Facilities**

At the present time, there are no bicycle or pedestrian facilities in the Town of Weathersfield and there appears to be limited support for their existence. However, these facilities would be a benefit to many residents and visitors.

Sidewalks in Ascutney could provide safe walking for the residents of the Country Estates Mobile Home Park, the students of the Weathersfield School, and the campers at Running Bear Campground. Bike paths could link the campers at Crown Point Campground with Perkinsville Village, while sidewalks at Downers could link the businesses on each of the corners with each other. Many pedestrians, and in increasing numbers, walk on Thrasher Road from both the Route 5 end and the Route 131. There are many bicyclists on Routes 5, 106, and 131 in the warm months of the year. Bicycle travel lanes (and painted chevron markings) on these highways would greatly increase their safety and enjoyment.

The town was involved with a Safe Routes to School Non-infrastructure grant in 2009-2010 which raised discussion of the idea of sidewalks in Ascutney for the School's "Walk-to-School" program - but which failed to result in any pedestrian or bicycling amenities beyond a shared pedestrian lane and some signage on Schoolhouse Road and grant funding for a radar speed feedback sign on Route 5 (southbound) north of Riley Drive.

### **3.4 Public Transportation, Rail, and Air**

#### **3.4.1 Hartness State Airport**

Hartness State Airport is located primarily in the Town of Springfield, but one of its two runways extends into the Town of Weathersfield. The airport is owned by the State of Vermont. The airport's primary runway at 5,498 feet is the second longest runway in the state, following Burlington International Airport. Hartness is also served by a crosswind runway of 3,000 feet. Aircraft based on the field include 35 single engine planes, 2 multi-engine planes, 1 jet airplane, and 8 gliders. As of 2009, aircraft operations average 76 per week (down from 179 per week in 1998), 93% of which are general aviation, 5% are air taxi, and 2% are military. By 2015, monthly airport operations ranged from 56 in December to 1371 in August; the average monthly operation level was approximately 500. The airport supports medical emergency flights (both helicopter and fixed wing), on-call organ transplant flights, State Police drug enforcement operations, Springfield Police operations, Air National Guard helicopter operations, search and rescue operation of the Civil Air Patrol and State Police. Soaring clubs operate at the airport all summer and host an annual soaring competition. The facility is used for various community sponsored events. An economic impact study prepared for VTrans in 2003 states that Hartness Airport brought \$982,630 in revenue into the state's economy. A revision to the 2003 economic report is expected to be completed in 2017.

Major and minor aircraft repairs are available at the airport, as well as fuel sales, charter service, flight instruction, emergency and lifesaving flight service, and scenic airplane rides. VTrans Project Priority Report for fiscal years 2011 - 2016 includes the following projects:

2011 hazard beacon tower replacement/upgrade perimeter fencing, snow removal equipment

2012 runway safety area and obstruction study

2013 parallel taxiway – permitting

2014 runway obstruction easement acquisition

2015 construct parallel taxiway; obstruction removal

State and federal money will fund these projects at a total estimated cost of \$3,010,000.

Current use of the airport generally produces acceptable noise levels, but regular jet traffic or increased use of the airport could have a negative impact on the adjacent community.

Hartness has experienced fluctuating periods of usage over the years, and although it is not utilized to its full capacity, it remains a significant resource and economic asset to the area.

### **3.5 Other Aspects of Transportation**

Weathersfield is too sparsely populated to make a municipally -owned and operated public transportation system within the Town economically practical. Public transit is, however, available in Weathersfield via “The Current”, which is operated by Connecticut River Transit - a private non-profit organization based in Bellows Falls.

The Current operates commuter buses, rural town connectors, small town shuttles, In-Town bus or Dial- A-Ride curb-to-curb service in small buses. The Current also provides transit via volunteer drivers in their cars. Route and fare information is available at [www.crtransit.org](http://www.crtransit.org).

The former Vermont Transit Lines bus company was purchased by Greyhound Lines in 1993 and became a subsidiary line. Vermont Transit Lines remains based in Burlington, Vermont, with major terminals in White River Junction, Montreal, and Boston. Service is primarily provided along the Interstate 89 corridor and then on to Boston.

K – 8 students attending the Weathersfield School in Ascutney are transported by school buses that are owned by a private, third party that is contracted through the Agency of Education and the WSESU. Students attending high school in Springfield and Windsor are also transported by buses from both communities from designated pick-up points in the community.

Students must get to the designated pick-up points on their own. Safe transportation of students to the high schools is an important goal of the Town. All other high school students must provide their own transportation. Recent legislative changes may place control of school transportation with the Supervisory Unions - away from local control.

Taxi service is available from surrounding towns, though it is expensive because of the distance. A local business provides shuttle service to Hartford, Boston, and Manchester airports. Vermont Transit Lines, United Parcel Service, Federal Express, and the major trucking firms all supply Weathersfield with parcel and freight transportation service. Rail freight service is available in Chester and Windsor and Amtrak provides rail passenger service between Washington, D.C., and St. Albans with stops in Bellows Falls, Windsor, White River Junction, and Claremont, NH. Air service is available from commercial lines in Rutland, VT and Lebanon and Keene, NH to major connecting points such as Burlington, Hartford, Boston, Albany, and New York City. Private and business planes also use these local airports, plus a small one in Claremont, NH.

Weathersfield 9-12 grade students may attend any public, private, or independent school – in-state or out-of-state – of their choice, Parents of high school students must arrange their child’s transportation to school, unless that school provides a means of pick up / drop off through designated stops.

Scenic Byway Route 5 is part of the state-designated Connecticut River Scenic Byway system. The Connecticut River Scenic Byway is the only Byway in VT to receive National Scenic Byway designation. The Connecticut River Tri-State Scenic Byway Corridor Management Plan includes a list of major scenic features, including:

- (a) Connecticut River
- (b) Mt. Ascutney “...dominates the landscape of the entire byway corridor in the region, and acts as a focal point for travelers on Routes 5 and 44.”
- (c) Agricultural land between Springfield & Weathersfield Bow
- (d) Historic villages including Weathersfield Bow

A recommendation included in the Management Plan states: “Use of landscape assessment to focus on those parts of the corridor that have very high scenic value, and lack adequate protection from detrimental development.” [i.e. the south face of Mt. Ascutney]

In 2010, the Town worked with the Upper Valley Land Trust to purchase 350± acres on the south-facing slope of Mt. Ascutney. Funding for the purchase was provided in part through a Scenic Byway grant.

### **3.6 Goals**

- 3.6.1 To move people and goods with minimum interference to residents and commercial activities.
- 3.6.2 To enable residents to move safely, efficiently, and easily from one part of the community to another.
- 3.6.3 To create a street system that leads into the regional highway system.
- 3.6.4 To develop a street system that provides adequate internal circulation.
- 3.6.5 To develop a street system that encourages the separation of through- and local traffic.
- 3.6.6 To minimize pedestrian-vehicular conflict points.

- 3.6.7 To improve existing street conditions.
- 3.6.8 To increase availability of public transportation and park and ride facilities.
- 3.6.9 To ensure that all proposed road programs and major improvement projects conform to the town's duly adopted municipal plan - including the plan's required transportation and land use elements - and its adopted capital budget and program.

### **3.7 Recommendations**

#### **3.7.1 Maintenance/Repair (Local Imperatives)**

3.7.1.1 Keep most of the town's roads as gravel roads. Pave them only as needed for safety, navigability in winter, protection from washout, and economy of maintenance. All road improvements should be designed and performed to minimize impacts to water quality, aesthetics, trees and other plant life, and wildlife areas. (Select Board)

3.7.1.2 Encourage public and private/voluntary efforts to maintain and enhance the visual appearance of all town roads. Such efforts include, but are not limited to, Green Up Day cleanup projects, restoration of stone walls, and maintenance of roadside trees. (Select Board)

3.7.1.3 Give priority status for repairs to the following roads:  
(Select Board & Highway Dept.)

- Airport Road
- Amsden School Road
- Branch Brook Road
- Cady Hill Road
- Jason Smith Road
- Kendricks Corner Road
- Maple Street
- Old Center Road Quarry
- Road Tenney Hill Road
- Wellwood Orchard Road

#### **3.7.2 Transportation System Management**

3.7.2.1 Research the benefits to the town of adopting an Official Map as described in 24 VSA §4421 and proceed accordingly. (Planning Commission)

3.7.2.2 Exercise good access management practices on all the town's highways to minimize traffic hazards and to minimize curb cuts. (Planning Commission & Highway Dept.)

3.7.2.3 Require all forms of land development to provide adequate off-street parking space so as to prevent clogging of roads by parked cars. Allow alternative parking provisions for pre-existing and historic buildings and uses. (Planning Commission & Zoning Board)

3.7.2.4 Require construction of all new private roads to conform to town highway specifications. Require existing private roads to conform to town highway specifications before they can be taken over as town roads. Develop a set of criteria (outside of the construction standards) for the Select Board to use when deciding whether or not to accept any new private roadways. (Planning Commission & Highway Dept.)

3.7.2.5 Encourage non-motorized transportation such as biking and walking. Consider the practicality of expanding road widths to accommodate pedestrian and bicycle lanes whenever paved roads in the town require resurfacing. Plan for either sidewalks or paved and marked pedestrian/bike shoulders on major roads in Perkinsville and Ascutney, especially near the school. This would include Route 106 through Perkinsville and Routes 5 and 131 in Ascutney. (Planning Commission, Select Board & Highway Dept.)

3.7.2.6 Ensure that the posted speed limit of each road appropriately reflects the character and usage of the road or road segment. Support the strict enforcement of all highway speed limits within the town. Encourage additional funding for increased law enforcement services if needed to achieve this recommendation. (Select Board)

### 3.7.3 Public Transportation

3.7.3.1 Support efforts by regional agencies to provide increased public transportation. Coordinate with the local commuter bus service to provide additional pick-up areas and park and ride sites. Downers should be given special consideration in this effort. (Planning Commission and Select Board)

### 3.7.4 Information/Data Management

3.7.4.1 Regularly update traffic counts on collector roads. Make appropriate accommodations as needed. (Planning Commission)

3.7.4.2 Use normally budgeted highway funds for routine and preventative road maintenance; seek special funds to rehabilitate roads in poor condition. Fully implement the Road Surface Management System (RSMS) to facilitate development of a long-range highway maintenance and construction program. (Select Board)

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3.7.4.3 Manage bridge and culvert data through the Agency of Transportation “Vermont Online Bridge and Culvert Inventory” (VOBCIT). Update and re-adopt this data at least every five years so as to obtain state and federal funding and to be able to reduce the match required by state and federal grants from 20% to 10%. (Select Board)

3.7.4.4 Use VOBCIT and RSMS to identify and rank needed road improvements and to enable cost-effective decisions. (Select Board & Highway Dept.)

3.7.5 Planning

3.7.5.1 Develop a set of criteria for the Select Board to use when deciding which ancient roads should remain as Class 4 roads and which should be designated as trails. Develop a policy for use of the town’s trails and special status roads for recreation and by motorized vehicles. (Planning Commission)

3.7.5.2 Implement the recommendations for the US 5/VT 131 intersection. (Planning Commission & Select Board)

3.7.5.3 Implement the policy items for the Exit 8 interstate interchange corridor. (Planning Commission & Select Board)



### 3.8 Tables

**Table 3A: Weathersfield Highway Mileage by Classification**

<b>Highway Classifications</b>	<b>Examples</b>	<b>Mileage</b>
Interstate Highways	I-91	6.624
US Highways	US Route 5	6.791
State Highways	VT Routes 12, 44A, 106, 131	16.768
Class 1 Town Highways	N/A	0
Class 2 Town Highways	Reservoir Rd, W. Center Rd	14.18
Class 3 Town Highways	Thrasher Rd, Amsden School Rd	55.65
Class 4 Town Highways	Old Wheeler Camp Rd	11.44
"Legal Trails"	eastern end of Yewell Ln	2.74
Private Roads	Mill Pond Ct, Old Bow Ext.	10.642
<b>Total Highway Miles</b>		<b>124.835</b>

Source: VTrans, VCGI

**Table 3B: Annual Average Daily Traffic (AADT) at Select Locations in Weathersfield**

Road/Route	Location	Annual Average Daily Traffic (AADT)									
		2015	2013	2012	2011	201	2009	2008	2007	200	2005
Weathersfield Ctr Rd	just south of Jeffrey	970			1,200	1,50			1,500	1,600	1,400
Reservoir Rd (TH4)	just north of Springfield TL						1,000		980	1,000	
Quarry Rd (TH21)	0.15 miles west of VT 106				180						
Maple St (TH25)	0.1 miles east of VT 106				230						
Tarbell Hill Rd (TH32)	0.7 miles west of VT 106						150				
Thrasher Rd (TH37)	0.9 miles east of J. Smith		210						240		
Goulden Ridge Rd (TH44)	just west of Morningside						100				
Gird Lot Rd (TH46)	just south of Goulden Ridge						170		210		170
Baltimore Rd (TH5)	0.5 miles west of VT 106		230								
Bowen Hill Rd (TH51)	between Gird Lot & I-91						180				
Bowen Hill Rd (TH51)	east of Gird Lot Rd				160						
Stoughton Pond Rd (TH6)	0.8 miles east of VT 106		410						520		
Wellwood Orch Rd	just east of Reservoir Rd				500						
Schoolhouse Rd (TH77)	west of Martin St					330					
US Route 5	just south of Wilgus St. Park				1,400	1,40	1,400	1,300	1,600	1,400	
US Route 5	north of Hastings Rd					5,40					
US Route 5	0.3 miles south of Thrasher Rd	3700				4,80		4,500		5,200	
VT Route 106	just south of J. Jensen Rd					2,80		2,700		3,100	
VT Route 106	between High & Church		2,300		2,500		3,100		3,000	2,600	2,600
VT Route 106	0.2 miles north of Ltl. Ascut.					1,50		1,600		1,600	
VT Route 131	0.2 miles east of Ascut. Notch								3,200		
VT Route 131	0.3 miles west of I-91 SB	4,800				5,70		5,000		5,400	
VT Route 131	btwn Cemetery & Tenney Hill	9,200	9,500			9,20		8,800		9,300	

Source: Automatic Traffic Recorder Station History 2005-2014 (VTrans, March 2015)

**Table 3C: Traffic Projections \* at Select Locations in Weathersfield**

Road/Route	Location	Annual Daily (AADT)	Average Traffic
		Base Year  2013	Projectio n  2033
VT Route 106	between High & Church	2,300	2,346
VT Route 131	between Cemetery & Tenney Hill	9,500	9,690

Source: VTrans, SWCRPC

Projections are based on *Continuous Traffic Counter Grouping Study and Regression Analysis Based on 2014 Traffic Data*  
(VTrans, March 2015)

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**Table 3D: High Crash Locations in Weathersfield**

<b>Location</b>	<b>Mile Marker</b>	<b>ADT</b>	<b>Crashes</b>	<b>Fatalities</b>	<b>Injuries</b>
US-5, VT-131, VT-12	5.100 - 5.200	12,475	22	0	14
I-91	46.800 - 47.100	10,200	12	0	2
I-91	47.800 - 48.100	10,200	9	0	0
I-91	52.000 - 52.300	13,000	10	0	2
I-91	53.000 - 53.300	1,300	9	0	0
VT 106	4.102 - 4.402	2,380	6	0	2
Weathersfield Center Rd	1.230 - 1.530	1,200	5	0	0
Weathersfield Center Rd	4.930 - 5.230	1,500	6	0	1

Source: High Crash Location Report - Sections and Intersections 2010-2014 (VTrans, November 2015)

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**Table 3E: Road Condition Summary**

Surface Type	General Needs	Percentage of Subtotal
Paved	None	83.2%
	Routine Maintenance	5.3%
	Rehabilitation	6.1%
	Reconstruction	5.3%
Paved Subtotal		100.0%
Unpaved	Routine Maintenance	98.7%
	Reconstruction	1.3%
Unpaved Subtotal		100.0%
<b>Total</b>		

Source: 2014 Municipal Roadway Inventory

**Table 3F: Bridge and Culvert Condition Summary**

Culvert Condition	Culverts		Bridges	
	Number	Percentage	Number	Percentage
Excellent	2	0.2%		
Good	589	71.5%	10	90.9%
Fair	123	14.9%	1	9.1%
Poor	79	9.6%		
Critical	26	3.2%		
Urgent	5	0.6%		
<b>TOTAL</b>	<b>824</b>	<b>100.0%</b>	<b>11</b>	<b>100.0%</b>

Source: 2014 Municipal Culvert Inventory

Note: Includes roadway and driveway culverts within Town ROW

**Table 3G: Culvert Needs**

Condition	Number	Est. Replacement Cost
Urgent	5	\$2,400
Critical	26	\$17,000
Poor	79	\$63,100
Total	110	\$82,500

Estimated Replacement Analysis

Funding Level	Years to Replace
At \$5K/year	16.5
At \$7K/year	11.8
At \$10K/year	8.3

Source: 2014 Municipal Culvert Inventory

**Table 3H: Minimum Driveway Spacing**

Posted Speed or Design Speed (MPH)	Unsignalized Access Spacing (FT)
20	115
25	155
30	200
35	250
40	305
45	360
50	425
55	495

Source: Access Management Program Guidelines (VTrans)

**Table 3I: Minimum Stopping Sight Distance**

Posted Speed or Design Speed (MPH)	Minimum Stopping Sight Distance (FT)
25	155
30	200
35	250
40	305
45	360
50	425
55	495
60	570
65	645

Source: VTrans B-71 Standard

**Figure A: 2007 Average Annual Daily Traffic Volume**



## UTILITIES AND FACILITIES CHAPTER

Weathersfield is a rural town that is served by a limited number of facilities and services. This chapter documents these existing utilities and facilities and evaluates improvements needed to facilitate desired growth as called for in the Town Plan. Unless noted otherwise in this chapter, all existing municipal facilities and services are considered adequate to meet anticipated future needs. The rate of growth should not exceed the Town's ability to provide adequate facilities and services.

The Town currently maintains a Capital Program and Budget (24 V.S.A. §§ 4430, 4443) for municipal equipment needs expected over the next 6 or more years, but it should be expanded to include other anticipated capital improvements. It serves a number of important functions: (1) to plan capital needs and financing, (2) targets infrastructure investments that encourage the desired future development patterns, (3) links the Town Plan with the annual budgeting process, (4) if used properly, can prevent budget and tax rate fluctuations by scheduling expensive capital projects over several years, and (5) serves as a legal tool in Act 250 proceedings under Criterion 9(A) – Impact of Growth.

When compared to other towns in the area, Weathersfield has a low debt level. Taxpayers are bearing the burden of \$500,000 in annual debt service for the new public school. While the Town debt reflects sound management of municipal finances, it also presents an ability to absorb more debt for strategic infrastructure investments.

### 4.1 Water

On April 1, 2013, the Ascutney Fire District #2 purchased the former Country Estates water system. This system currently serves about 200 users located in the Country Estates mobile home park and in parts of the Village along the US Route 5 corridor and extending out to the Irving Gas Station on VT Route 131.

This system is served by two wells located near the end of Cherry Lane and a 42,000-gallon storage tank located inside the water storage pump house. The District paid \$275,000 to acquire this system and anticipates spending \$1.225 million to make the required system improvements noted in the Ascutney Fire District #2 Water System Feasibility Study. These costs are being financed through the Vermont Bond Bank, with the \$1.5 million to be repaid by customers over a 30-year period.

With the system upgrades noted above, this water system is considered adequate for the future needs of the District (based on recent growth trends). The water storage tank is the limiting factor for unanticipated growth. Developers will be required to pay for any necessary line extensions and water tank expansions required in order to meet the demands of their project.

The District will update its Source Protection Plan in 2017, which is subject to approval by the Vermont Department of Environmental Conservation and it will be resubmitted for review and approval in 2020. While DEC has established a wellhead protection zone for this



water supply, there currently is no zoning overlay district to protect the quality of this public water source.

There are ten “non-community” water supply systems that are subject to approval by the Vermont Department of Environmental Conservation or the Department of Health. These systems generally provide potable water for businesses or public facilities, such as the State Parks, campgrounds, inns, and restaurants.

Potable water for the majority of the Town is from on-site wells, including the Village of Perkinsville. Sections of Ascutney Village along Route 5 are served by a municipal water system provided by the Ascutney Fire District # 2.

#### **4.2 Sewer**

There are no public wastewater systems in the Town; all houses and businesses are served by private septic systems. Density in the villages should be limited to lots that are of a sufficient size to allow both a well and septic system.

The public water system in portions of Ascutney helps to accommodate increased density desired for the village, but lot sizes still need to accommodate on-site or shared septic systems. Although there have been a few engineering studies completed in the recent past, there are no plans to develop a public wastewater system in Ascutney at this time.

The Village of Perkinsville is served by all private wells and on-site septic systems, although there are several shared systems. This situation severely limits growth in Perkinsville. In addition, many of the Perkinsville septic systems are aging and have little room for replacement systems. An engineering study is needed to evaluate how to address water and wastewater needs in Perkinsville.

On-site septic systems are generally considered adequate to accommodate the desired future growth patterns in the remainder of the Town.

#### **4.3 Storm Drainage**

The State maintains the storm drainage system along the state highways in both villages. There is no municipally-maintained closed storm drainage system in the Town. The Town maintains ditches, culverts, and bridges associated with the Town highway system, as discussed in the Transportation Chapter. Town road standards and subdivision bylaws include standards for storm drainage systems. Drainage easements should be required for the diversion of water flows over adjacent privately- owned lands. In light of recent storm events, it is recommended the Town drainage standards be re-evaluated.

#### **4.4 Electric Utilities**

There are no power plants located in Weathersfield. The nearest power plants were Wheelabrator in Claremont -which closed in 2013 - and Vermont Yankee in Vernon - which closed in 2014.-An oil-fired generating facility in Ascutney is used during periods of high demand. There are residential renewable power systems (solar hot water, photovoltaic, or wind turbines) located in Weathersfield generating small amounts of electricity.

Electrical service is provided by Green Mountain Power (GMP), which recently merged with Central Vermont Public Service Company (CVPS). Vermont Electric Company (VELCO) owns the transmission lines that distribute power from the Independent System Operators (ISO) New England power grid throughout the State. Weathersfield is crisscrossed by electric power transmission lines. These lines **impose visually** on the landscape and the required easements decrease the value of private land. Underground distribution and transmission lines should be considered. Primary considerations for new or expanded distribution and transmission facilities include preserving important historical resources, mitigating aesthetic impacts along major travel corridors and viewsheds, and minimizing natural resource impacts (such as fragmenting important wildlife habitat and corridors, and construction within a Vermont significant wetland and related buffer). The 2012 Vermont Long-Range Transmission Plan includes a second 115kV transmission line between the Ascutney and Coolidge substations, passing through Weathersfield and Cavendish.

#### **4.5 Communications**

The maintenance of a modern and accessible communications network is considered essential to the public welfare. At the same time, the infrastructure of this system must be developed in an efficient, safe, and thoughtful manner. Impacts upon scenic and cultural resources, aesthetics, and human health are important considerations for the planning and permitting processes.

Weathersfield is served by at least six telephone exchanges provided from surrounding towns. It is also served by one cable company (including a public access channel). These services share the same rights-of-way as the power company. High-speed internet is now available in the villages and in most of the town; some rural parts of the Town may still have only dial-up or satellite service, which is generally not considered adequate for current needs. Cellular telephone service is provided by several carriers from towers located both in Weathersfield and surrounding towns.

One subject of particular concern is the siting and construction of wireless communications facilities. These structures and associated access roads can alter mountaintops and ridgelines in ways that negatively impact scenic and natural resources vital to the Town's economic future and cultural richness. Traditionally, the regulatory focus has been on co-location with the intent to concentrate providers on a small number of tall towers. This has resulted in multiple tall towers with no co-locators. It is preferable to allow multiple, shorter towers that barely clear the surrounding tree height rather than a single very tall

tower that is difficult to disguise. Effective types of camouflage should also be considered when that camouflage can demonstratively reduce the visibility of the installed tower.

Local repeater towers and the cell tower installation just south of the Route 5 / Route 131 intersection are representative of these areas of concern.

#### **4.4 Town Buildings**

The Town of Weathersfield conducts its business from the Town offices in Ascutney, shared with Martin Memorial Hall, a public multi-purpose room downstairs. This building was renovated around 1990, making both floors ADA accessible and adding new vault and office space. Additional vault space is needed in the future. There should be adequate meeting space so Town committees may meet in a common, public space. The Town also needs to identify an emergency operations center.

Weathersfield owns a highway department garage on Stoughton Pond Road in Perkinsville, constructed around 1970, which houses all of the trucks and equipment to maintain the transportation system

There are two volunteer fire departments, each with its own fire house and equipment. Equipment needs are generally listed in the Capital Budget and Program for both departments. The non-motorized equipment fund, voted on annually at Town Meeting, is important to fund smaller equipment needs.

West Weathersfield Volunteer Fire Department is housed in a fire station at Downers Corners. The Department is also planning to remodel the fire station, to be paid for through grant funds without Town-funding. The dry hydrant grants have been very helpful to improve fire-fighting water sources in West Weathersfield. The Department will continue to seek ~~those~~ available grants.

Ascutney Volunteer Fire Department is located in the fire station located west of the I-91 Exit 8 park-and-ride lot; the Department has a 100-year lease on the State-owned land where the station is located. The Ascutney Department received a grant for a repeater to improve emergency responder communications.

Weathersfield is part of the regional mutual aid system. Emergency medical services are provided by Golden Cross Ambulance in Claremont, NH. The Town should consider obtaining ambulance coverage based in Springfield for the western part of the town.

The Town has a police department staffed with one full-time chief, one full time officer, and four part-time officers. It currently operates from a small, one-room office located in the Town Hall. This space is inadequate in terms of office space, lack of privacy, and functionality. Relocating the police department to a new, larger location would enable the department to better address the needs noted above.

The Town owns the site of the former Perkinsville School, which has not been used since the Town school consolidation. The Town plans to keep the historic 1879 building and has improved access to the recreation area at Hoisington Field. The historic school building is being renovated. (See the Hoisington Field discussion under the recreation section of this Chapter for more information.)

Weathersfield is part of the Southern Windsor/Windham Counties Solid Waste Management District (SWCSWMD), which has prepared a Solid Waste Implementation Plan. The district manager and recycling coordinator are contracted through the Regional Planning Commission. The town-owned transfer station is located near the intersection of VT Route 106 and Amsden School Road. It is staffed by two employees and operates three days a week for residents to drop off trash and recycling. The portion of the lot on which the transfer station is located is within the floodplain. This facility also serves the towns of Reading and West Windsor.

The Weathersfield Proctor Library, located in Ascutney near Martin Hall, has been serving the Town for a century as its public library. State accredited, it has a collection of over 9,000 items and a yearly circulation of over 6,900 books and other materials as of 2013. In addition, the library has three high speed public access computers, WiFi, and hosts art exhibits, and public meetings. The Library Trustees completed a \$58,000 sewer connection to Martin Memorial Hall in 2007, and are installing fiber optics paid for through a grant. The Trustees are actively pursuing a significant facility expansion project for 2017.

There are 14 cemeteries in Weathersfield. Eleven of these are maintained by the Town, which means even though some may be on private land, they are not maintained by the owner and the Town has taken over this responsibility. Permanent public access is not secured for all of these cemeteries. The remaining cemeteries are privately-owned and maintained. The Town of Weathersfield has land available for a needed expansion project; a site evaluation is needed to determine the suitability for this purpose.

#### **4.5 Recreation**

Recreation is one of the Town's primary assets. Maintaining public access to the existing wealth of recreational facilities is consistent with the goal of keeping Weathersfield a pleasant place in which to live.

The Town has a Parks and Recreation Committee. It needs an updated mission statement and long-range plan in light of recent developments at Hoisington Field in Perkinsville and the need for adequate athletic fields near the Weathersfield School.

The Stoughton Pond recreation area is part of the North Springfield Flood Control Area, operated by the U.S. Army Corps of Engineers. It provides the only public swimming in the Town. Picnicking, boating, fishing, and nature areas are available there. The Ascutney Mountain Audubon Society and the Army Corps of Engineers have developed the Springweather Nature Area, on the Springfield/Weathersfield border.

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Hoisington Field is under the stewardship of Trustees of Public Funds. It is located at the site of the former Perkinsville School and has several playing fields for summer use and a skating rink for winter use. In 2013, the Town demolished two sections of the school, preserving the historic District Number 1 School building. A plan should be developed for this property that takes the Village setting into account and evaluates improved access to Hoisington Field and future uses of the remaining school building.

The Weathersfield School in Ascutney has athletic fields and a playground. Space is limited at this school for additional athletic fields. Improvements for bicycling and walking access to the school and related recreational facilities are identified in the Town's *Safe Routes to School* 2010 School Travel Plan.

The Weathersfield School, while "owned" by the school district (therefore not a Town facility, but a publicly-owned facility) was proposed to the Town as an upgraded educational facility with a Middle School size gym/auditorium that would serve the dual purpose of PE/drama for the school and also be available to the community for recreational use. The Gym/auditorium was designed to be accessible by the community, while allowing the rest of the building to be secured. A use policy would outline roles and responsibilities of both the Town and school for recreational building use. The Town and School District should publicize the use policy to offer after-hours indoor recreation opportunity to residents consistent with school safety concerns.

The Connecticut River, which forms the eastern boundary of the Town, is an excellent recreational asset for boating, fishing, and bird watching. It has limited local recreational access. There are public river access sites in Springfield as well as in Cornish and Claremont, NH. The Town owns the road to the Old Ferry Landing; improvements could provide limited access for small boats. Wilgus State Park has sites for camping along the river and also offers a canoe launch area. The flow of water in this reach of the river is controlled by the power dam at Bellows Falls, making it very quiet.

The Black River runs through the southwestern section of Town and provides excellent white water canoeing and kayaking during spring runoff. It also provides excellent fly fishing upstream of the Upper Falls covered bridge. Public access to the river is available at several locations along VT Route 131.

The Ascutney Trails Association maintains the Weathersfield Trail, a hiking trail to the summit of Mount Ascutney. It starts at the trailhead parking lot at the end of High Meadow Road (off Cascade Falls Road) and connects to an extensive trail system in Ascutney State Park and the West Windsor Town Forest.

A Town Forest of 310 acres on the southern slope of Mount Ascutney was acquired in 2011 by the Town in coordination with the Upper Valley Land Trust, Weathersfield Land Preservation Association, and the Weathersfield Conservation Commission. The property is a significant community asset for its natural resource values that including scenic slopes,

wildlife habitat, water quality protection, and forest resources. The Town Forest is also a recreational resource that is open to the public for low-impact use. Currently, only limited access is available through the State Park in Windsor. Improved permanent access to the Town Forest from Thrasher Road is needed for timber management activities and public recreational access. A long- range management plan is also needed for the new Town Forest.

The Little Ascutney Wildlife Management Area is managed by the Vermont Fish and Wildlife Department primarily for hunting and wildlife viewing. It comprises 656 acres in Weathersfield and West Windsor and includes Little Ascutney Mountain and Pierson's Peak. Its primary access is off Ascutney Basin Road. Combined with the adjacent West Windsor Town Forest, Ascutney State Park and Weathersfield Town Forest, the approximate total land area of 5,000 protected acres is an outstanding community asset.

The historic Crown Point Military Road, which was a main thoroughfare during pre-Revolutionary Vermont, traverses the Town from the Crown Point Country Club on the Springfield town line to the Cavendish town line, primarily across private properties and is currently not well marked. The Crown Point Road Association has published a guide called *"The Historical Markers on the Crown Point Road: Vermont's First Road."* The Crown Point Road is currently designated as a Class 4 Town Highway.

The Vermont Association of Snow Travelers (VAST) maintains a network of snowmobile trails connecting local trails to the state network of trails. The Weathersfield Pathfinders Snowmobile Club has approximately 30 miles of trails in the Town.

There are currently three (3) private campgrounds in Weathersfield, offering over 300 campsites and other amenities to campers and travelers.

#### **4.6 Other Public Facilities**

Weathersfield is served by two post offices, one at Downer Four Corners and one at Ascutney, each providing local postal services. Delivery routes are served from post offices in surrounding towns.

The Town of Weathersfield owns and operates a 30-acre sand pit in the Bow. The pit is projected to provide the Town with high-quality road sand until 2039.

#### **4.7 Childcare Facilities**

Safe, effective and affordable childcare services are important for both empowering parents of young children to work as well as providing early childhood education. The State of Vermont currently lists five registered childcare facilities in Weathersfield (Public data base [www.brightfutures.dcf.state.vt.us](http://www.brightfutures.dcf.state.vt.us)) and many child care facilities are also located in surrounding towns. Residents also rely on informal childcare as well as registered babysitting arrangements. The child care resource and referral agency for Weathersfield is

the Springfield Area Parent Child Center, which is located in North Springfield. Weathersfield's zoning bylaws allow for child care facilities in accordance with 24 V.S.A. §4412(5).

#### **4.8 Utilities and Facilities Goals**

4.8.1 Provide safe, convenient and cost-effective community services and facilities.

4.8.2 Develop a multi-year plan to finance the necessary capital investments to support anticipated growth in accordance with desired future land use patterns (see Land Use Chapter).

4.8.3 The Town should seek opportunities for additional regulation-scaled recreation facilities.

#### **4.9 Utilities and Facilities Policies**

4.9.1 Developers should pay for any necessary water line extensions or water storage expansions for projects located within the Ascutney Fire District #2.

4.9.2 Power generation and transmission facilities will meet the Standards for Section 248 Proceedings listed at the end of this chapter.

4.9.3 Any proposed wireless communications facilities must:

4.9.3.1 Utilize existing facilities before new sites are considered;

4.9.3.2 If collocation is not feasible, new wireless communications facilities will not project more than 20 feet above the average elevation of the tree line measured within 50 feet of the highest vertical element of the Wireless Telecommunication Facility, unless the proposed elevation is reasonably necessary to provide adequate wireless telecommunication service capacity or coverage or to facilitate collocation of facilities; and

4.9.3.3 Wireless communications facilities will blend into the surrounding landscape by utilizing the most appropriate stealth technology for the site.

4.9.3.4 New electric distribution lines will be placed underground in order to maintain important viewsheds that are identified as "favorite scenic views" in the Natural, Scenic, and Historic Resources section of this Plan.

4.9.3.5 Maintenance of electric distribution lines will minimize tree clearing along existing roadways and identified scenic viewsheds.

4.9.3.6 Improve awareness of and public access to public-owned recreation facilities such as the Weathersfield School Gymnasium/Auditorium, Hoisington Field, and the Town Forest.

4.9.3.7 Development will not diminish public access to existing public recreational facilities.

4.9.3.8 Town roads will not be discontinued if they are used for recreation or provide access to recreational opportunities. Instead of discontinuation, the Town should consider reclassification as a Legal Trail (19 V.S.A. §302).

4.9.3.9 In planning for Town lands and future acquisitions, work with organizations such as ATA (Ascutney Trails Association), STAB (Sport Trails Ascutney Basin), WTI (Windsor Trail Improvement), VAST (Vermont Association of Snow Travelers), VT Department of Forests, Parks and Recreation, Weathersfield Land Preservation, and Crown Point Road Association to support continued improvement and expansion of recreational trail systems.

4.9.4 Provide the highest quality maintenance and upkeep of the Town's cemeteries in order to preserve their historical significance.

4.9.5 Strive to secure permanent public access to all cemeteries.

4.9.6 Support the development and operation of child care facilities within the Town - provided they meet all applicable zoning and ADA and life safety standards.

4.9.7 Public boat access to the Connecticut River shall be limited to non-motorized boat access only. Power boat access and marina development to the Connecticut River is not in conformance with this Town Plan.

4.9.8 Development will not exceed the ability of the municipality to provide facilities and services.

4.9.9 Evaluate current goals and mission of Parks and Recreation Commission and create policies that govern commission activities and expenditures.

#### **4.10 Utilities and Facilities Recommendations**

4.10.1 Explore ways to protect the public water supply serving Ascutney Fire District #2, such as establishing a source protection overlay district in the zoning bylaws.

4.10.2 Seek funding for an engineering study to address water and wastewater needs within the Village of Perkinsville.



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4.10.3 Highway Department will maintain an up-to-date inventory of storm drainage facilities, including Town-owned culverts and bridges.

4.10.4 Replace trucks and other equipment in accordance with the most recently adopted Capital Budget and Program. Maintain adequate funding levels in both the Motorized and Non-Motorized Equipment Funds for identified priority equipment needs.

4.10.5 Update the Capital Budget and Program to include other capital costs including:

4.10.5.1 Providing additional space for the Police Department;

4.10.5.2 Expanding storage space in the Town Offices;

Improve the town's highway garage, including energy upgrades, heating system upgrades, installing an emergency generator, and providing a potable water system; and installing a highway garage floor drain wastewater system, (Note: The town crew completed extensive insulation work at the town garage and an efficient oil-fired heating system has been installed.)

4.10.5.3 Library expansion project.

The Proctor Weathersfield Library received approval from the Zoning Board of Adjustment to construct an addition to the south side of the building that will provide access to both the main and lower levels, thus expanding the main level and children's area and relocating the librarian's office and book service tasks to the basement

4.10.6 Develop management plans for Town-owned and managed facilities.

4.10.7 Evaluate the following projects to improve municipal facilities and services:

4.10.7.1 Acquiring land for developing additional athletic fields in Ascutney;

4.10.7.2 Planning an interconnected recreational trails network both throughout the Town and around Mount Ascutney;

4.10.7.3 Developing new road and parking area to improve access to the Town Forest;

4.10.7.4 Improving public recreational access to the Connecticut and Black Rivers;

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4.10.7.5 Conducting a feasibility study to determine site suitability for expanding the Plains Cemetery on adjacent lands;

4.10.7.6 Securing permanent access to the Tolles Cemetery;

4.10.7.7 Flood proofing the transfer station and removing it from the special flood plain;

4.10.7.8 Establishing fire-fighting water supply to supplement the fire pond in Weathersfield Bow;

4.10.7.9 Establishing fire-fighting water supply for the village of Ascutney;

4.10.7.10 Inventory fire-fighting water supplies for the Town and develop a plan for needed additional dry hydrants.;

4.10.7.11 Other facility improvements as identified in the Weathersfield All-Hazard Mitigation Plan.

4.10.7.12 The Town should plan for the future demand for child care services that are safe and affordable and integrate child care issues into the planning process, as appropriate.

4.10.7.13 The Town should work to achieve the goals and action steps outlined in the Southern Windsor/Windham Counties Solid Waste Management District's Implementation Plan.

4.10.7.14 The Town should promote cooperation among participating municipalities in the implementation of source waste reduction, recycling, and composting programs on a District-wide basis.

4.10.7.15 Town officials should work closely with the Library Trustees to address current and future needs. The resources and location of the library need to be given greater exposure and public awareness.

4.10.7.16 Identify and develop an emergency operations center for the Town.

4.10.7.17 Actively publicize existing health and human service agencies, health programs, transportation services, and recreational activities that are available in the area to residents and visitors.

#### **4.11 Standards for Section 248 Proceedings**

4.11.1 Public utility power generating plants and transmission facilities regulated by the Vermont Public Service Board under 30 V.S.A. § 248 are exempt from local zoning.

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Therefore, the following standards are provided to guide the Public Service Board in reviewing all such projects. The following standards shall apply to all Section 248 projects in addition to other relevant statements of policy found throughout this Town Plan.

4.11.1.1 The Town shall support the following projects:

4.11.1.2 Residential-scale renewable energy systems.

4.11.1.3 Any project that imposes de minimis impacts, which is determined by meeting the following criteria:

4.11.1.3.1 Project consists of either: co-location on a legally existing tower, upgrades to legally existing equipment, or similar projects; and,

4.11.1.3.2 Project does not involve: new towers, extending the height of existing towers, new access roads or expansions of existing access roads, or similar projects.

4.11.2 Prior to the approval of new commercial power generation facilities and additional or upgraded transmission or distribution lines or facilities, utilities shall demonstrate that they have first maximized demand management and energy efficiency and conservation efforts.

4.11.3 Commercial-scale energy production facilities, related access roads and structures, and transmission facilities shall:

4.11.3.1 Avoid undue adverse impacts on resources listed on the National or State Registers of Historic Places or on resources listed in this Plan's "Natural, Scenic, and Historic Resources" Chapter or in the neighborhood;

4.11.3.2 Mitigate aesthetic impacts along major travel corridors and important scenic viewsheds;

4.11.3.3 Place such facilities in locations that prevent fragmentation of important wildlife habitat and travel corridor areas;

4.11.3.4 Avoid construction within Vermont Significant Wetland buffers and special flood hazard areas;

4.11.3.5 Evaluate the feasibility of placing transmission lines underground.

4.11.4 The Town requests that the Public Service Board require the developer to provide the following information as part of a complete application:

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4.11.4.1 A wildlife habitat assessment, including assessment of impact to migratory, resident, and breeding avian and bat populations;

4.11.4.2 A rare species assessment; and mitigation plans, if necessary;

4.11.4.3 A visual impact assessment, including pre- and post-construction photo simulations of the project as seen during the day and at night;

4.11.4.4 Alternative sites analysis;

4.11.4.5 Adequate financial surety, either in cash or letter of credit, to repair damage to local roads and to stabilize the entire construction site during construction of the project. The financial surety should be available to the municipality in the event that the municipality is forced to conduct work to secure the stability of the soil and vegetation on the site, including the access road, after construction is completed;

4.11.4.6 Sufficient decommissioning funds, kept in an escrow account associated with the property that is separate from the developer's general accounts, so that the site will be restored to natural conditions if the project is not repowered at the end of its useful life;

4.11.4.7 A contingency plan that outlines mitigation action, in the event of unforeseen and unacceptable negative impacts from the completed project; and,

4.11.4.8 Financial assistance to the municipality to pay for the hiring of qualified engineering, environmental, and legal consultants to assist the Town in reviewing the application and establishing local revenue agreements.

**TABLE 4A Implementation Matrix**

Town Plan for Weathersfield, Vermont						
Implementation Matrix - Needs for Municipal Facilities						
Need	Responsible Party	Chapter	Priority	Cost	Financing	Comments
Ascutney Water System Improvements	Fire District #2	Utilities & Facilities	High	High	Bond	Complete
Engineering study of water and wastewater needs in Perkinsville	Village Trustees	Utilities & Facilities	Medium	Low	CWSRF	
Evaluate municipal office building for needs (e.g. vault, meeting space, EOC, police offices)	Town Manager	Utilities & Facilities		Low		
Develop a plan for the use of the historic Perkinsville school building		Utilities & Facilities				
Proctor Library expansion project	Library Trustees	Utilities & Facilities		High	Grant or other financing	
Improved permanent access to the Town Forest from Thrasher Road	Town Manager	Utilities & Facilities				
Develop a long-range management plan for the Weathersfield Town Forests		Utilities & Facilities				
Resurface Amsden School Road	Highway Dept.	Transportation	High	Moderate		
Resurface Kendricks Corner Road	Highway Dept.	Transportation	High	Moderate		
Investigate improvements to VT Route 131 between I-91 and the Connecticut River per Interchange Master Plan		Transportation				

## **NATURAL, SCENIC, AND HISTORIC RESOURCES**

“24 VSA § 4302 Purpose; goals calls for the identification, protection, and preservation of important natural and historic features of the Vermont landscape - including significant natural and fragile areas; outstanding water resources, including lakes, rivers, aquifers, shore lands and wetlands; significant scenic roads, waterways and views; and important historic structures, sites, or districts; archaeological sites and archaeologically sensitive areas.”

“24VSA § 4382(a) (5) requires all municipal plans to include a statement of policies on the preservation of rare and irreplaceable natural areas and scenic and historic features and resources.”

This chapter addresses those goals and requirements. There are several maps that are attached to the Town Plan appendix which support this chapter

The Weathersfield Conservation Commission, drawing on outside professional expertise, performs an advisory role to Town officials by directing attention to the resources mentioned in this section, and reports to the Planning Commission on the impact of land development and subdivisions on these resources.

### **5.1 Significant Natural and Fragile Areas**

This section identifies and describes how Weathersfield wishes to preserve or conserve significant natural and fragile areas. The rivers, streams, ponds, wetlands and forested areas in Weathersfield combine to provide habitat for a broad variety of wildlife species. Important habitats, natural communities, riparian areas, and large contiguous forests are important for a healthy ecosystem, maintaining clean water and quality wildlife habitat, as well as contributing to rural character and supporting hunting, fishing, and sustainable working landscape activities.

### 5.1.1 Biofinder Tiers 1 through 3

Biofinder Tiers 1 through 3 represent the highest priority natural and fragile areas in Weathersfield. These are the areas that are known to exist and are considered irreplaceable and were identified using Elizabeth Thompson's *Biological Natural Areas of Weathersfield, Vermont (1992)*; the Vermont Agency of Natural Resources Biofinder program (biofinder.vt.gov); and the Vermont Agency of Natural Resources Atlas (anrmaps.vermont.gov). Biofinders Tiers 1 through 3 conservation areas are shown on the Significant Natural & Fragile Areas Map. These areas are critically important and require a high level of protection. They include:

*5.1.1.1 Rare, threatened, or endangered species:* A rare species is one that has only a few populations in the State and that faces threats to its continued existence in Vermont. Threats include development of habitat, harassment, collection and suppression of natural processes, such as fire. Known locations of these species are mapped, but the exact locations are not precise.

*5.1.1.2 Significant natural communities:* A natural community is an interacting assemblage of plants and animals, physical environment, and the natural processes affecting them. Significant natural communities are determined by how rare they are in Vermont and determined by the size and condition of the particular occurrence. Regulatory provisions apply to developments near significant natural communities and rare, threatened, or endangered species locations in accordance with Weathersfield's Zoning Bylaws.

*5.1.1.3 Riparian Areas (river and stream buffers/floodplains):* Riparian areas are ecosystems comprised of rivers, streams, lakes, wetlands, and floodplains. They form a complex and interrelated hydrological system and are unique in their high biological diversity.

*5.1.1.4 Thompson's high priority natural sites:* These important natural areas were prioritized based on statewide and local significance articulated in the *Biological Natural Areas of Weathersfield, Vermont*.

*5.1.1.5 Engstrom's Ecological Inventory of the New Weathersfield Town Forest (2016)* identifies natural communities, rare and uncommon plants.

*5.1.1.6 The State of Vermont, ANR, Department of Forests, Parks, and Recreation and Fish and Wildlife Department's Ascutney Management Unit Natural Resource Assessment and Analysis* identifies natural communities, rare, threatened, and endangered species in Little Ascutney Wildlife Management Area, Mt. Ascutney State Park, Weathersfield Wildlife Management Area, and Wilgus State Park.

Both the natural world and our understanding of it are continually changing. In developing bylaws to protect natural resources, the town should make use of the best available current information, such as Biofinder ([biofinder.vt.gov](http://biofinder.vt.gov)), or data gathered recently regarding a specific site. Preference is to be given to approaches that balance multiple factors using the best data available rather than absolute prohibitions based on one specific type or source of information.

Many of these sites contain rare, uncommon, or endangered species of plants and/or animals. Rare plants and animals are important for a variety of reasons. Some are indicators of unusual habitats, changing climate, or a decline in environmental quality. There are species that may provide substances with important but as-yet-unknown uses such as for medical, agricultural, or industrial products. There are also plant species such as milkweed that should be preserved in order to maintain quality habitat for the migratory monarch butterfly. Many uncommon species will disappear if not recognized for protection. Endangered dwarf wedge mussels (*Alasmidonta heterodon*) have been found along the Connecticut River in Weathersfield, the rare plant false dragonhead (*Physostegia virginiana*) has been located within the town, historic nesting sites of the peregrine falcon (*Falco peregrinus*) exist on Little Ascutney Mountain and Hawks Mountain. The bald eagle (*Haliaeetus leucocephalus*) nests on the Black River waterway near the Hartness Airport. Additional plants and animals are listed in a natural and fragile areas map.

Each of these sites is vulnerable to indiscriminate development, either within their boundaries or adjacent to them. Indiscriminate development means that which causes substantial harm to water quality or quantity, trees, vegetation, or aesthetics. These sites are not always identified with a precise location, so as to avoid 'harvesting' or other negative human impacts.

#### 5.1.2 Biofinder Tiers 4 and 5

Biofinders Tiers 4 and 5 conservation areas include priority landscape-level elements that are comprised of large blocks (i.e. over 500 acres) of undeveloped contiguous forest habitat areas and connecting wildlife travel corridors. These elements are important for the following reasons:

5.1.2.1 Supporting biological requirements of many plants and animals.

5.1.2.2 Serves as habitat that supports viable populations of wide-ranging animals by allowing access to important areas for reproduction, genetic exchange and feeding habitat. Large contiguous blocks of forestland connected by travel corridors are relied upon by large mammals such as moose, bear, deer, and bobcat, as well as a variety of small mammals and songbird species for food, shelter, breeding grounds, and migratory stopovers. These large blocks of



undisturbed forest land also provide habitat for a large variety of smaller wildlife species.

5.1.2.3 Provides forest management opportunities for sustainable extraction of forest products.

5.1.2.4 Helps to maintain air and water quality.

5.1.2.5 Contributes to rural character by maintaining a high proportion of forest land cover in the town, while also providing low-density working landscape areas that surround higher-density developments within the villages and hamlets.

While development may be allowed in these Biofinder Tiers 1-3 areas, great care is required to maintain a very low density, prevent fragmentation and ensure that the functionality of these habitat blocks continues. Due to inventory and mapping limitations for landscape-level natural heritage elements, these areas may require additional site assessment to verify the extent and quality of habitat impacted by each development proposal.

## **5.2 Outstanding Water Resources**

All of Weathersfield's water resources are considered irreplaceable. Construction related disturbances such as stream crossings and pond construction involving streams can negatively impact natural systems due to excavation, damming, and discharges. These disturbances can create sedimentation, loss of stream flow, degradation of water quality, disruption of stream bottom, loss of fish and invertebrate habitat, the introduction of non-native fish species, and barriers to native fish passage spawning or refuge areas. Impacts of construction related disturbances to fish reproduction can be minimized by restricting in-stream construction to the period of June 1st to October 1st and by encouraging pond designs that eliminate these potential impacts.

The use of riparian buffers may be either regulatory or voluntary, and is one of the best and most commonly used methods of protecting surface water. This strip of natural or planted vegetation along the riverbank can control bank erosion, intercept harmful nutrients, toxic chemicals and sediments before they enter the surface waters.

### **5.2.1 Ponds**

Cooks Pond: The only natural pond in Weathersfield and as such is considered particularly significant. Development around or near the pond is its greatest threat in terms of degradation of the water quality (from runoff) and aesthetics. This property is protected from development by the Upper Valley Land Trust. However, It is still vulnerable to degradation by poor logging practices and invasive species. (Biofinder Tiers 1 and 2)

There are other bodies of surface water in Weathersfield, but they are all artificially created and are managed by outside entities. They include Tenney Hill Pond, Stoughton Pond, Rendely Pond, Springfield Reservoir, and the impoundment above the North Springfield Flood Control Dam.

## 5.2.2 Rivers/Streams/Brooks

*5.2.2.1 Connecticut River:* Weathersfield lies within the Connecticut River Drainage Basin; split among the watersheds of the Black River, Mill Brook, and smaller east-draining watersheds south of Mill Brook (Basin #10). The Connecticut River is the town's largest body of surface water and is the focus of the Silvio O. Conte National Fish and Wildlife Refuge. According to the Connecticut River Joint Commission Corridor Plan, the stretch of river from the mouth of the Ompompanoosuc River to Weathersfield Bow supports a rich collection of plant and animal life. A major scenic and recreational resource, the Connecticut River has been designated an American Heritage River and Route 5 is part of the Connecticut River Scenic Byway.

The VT Agency of Natural Resources (ANR) is currently updating the Tactical Basin Plan (TBP) for Basin #10, which will include both the Mill Brook and the Black River. TBPs are developed according to the goals and objectives of the Vermont Surface Water Management Strategy to protect, maintain, and restore the biological, chemical, and physical integrity, and public use and enjoyment of Vermont's water resources, and to protect public health and safety.

The TBP is the guidance document for the ANR's work on water resources. It is used to prioritize projects and target resources for restoration and protection. The TPB serves as a basis for certain state funding programs. Goals and water quality-related projects listed in the *Town Plan* may then be integrated into the TBP.

The town will receive additional consideration on grant funding applications if it adopts higher levels of protection for flood hazard areas. These protections also qualify the town for reduced cost share after a declared disaster for damage to public infrastructure including roads and culverts through the Emergency Relief and Assistance Fund (ERAF). For disasters after October 23, 2014, the State of Vermont will contribute an additional 7.5% toward the costs.

*5.2.2.2 Black River:* The Black River is a scenic and somewhat shallow river that flows across a rock and boulder-strewn channel into Weathersfield from Cavendish. It is valued for fishing (it is stocked each year by the VT Department of Fish and Wildlife) and its natural beauty. Significant damage occurred to Routes 131 and 106 in both Weathersfield and Cavendish during Tropical Storm Irene.

*5.2.2.3 North Branch:* This river meanders widely across active farm fields of prime agricultural soils in the northwest quadrant of the town. It has a particularly

wide flood way and associated flood plain. During Tropical Storm Irene, the river caused substantial damage at the bridge on Ascutney Basin Road. This river is significant for its picturesque qualities and for its service to the adjacent agricultural fields.

*5.2.2.4 Branch Brook:* Like the Black River and the North Branch, this brook is fairly shallow and strewn with rocks and boulders. During Tropical Storm Irene, this brook caused significant damage to Branch Brook Road and VT Route 131 at the point where the brook takes a sharp turn.

*5.2.2.5 The Black River, the North Branch and Branch Brook* all flow into the U.S. Army Corps of Engineers Flood Control Area in the southwest quadrant of the town.

*5.2.2.6 Cascade Falls:* This 80-foot waterfall is significant for its beauty and is located on a tributary of Mill Brook. It is also noted as an important geologic site because, being at the very edge of the magma chamber, it displays blocks of the surrounding metamorphic rock that fell into the hot magma before it cooled and hardened into the solid rock of today's mountain.

*5.2.2.7 Mill Brook:* The reach between the end of Hidden Glen Road and Tenney Hill is the site of a deep walled gorge with two old mill dams. It is a very attractive area, surrounded by hemlock forest. It is enjoyed by anglers and swimmers; though it is lightly used. Its significance is mostly as a scenic area.

*5.2.2.8 Roaring Branch:* This small stream falls to Route 5 in the scenic Blakeslee's Falls.

*5.2.2.9 Blood or Pond Brook:* This brook drains Cook's Pond and, in the early days, hosted French's sawmill.

*5.2.2.10 Bark Mill Brook:* This stream has remains of Steele and Hubbard's sawmill, sometimes a grist mill, and later Consul Jarvis' bark mill that supplied ground bark for his tannery. From the bridge over Bowen Hill Road may be seen a small, vertically-walled gorge.

### 5.2.3 Aquifers

Groundwater is Weathersfield's primary source of drinking water - with most residents relying on wells and springs for their domestic water needs. This essential resource can suffer significant and sometimes irreversible damage from pollutants including septage from improperly designed or malfunctioning septic tanks and leaching fields for waste water, leakage from underground gasoline and oil tanks, and improper disposal of chemical waste. The best way to ensure good quality groundwater is to prevent contamination in the

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first place, since control and abatement after the fact is extremely difficult, expensive, and often impossible.

A Town-wide aquifer mapping project was conducted during the spring, summer and fall of 2016 with a grant from the Vermont Geological Survey and the University of Vermont. A map and report will be available in the Town Office in the spring of 2017.

Because the town's residents rely so heavily on the groundwater resource - and cleanup is so difficult - the town should actively pursue mapping the aquifers and adopting regulations to prevent damage.

#### 5.2.4 Shore lands/Stream & River Banks

All shore lands, stream banks, and river banks play a vital role in protecting surface water quality and providing habitat to the wildlife that live in or adjacent to the ponds, rivers, and streams. It is critically important that natural vegetation on these lands and banks be enhanced and maintained so that they will continue to provide their important function. Development and associated activities should be carefully controlled so as to avoid compromising the health of these areas.

#### 5.2.5 Wetlands

Wetlands are a unique and valuable natural resource in Weathersfield. Primary wetland values include fish, wildlife, and migratory bird habitat; flood and erosion protection; nutrient and pollution filtration; ground water recharge; aesthetics and open space; and sites for educational and recreational activities. Wetlands are dynamic in that they are continually adapting to fluctuations in water availability and changes in flora and fauna populations. Threats to wetlands include dredging, damming, draining, channeling, filling, flooding, and using for dumping grounds.

Wetlands of particular significance in Weathersfield include:

*5.2.5.1 Jensen Meadow:* This is a large open emergent wetland that is often affected by beaver activity. The state drains the resulting pond when the water level gets too high, as it poses a threat to Route 106 and Airport Road. This site supports breeding wood ducks and is important for other waterfowl, muskrat, and beaver.

*5.2.5.2 Beaver Pond:* This is a large open water and emergent wetland, highly important locally as a waterfowl feeding and breeding area - an aesthetic resource. It is one of Weathersfield's most important natural areas and one of the largest wetlands.

*5.2.5.3 Downers Swamp:* There is red maple, white pine and tamarack; pussy willow, arrowwood, speckled alder, buttonbush and winterberry holly found in this significant wetland. It is the only wetland investigated by Thompson in which tamarack was recorded as a canopy tree. A family of virginia rails was spotted here in 2012 - a very rare occurrence.

*5.2.5.4 Camp Hill Wetland:* basin swamp (forested, shrub, and open wetland); it has no inlet or outlet with standing water in evidence throughout the growing season; it is a small and interesting place; it should be protected as other wetlands are, even though it is not mapped on the National Wetlands Inventory.

*5.2.5.5 Hoisington Field:* This wetland is important for its size; it also contains a diversity of wetland types.

*5.2.5.6 Kendricks Corner wetland:* This wetland is important because of its size and because it provides habitat for birds and other wildlife.

*5.2.5.7 Southeast of Beaver Pond:* A quality example of a mixed shrub and forested wetland. South of Beaver Pond: An alder swamp.

*5.2.5.8 New Road Swamp:* A privately-owned swamp adjacent to the Hartness Airport.

*5.2.5.9 Old Bow Road - Skyline Drive Pond:* This beaver pond is a large open water/wetland that stretches across the Weathersfield/Springfield Town line.

*5.2.5.10 Haskell Brook Wetland:* south of the Bow, it parallels RT. 5 to the west.

*5.2.5.11 Stoughton Pond Wetland:* sedimentation from the North Branch into the north end of Stoughton Pond is building this delta wetland.

### **5.3 Significant Scenic Resources**

Weathersfield's scenic resources are irreplaceable.

#### **5.3.1 Roads**

US Route 5 is a part of the Connecticut River National Byway, Vermont's only byway to receive national recognition. The Byway is a two-state byway spanning the east and west shores of the Connecticut River in both Vermont and New Hampshire. The Byway highlights history, a deeply rooted farming heritage culture, scenic beauty, and recreational opportunities. Preservation of these features is critical to maintaining the Byway's attraction ([ctriverbyways.org](http://ctriverbyways.org)).

VT Route 131 along the Black River in Cavendish is designated as a Scenic Highway. This designation continues into Weathersfield. The focus along this stretch of highway is the Black River. The focus continues to be the Black River from the Cavendish Town line to Downers, after which the focus becomes Mt. Ascutney. The designation should be continued to Goulden Ridge Road.

#### **5.3.2 Waterways**

The Connecticut River is part of the Connecticut River National Byway.

### 5.3.3 Views

Favorite scenic views currently identified are:

#### 5.3.3.1 Views of Mount Ascutney from:

- Route 131 near the Joe Stoughton house<sup>1</sup>
- the Weathersfield Center Road north of the Town line<sup>1</sup>
- Gravelin Road<sup>2</sup>
- Route 5 in the Bow<sup>1</sup>
- Thrasher Road
- 

<sup>1</sup> This view could be degraded by poor development in the foreground.

<sup>2</sup> This view could be lost to natural causes such as tree growth

5.3.3.2 *View from the Weathersfield Center Road, looking west, near the Hunter residence<sup>1,2</sup>*

5.3.3.3 *View from Skyline Drive at the height of the land, looking east<sup>3</sup>*

5.3.3.4 *View of the Center Church and grove<sup>4</sup>*

#### 5.3.3.5 *Views of the Black River and Black River Valley from:*

- *Reservoir Road, including view of Hawks Mountain*
- *Upper Falls Road Covered Bridge, upstream and downstream*
- *Tropical Storm Irene pulloff on Route 106, south of Downers*
- *Stoughton Pond Dam, including view of Stoughton Pond*

#### 5.3.3.6 *Views of Little Ascutney Mountain from:*

- *Route 106*
- *Ascutney Basin Road*
- *the height of land on Route 131 looking west*

5.3.3.7 *View of and from Cascade Falls, Weathersfield Trail, Mt. Ascutney State Park*

### 5.3.4 Important Historic Resources

As with any resource, increasing awareness and education of the town's historic and archaeological treasures is an effective way to preserve them for future generations. Original structures and sites are irreplaceable.

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<sup>3</sup> *Most of this view has been obscured by housing development in the foreground*

<sup>4</sup> *This land is part of the Weathersfield Center Historic District, which is listed on the National Register of Historic Places and is protected by the Upper Valley Land Trust.*

### 5.3.5 Structures

Important historic structures have been inventoried in the 1993 publication, *Historic Sites and Structures, Weathersfield, Vermont*. There are too many structures to be listed in the *Town Plan*. Sites and structures were included in the inventory because of their interesting architecture, their location(s) relative to Weathersfield or Vermont history, or their association with old Weathersfield families. They are also shown on the 1940 E.W. Butterfield map that depicts many of the early houses and mill sites in the Town."

The inventory was intended to become Weathersfield's portion of Vermont's Register of Historic Places. However, this has yet to become reality. It is important that these properties are placed on the state's register, because structures on the state's register are exempt from FEMA's requirement to be flood proofed in the event of substantial flood damage. The exemption prevents damaging the historic structure by the flood proofing.

When developing zoning bylaws, the town should consider means of encouraging the continued use and maintenance of historic structures.

### 5.3.6 Sites

Historic sites of particular significance are inventoried in the 1993 *Historic Sites and Structures, Weathersfield, Vermont*. Most sites are on private land and visitors may be welcome - provided they ask permission of the landowner in advance and agree not to remove anything from the site. Sites of particular significance to the Town are:

- 5.3.6.1 *Covered Bridges:*
  - Upper Falls Covered Bridge*
  - Salmond Covered Bridge*
  - Stoughton Covered Bridge*



*5.3.6.2 Crash site of a B-29 bomber:* This site is on the northeast end of Hawks Mountain is also of particular significance to the community

*5.3.6.3 Crown Point Military Road:* This road was created in 1759 during the French and Indian War. It is one of the earliest roads through town; many of the early settlement patterns and development of the Town are based upon its course. It is not only of local historic significance, but also of state-wide and Northeast regional significance. The road is used by townspeople, visitors, and members of the Crown Point Road Association and is maintained by the Town's Crown Point Road Committee under supervision of the Town Highway Supervisor. In 1974, portions of it were added to the National Register of Historic Places (#74000270). In 2010, it was added to the town's official highway map. While it is very important to preserve the town's legal public access to the undeveloped portions of the road, the town should also consider the concerns of abutting property owners and work with them to resolve access and use issues. There are remaining wooded sections that are vulnerable to development and disturbances - such as erosion and logging.

*5.3.6.4 The Lime Kilns and Limestone, Soapstone and Granite Quarries:* These sites date back to the 1830s and 1850s, when Weathersfield was an important mining location. There are seven known lime kiln locations, primarily situated around Downers Corners, Perkinsville, and Amsden.

*5.3.6.5 Cellar holes:* There are many cellar hole sites that may qualify as archeological sites.

*5.3.6.6 Historic Mills and factories:* There are several locations that have remnants of historic mills and factories.

*5.3.6.7 1879 Perkinsville Schoolhouse.*

*5.3.6.8 Weathersfield Bow Historic Buildings (Consul William Jarvis House, Lyman Tavern)*

*5.3.6.9 Panther Cave* Located off Route 106 south of Downers This is the site where one of the last panthers in southern Vermont was killed in 1867. The cave's location has been passed down by word of mouth over several generations. The mounted panther resides in the Weathersfield Historical Society's Dan Foster House Museum.

*5.3.6.10 Ashley's Ferry Landing* at the end of Ferry Road.

### 5.3.7 Districts

The Weathersfield Center Historic District is comprised of the Weathersfield Center Meetinghouse, the Reverend Dan Foster House, the town pound, and the memorial grove (which contains the civil war monument and the commemorative mill stone). The district is on the National Register of Historic Places (# 80000345, added 1980).

Wilgus State Park Historic District is on the National Register of Historic Places (# 02000282, added 2002).

### 5.3.8 Native American Archeological sites

There are no identified Native American archeological sites in Weathersfield, but the Weathersfield area is likely to have Native American sites and artifacts. Historical accounts report that an "Indian Trail" followed the west bank of the Black River through Weathersfield into Cavendish. A branch of this trail continued along the North Branch Brook into Cavendish. The Connecticut River also was an historically important travel corridor. Significant Native American sites have been investigated at the confluence of the Sugar River and Connecticut River across from Ascutney where a Native American village site was discovered when the present bridge was built between Ascutney and Claremont. The Skitchewaug site in Springfield VT has the remains of the earliest dated corn found in all of New England. If an artifact is found, it is important that it be left in place so that archaeologists may determine its context (burial, tool- making site, hunting camp, etc.)

### 5.3.9 Archeologically sensitive areas

Lands adjacent to water courses were used by earlier populations for fishing and hunting grounds, water supplies, agriculture, and transportation. These lands may yield archeological artifacts and should be considered sensitive.

## **5.4 Important Land Resources**

### **5.4.1 Rural Countryside/Working Landscape**

Weathersfield is fortunate in the natural beauty of its varied scenery. The traditional working landscape, the result of Vermont's agricultural heritage, can be seen in open pastures surrounded by woodlands, the undeveloped hillsides and ridgelines, and the picturesque roads lined by mature trees and old stone walls. These attributes give the town its distinctive rural character and reflect the values of a community closely associated with its land. Weathersfield's wildlife habitat, outdoor recreational resources, and much of its scenic beauty depend on the intermixing of forests with field and pasture land, and the generosity of landowners who protect and allow public access to this property.

While residents agree on the importance of protecting and preserving Weathersfield's scenic beauty and rural character, these very attributes are often the source of conflict. Pastures return to brush and woods if not actively maintained; mature trees conflict with power lines and road ditching; road grading often damages or buries stone walls; new driveways interrupt stone walls and tree lines; and logging and development pose hazards to forests.

The Weathersfield Land Preservation Association, a non-profit organization, was formed by residents in 2002 with the goal of facilitating land conservation.

### **5.4.2 Important Farmlands**

Farmlands support a local farm economy, produce local foods, maintain rural character, and facilitate future agricultural activities. Important farmlands include active farms as well as protection of valuable agricultural soils.

Since farmland often has flat topography with good soils, drainage, and access, it is highly vulnerable to development. Prime agricultural soils should be prioritized for protection.

The Town must consider four recent developments in local agriculture as it develops plans that allow for appropriately-scaled agricultural activities throughout the Town.

First, dairy farming is no longer significant in the Town. According to Vermont's Department of Agriculture, dairy farms throughout the state have dwindled in number from 1,565 in 2001 to 993 in 2013. Weathersfield in 2017 supports no dairy farms, compared to 8 in 1980, 18 in 1969, 36 in 1963, and 65 in 1953.

Second, although Weathersfield has no remaining dairy farms, there is a growing diversity of other large-scale locally operated farms including a beef farm, an alpaca farm, a large vegetable CSA (Community Supported Agriculture), and a commercial apple orchard.

Third, there has also been an increase in small-scale family farms with families keeping a number of goats, sheep, chickens, turkeys, and milk or beef cows.

There are blueberry and Christmas tree growers as well as a number of residents who grow and sell hay and forage crops. There has also been an increase in maple syrup production. Often these farming activities are a supplemental, not primary, source of income. Weathersfield should embrace this small-scale agriculture as an important economic driver and aim to protect, conserve, and expand existing agricultural businesses and lands.

Fourth, there is growth in the use of large-scale agricultural equipment and fertilizing techniques. The Town must consider the impact of these activities on, for example, rural roads and neighborhoods. Prime agricultural soils should be prioritized for protection.

#### 5.4.3 Forests

Weathersfield land cover is predominantly forestland. Of particular significance are the state owned Little Ascutney Wildlife Management Area and the Mount Ascutney State Park. Approximately 500 acres of the park's total 3,131 acres are in Weathersfield. These are important forested lands. The Town also owns 300 acres of forested land off Thrasher Road on the south slope of Mt. Ascutney and approximately 45 acres around the transfer station. Large, contiguous blocks of forestland connected by travel corridors are relied upon by large mammals such as moose, bear, deer, and bobcat, as well as a variety of songbird species for food, shelter, breeding grounds, and migratory stopovers. These large blocks of undisturbed forest land also provide habitat for a wide variety of smaller wildlife species. They require protection from fragmentation, human encroachment and poor management practices.

One commercial sawmill facility exists in Perkinsville and several portable sawmills are operated throughout Weathersfield, as are several large and many smaller sugaring operations. Other forest-related businesses include a number of wood workers who use locally processed timber and tree farms that grow Christmas trees and nursery stock.

In Vermont's Use Value Appraisal (or Current Use) Program, enrolled land is taxed at its "use value" rather than at its development or fair market value, providing an effective incentive for landowners to manage their lands for forest or agricultural purposes. A quarter of Weathersfield's total land area is enrolled in this program, with the majority classified for forestry purposes. Large, contiguous areas managed in this way provide critical habitat areas and wildlife corridors - while preserving agricultural and forest resources.

Of the ten towns in the Southern Windsor County Region, Weathersfield stands out as having the one of the highest percentages of conserved land. Open space may also be preserved through fee simple acquisition by local, state, or federal government or through the sale or donation of development rights to local government or a nonprofit conservation organization.

#### 5.4.4 Earth Resources (sand, gravel, minerals, rocks)

Earth resources are used for building construction, road improvement, drainage, and for export. Earlier in its history, Weathersfield was a source of limestone, granite, and soapstone. Limestone was mined in several locations, but primarily in and around Amsden, where the stone was processed by the Amsden Lime Works. The Amsden Lime Works was a significant operation for its time. Soapstone was quarried until 1910 by the Vermont Soapstone Company in Perkinsville. Currently, the only active extraction operations in the Town are for sand, gravel, and crushed rock (Cersosimo and Walsh in Amsden; Brown in Perkinsville, and the Town of Weathersfield in the Bow).

Mineral extraction that is excessive or poorly managed can permanently damage natural and aesthetic resources, affecting groundwater quality, destroying archaeological sites, and displacing wildlife.

Mineral and earth resources extraction over 10 acres or above 2,500 feet in elevation requires an Act 250 permit. These operations can result in noise, dust, heavy truck traffic, and negative impacts on local aesthetics that often trigger challenges by property owners.

The following shall be considered:

5.4.4.1 No serious road traffic or transportation infrastructure damages.

5.4.4.2 No undue adverse effects such as noise, water, or air pollution.

5.4.4.3 The operation site is either well-hidden from view or is worked a small section at a time - with each section rehabilitated with topsoil and successful seeding before the next section is more than 5% extracted, until the whole area is reclaimed.

5.4.4.4 A bond is posted for a sum sufficient to assume the cost of rehabilitation of the amount of land permitted to be in process at any one time.

5.4.4.5 The applicant submits ample proof that the operation will not harm the surroundings through erosion or sedimentation during or after extraction.

5.4.4.6 No significant Tiers 1 through 3 wildlife habitat, wetlands, and rare endangered or threatened species will be disturbed.

#### 5.4.5 Steep Slopes

Many areas of Weathersfield have steep slopes with soils that are unstable, shallow and/or wet. Potential for severe erosion should be considered when evaluating these areas for development. If shallow soils are disturbed, the potential for severe erosion is great and natural healing processes are often unable to stop it. Unstable soils are not suitable for roads or building foundations. Developing land with slopes greater than 25% is inappropriate. Steep roads are difficult to maintain and hard to negotiate in the winter.

### 5.5 Air Resources

Weathersfield generally enjoys good air quality. Threats to the town's air quality include internal combustion engines, the Green Mountain Power emergency generating station, wood and coal burning stoves, and the illegal open burning of trash. In addition, Vermont is the unwilling recipient of air pollution and related acid rain deposition from mid-west power plants and industry.

### 5.6 Invasive Species

Invasive species are non-native species (e.g. Japanese knotweed, Eurasian milfoil, purple loosestrife, etc). These invasive species are disruptive in a way that causes environmental, economic harm or (in the case of giant hogweed) harm to human health. Invasive species include plants, insects, animals, microbes, and fungi and displace native species by altering the way in which plants, animals, soil, and water interact within native ecosystems.

These invasives may be particularly detrimental to rare, threatened, and endangered native species that often require specialized environments to ensure their survival. Recreational opportunities may also be impaired by the proliferation of invasive species. They are especially problematic in areas that have been disturbed by human activities such as road building, land development, forest clearing, logging operations, mowing, and erosion control and fire prevention activities. More care must be taken in these situations to prevent an invasion of the area by invasive species or to prevent the spread of invasive species that may already be present.

Recommendations for addressing invasive species may be found at [www.ytinvasives.org](http://www.ytinvasives.org).

### 5.7 Natural, Scenic, and Historic Resources Goals

5.7.1 Identify, protect, and preserve important natural and historic features of our community landscape, including:

5.7.1.1 Rare, irreplaceable, and significant natural and fragile areas;

5.7.1.2 Outstanding water resources, including lakes, rivers, aquifers, shore lands/stream banks/riverbanks;

5.7.1.3 Significant scenic roads, waterways, and views;

5.7.1.4 Important historic structures, sites and districts, archaeological sites, and archaeologically sensitive areas.

5.7.2 Maintain and improve the quality of air, water, wildlife, and land resources.

## **5.8 Natural, Scenic, and Historic Resources Policies**

5.8.1 All information regulating land use shall be readily available to the public in general form, giving due consideration to the sensitivity of detailed location information of endangered species and archaeological sites.

5.8.2 Prioritize public land conservation efforts within Biofinder Tiers 1-3 Conservation Areas.

5.8.3 Biofinder Tiers 1-3 are the highest priority natural and fragile areas subject to the following policies:

5.8.3.1 BioFinder Tiers 1 through 3 shall be shown on site plans where applicable

5.8.3.2 Rare and endangered plants and animals and their habitats will be protected and preserved according to a plan developed by the landowner in consultation with the Weathersfield Conservation Commission and the Vermont Natural Heritage Program.

5.8.3.3 The *Biological Natural Areas of Weathersfield* priority sites will be shown on site plans where applicable. Developments will be sited carefully so as to avoid undue adverse impacts on these priority sites.

5.8.3.4 Wetlands will be protected from development by maintaining an undisturbed buffer strip of naturally occurring vegetation around the wetland edge in accordance with the Zoning Bylaws. No development shall be permitted within the wetland or in this buffer zone.

5.8.3.5 Protective buffer strips or setbacks shall be established or maintained along the borders of all bodies of water in accordance with the Zoning Bylaws or State law as applicable.

5.8.3.6 Fragmentation of Biofinder Tiers 1-3 Conservation Areas shall not be approved.

5.8.4 Promote voluntary landowner programs to help conserve private forestlands for habitat and working landscape activities, such as private conservation easements, the Use Value Appraisal (Current Use), and Forest Legacy programs.

5.8.5 Biofinder Tiers 5 Conservation Areas should be managed to preserve the functionality of the existing large contiguous forest habitat blocks and connecting areas that serve as wildlife habitat corridors. In order to achieve that, the following policies will apply:

5.8.5.1 Habitat blocks of 500 acres or greater in size shall be shown on site plans where applicable.

5.8.5.2 Development will be designed and sited in locations, patterns, and densities, which do not substantially reduce the productivity or fragment the area of these lands. Highway, utility, or building construction on the edges of these lands is recommended, unless historic sites, wetlands, or other sensitive areas are threatened by such development.

5.8.5.3 Building envelopes, planned unit developments (PUDs), or other innovative site designs may be required to minimize undue adverse impacts on these areas.

5.8.5.4 An analysis prepared by a qualified scientist may be required to evaluate impacts on wildlife habitat and to identify any necessary mitigation steps.

## **5.9 Natural, Scenic, and Historic Resources Recommendations**

5.9.1 Update the 1992 *Biological Natural Areas of Weathersfield, Vermont*.

5.9.2 Expand on the Thompson inventory to include all of the town's rare, threatened, and endangered species and all significant natural communities as identified on the State of Vermont Agency of Natural Resources Biofinder map and database (biofinder.vt.gov)

5.9.3 Develop a supplemental forest and wildlife conservation plan that will:

5.9.3.1 Map significant forested areas, wildlife habitat areas, and wildlife travel corridors within the town.

5.9.3.2 Create strategies for preservation of these resources and prevent detrimental fragmentation.

5.9.3.3 Create zoning standards for preservation of these resources.



5.9.3.4 Inventory and map the town's archaeological sites and archaeologically sensitive areas.

5.9.3.5 Pursue "Scenic Highway" designation for Route 131 from the Cavendish town boundary to Goulden Ridge Road.

Pursue designation of the North Branch and the Black River as "Scenic Waterways"

5.9.3.6 Encourage owners to place eligible buildings on the National Register of Historic Buildings.

5.9.3.7 Create development standards to prevent irreparable harm to the Town's aquifers

5.9.3.7.1 Surface waters

5.9.3.7.2 Scenic viewsheds

5.9.3.7.3 Scenic waterways

5.9.3.7.4 Calcareous riverside outcrop in the Bow

5.9.3.7.5 Work with the VT Agency of Natural Resources to identify policies and actions that will maintain and improve water quality activities that are appropriate for Weathersfield for inclusion in the Tactical Basin Plan.

5.9.3.8 Protect the Crown Point Road by:

5.9.3.8.1 Designating the Crown Point Military Road as a "special status road" with the goals of historic preservation and protection of landowners' rights.

5.9.3.8.2 For the remaining wooded sections of the Crown Point Military Road, create methods to protect the historic nature of the road by restricting activities such as building construction, driveway and road construction, logging, and other permanent alterations within the protected area.

5.9.3.9 Create or repair vegetative buffers on rivers and streams

5.9.3.9.1 Consider and adopt shoreline protection and encourage retention of riverbank vegetation for its role in limiting boat wake erosion and protecting water quality.

TOWN OF WEATHRSFIELD

*ADOPTED MAY 1, 2017*

**5.9.3.9.2** Encourage landowners along rivers and streams to retain and enhance buffers of vegetation on their banks to help bind soil together.

**5.9.3.9.3** Support agencies and organizations sponsoring major buffer restoration.

## EDUCATION

Education has been a community priority since the earliest days when learning was viewed as instrumental for economic activity and meaningful civic engagement. Education today means much more than those historically important topics of reading, writing, and arithmetic. Education may be in a structure-based classroom setting or self-directed, away from the school and embedded in the community. Education is local, regional, statewide, and now everywhere via web-based distance learning programs. Most importantly, education is for all ages - beginning in early childhood and continuing to adult based career and life skills training. For the individual, education serves as a foundation for a rewarding life. For the town, education has a strong relationship with the community's future economic and social prosperity. This chapter addresses our town's education resources and articulates long-range community priorities. The subheadings divide our education topics primarily based on age cohorts.

Unless otherwise indicated in this Chapter, the existing educational facilities in Weathersfield are considered adequate to serve the community's anticipated needs over the next ten years.

### 6.1 Early Childhood Education

Vermont's new Universal Pre-Kindergarten Law, Act 166, starts on July 1, 2015 and is the new law that requires all 3, 4, and 5 year olds to have access to a pre-qualified educational program of their parents' choice. This new law requires that school districts pay tuition for young children to attend an educational program for a minimum of 10 hours of instruction a week for 35 weeks. School districts are required to partner with existing pre-qualified early education programs, such as center based child care programs, home-based child care programs, Head Start classrooms, and private providers. The new law calls for the development of a consistent statewide tuition rate for pre-K education - although that has not happened to date and may not happen prior to the 2015-2016 budget process. Additionally, this new law will also impact the Windsor Southeast Supervisory Union Early Childhood Program's ability to access Title 1 federal funds to support our existing pre-school program. This means that local schools in the Windsor Southeast Supervisory Union will be obligated to fund more of the Early Childhood Program through their local school budgets, yet another additional cost to local taxpayers. Schools in Vermont are awaiting additional guidance from the Vermont Agency of Education. Although educating young children, 3 to 5 years in age, is wonderful for a myriad of reasons, it is nonetheless an additional expense for local school budgets.

Preschool children in Weathersfield are served by a number of local facilities and programs. The Springfield Area Parent Child Center (SAPCC) provides a wide range of activities, ranging from parenting classes to onsite childcare to home visits. In 2011, the SAPCC moved into their new facility, an approximately 12,000 square foot facility located in North Springfield. Fifty Weathersfield families were served by the SAPCC in 2013. Windsor County Head Start is a federally funded program offered through Southeastern Vermont

Community Action (SEVCA) serving low income families with children 3-5 years old. The program offers comprehensive developmental services for children and families with an emphasis on health, nutrition, education, and parental involvement. The program's locations near Weathersfield include Chester, Springfield, and Windsor. Unfortunately, space is limited for both of the above-mentioned programs.

## **6.2 Elementary School Education**

Between 1954 and 2008, Weathersfield was served by the two schools: the Weathersfield Elementary School (WES), a grade K-3 facility in Perkinsville, and Weathersfield Middle School (WMS) a grade 4-8 facility in Ascutney. However, starting in the 2008-2009 school year those schools were combined to form the Weathersfield School in Ascutney Village. This transition required a significant amount of financing and the associated debt incurred by the Town of Weathersfield has hindered its capacity for new educational undertakings.

The new consolidated school, with 54,000 square feet, provides an additional 22,750 square feet of space that has helped to address the space limitations of the past. Additionally, the new school has a wood chip furnace that, despite the increase in space, has resulted in significant cost savings.

As a part of the Safe Routes to School Program, a school travel plan was prepared for the Weathersfield School. The plan was finalized in July of 2010 and contained several recommendations designed to improve pedestrian and bicyclist safety and access to the school. The school continues to celebrate National Walk to School Day two times every year, in October and May, using the alternate walking route established. Very few students currently walk or ride their bikes to and from school, but pedestrian and bike safety is taught as a part of the physical education curriculum.

The parking area at the former Perkinsville School building has been expanded and re-graded. Permanent power has been installed to the 1879 building, which the Town owns, and the drainage issue behind the building has been corrected. Additionally, field space at the site has been significantly expanded and a bus shelter installed. This area still remains a valuable recreational resource for the Town.

Starting in the 2014-2015 school year, the Windsor Southeast Supervisory Union Central Office assumed responsibility for the operation of transportation for the Weathersfield School.

## **6.3 High School Education**

Weathersfield School operates a K-8 school, but does not have a local designated high school. Students in grades 9-12 have school choice for high school. This allows parents to designate the independent or public high school of their choice – but the school district is responsible for paying the state-wide average tuition cost. In 2016-2017, approximately 20 students attending eight other Vermont public or private high schools. The tuition rates

vary from neighboring school districts by over 40% depending on the high school. The local school is required to build their school budgets on tuition projections, but the actual costs are not realized until students start the school year at their choice school. This is not the case for towns that have a designated high school. High school choice has become burdensome for smaller schools in the state. High school choice is also an amenity that attracts and retains families to our community. High school choice allows parents to make their own decisions about what best meets their child's educational needs.

The total K-12 student population of the Town has declined since the mid-to-late nineties when the average ranged between 425–450 students. There has recently been a slight rise in student enrollment - increasing from 319 students (2010-11) to 340 students (2013-14).

#### **6.4 Non-Classroom Based Education**

Some residents in town choose to homeschool their children. This is a clear minority who make this choice. In the last few years, fewer than a dozen students each academic year have been homeschooled. It is Weathersfield School policy to allow these students to participate in activities such as physical education, art class, sports programs, and music classes.

There is also increasing interest for hands-on, place-based learning that capitalizes upon the town of Weatherfield's rural, agricultural, and conservation-based heritage and economy. This form of experiential education involves taking children out of a classroom and placing them into apprenticeship-styled training programs that may be on farms, repair shops, and other places that required a skilled workforce. The town of Weathersfield desires to enhance the cooperation between the Weathersfield School and area businesses that could sponsor place-based educational opportunities for students. There should also be connections with civic groups and organizations that could bring a greater community focus to class-based curriculum such as local history and geography.

The Weathersfield Proctor Library is the town's public library and is an important facility for community-based educational services. The collection of books, periodicals, and newspapers is extensive for a small-scale, rural library. The library has public computers and wireless high-speed internet service. Most importantly, library patrons have access to librarians who are well-trained information management specialists. The library is a resource that connects the Weathersfield School to the town and encourages the educational interactions among school children, their parents, and the community at large. Consideration should be given to an enhanced operational and programmatic integration of the school and library. The library has recently added a fully accessible entrance and bathroom facilities and is scheduled to further expand its access and space utilization capacity in 2017.

The Weathersfield Historical Society maintains the Reverend Dan Foster House and Museum that is located in the Weathersfield Center Historic District. The museum provides access to a permanent collection of local and state historical resources. In

addition to the permanent collection and special exhibits, there are museum curators and archivists/librarians who will help aspiring student historians and researchers. The Historical Society and the Dan Foster House are resources that enhance the educational mission of the school while affording children a greater, hands-on, appreciation for their local history.

## **6.5 Adult Education**

A number of regional resources are available for the adult learner. In addition to the many resources available online, there are local, in-person educational opportunities for those who would prefer them. For adults working for the GED or to improve their literacy or math skills, Vermont Adult Learning provides classes and individual tutoring at its Springfield office. The River Valley Technical Center is located in the Howard Dean Education Center in Springfield. The facility can serve over 450 students for at least one period of course work per day and provides services for 600-1,000 adults in the southern Windsor County region. Services include a job training program which is contracted through Vermont Technical College. Also, located in the Howard Dean Education Center are the Community College of Vermont's Springfield Office, VT Interactive TV, and UVM Extension. Furthermore, Antioch University, located in Keene, NH, offers a variety of undergraduate and graduate degree programs.

## **6.6 Education Goal(s)**

6.6.1 To ensure that all residents of Weathersfield have access to high-quality educational opportunities and services in facilities that meet or exceed state standards.

## **6.7 Education Recommendations**

6.7.1 Review Weathersfield's Safe Routes to School Travel Plan for possible implementation.

6.7.2 Plans to expand the Proctor Library in Ascutney should consider the needs of the Weathersfield School and ways to improve the connection between the two institutions.

6.7.3 The Town should ensure that all available non-classroom resources with educational value are utilized. Examples include the Historic Crown Point Road, the Dan Foster House, and the Historical Society.

6.7.4 The Town should consider owning a school bus for field trips, sporting events and other Town events.

## ENERGY

### 7.1 Introduction

We all use energy in many forms to conduct our daily lives. That energy may come from local sources or be imported from outside the town. Either source may be renewable or non-renewable. Renewable energy comes from sources that are naturally replenished and include biomass (wood, corn, grasses, and vegetable oil), the sun (solar), wind, the earth (geothermal), water (hydro), or cow manure (methane digesters - “cow power”). Non-renewable energy is produced from sources that cannot be renewed by human activity or within the human time scale. These include oil, natural gas, uranium, and coal.

Weathersfield is heavily dependent upon imported, non-renewable sources to meet its energy needs. This chapter provides an analysis of our energy resources and needs, as well as energy scarcity, conservation, costs, and problems in our community.

7.1.1 The overall purpose of this energy plan is to provide decision-making guidance to:

- 7.1.1.1 Weathersfield Town Government
- 7.1.1.2 Residents of Weathersfield
- 7.1.1.3 Weathersfield Business and Agricultural Community
- 7.1.1.4 Agency of Natural Resources in the Act 250 permit process
- 7.1.1.5 Public Service Board in the Act 248 permit process
- 7.1.1.6 Southern Windsor County Regional Planning Commission

7.1.2 In addition, this plan seeks to:

- 7.1.2.1 Help the town identify ways to conserve energy in its municipal functions,
- 7.1.2.2 Identify alternative sources of energy that are suitable for the town and that promote a balance between economics and pollution reduction,
- 7.1.2.3 Encourage the town’s residents to conserve energy, and
- 7.1.2.4 Encourage development of appropriately-scaled renewable energy resources

### 7.2 Analysis of Energy Resources in Weathersfield (renewable resources)

Few households in town generate power or heat with small non-wood renewable energy systems. Weathersfield as a whole does not produce any significant amounts of non-wood renewable energy. However, the town has the potential for energy generation from any of the following renewable resources; biomass, geothermal, hydro, solar, and wind.

The Vermont Online Energy Atlas ([www.vtenergydashboard.org/energy-atlas](http://www.vtenergydashboard.org/energy-atlas) as of 2016) is an excellent source of information regarding the availability and potential production of renewable energy resources in Vermont.

**7.2.1 Biomass:** The term “biomass” includes bio-diesel, perennial grasses, methane digesters, waste to energy, firewood, and woody biomass.

**7.2.1.1 Bio-diesel:** Bio-diesel is a type of fuel made from vegetable oils, animal fats, or waste cooking oil. It may be used in its purest form or combined with petroleum diesel. It is biodegradable, nontoxic, far less polluting than fossil fuels and may be used in ordinary diesel engines with little or no modification. Bio-diesel may also be produced from waste cooking oil. There are several restaurants in Weathersfield that could provide small amounts of waste cooking oil for conversion to bio-diesel. Any biodiesel use in Weathersfield is by private users; no figures are readily available.

**7.2.1.2 Vegetable oils:** Vegetable oils are derived from oilseed crops such as mustard, rapeseed, or sunflowers. There are no oilseed crops being produced in Weathersfield nor are there the facilities within a reasonable distance to convert the seeds to bio-diesel.

**7.2.1.3 Woody Biomass:** Wood is used in a variety of forms to provide heat or to generate electricity. In the simplest form, wood from trees is split and sold for firewood for wood- burning stoves and furnaces in home heating. The Weathersfield School uses wood chips to heat the school. Wood pellets are also a popular way to provide home heating.

Studies show that burning woody biomass to generate heat is far more efficient than burning it to generate electricity. Additional challenges to using woody biomass for energy production on a large scale are truck traffic (large logging trucks), waste heat (if the biomass is used for electricity production), and carbon dioxide emissions.

According to the Atlas, there are 12,412 acres of wooded land in Weathersfield with an annual potential yield of 5,763 tons of available low grade wood (0.464 tons Net Available Low Grade Wood (NALG)/acre x 12,412 acres = 5,763 tons of NALG wood). Logging should be done according to acceptable practices.

**7.2.1.4 Perennial Grasses:** There are problems associated with the burning of perennial grasses that must be taken into consideration when considering this fuel source. No perennial grasses are currently being grown in Weathersfield for energy use.



**7.2.1.5. Methane Digesters:** According to Green Mountain Power (GMP), Cow Power, “one cow can produce about 30 gallons of manure a day which, in turn, can generate enough electricity to power two 100-watt incandescent light bulbs for 24 hours. The waste from 4-6 cows will generate about 1 kw of electricity.” (VT Renewable Energy Atlas) Weathersfield has a number of various types of livestock in town - but no working dairy farms. There are currently no methane digesters in the town.

**7.2.2 Geothermal:** “Geothermal, or ground source heating, is the direct use of energy absorbed from the sun at the earth’s surface, and supplemented from the earth’s core. Modern geothermal heating and cooling systems rely on the stable temperature of the earth (55 degrees Fahrenheit), or groundwater in a well, along with an electric heat pump. This technology is not currently financially feasible in Weathersfield.

**7.2.3 Hydro:** There are three potential sites in Weathersfield for hydroelectric power - Stoughton Pond, Springfield Reservoir, and the Soapstone Dam on the Black River. The Vermont Energy Atlas estimates they have the potential to produce a total of 207 kW of power.

With the abundance of streams in Weathersfield, micro hydro-power (run-of-river) is another alternative that should be considered. Micro hydro-power generation requires as little as two gallons per minute of stream flow and does not require the usual reservoir associated with standard hydro power projects. Peak power production is in the winter when electricity demands are high.

Installation costs and maintenance fees are relatively small in comparison to other technologies. ([www.alternative-energy-news.info/micro-hydro-power-pros-and-cons/](http://www.alternative-energy-news.info/micro-hydro-power-pros-and-cons/))

**7.2.4 Solar:** Solar energy may be used to generate electricity or thermal heat. It may be stored on-site using batteries or sent to the grid via net-metering. Solar hot water does not require batteries or net-metering. There are an increasing number of net-metering sites in Weathersfield.

**7.2.5 Wind:** According to the U.S. Department of Energy Wind Program and the National Renewable Energy Laboratory, areas with annual average wind speeds of 21.3 ft/s (or 14.5 mph) and greater at a height of 262 feet are suitable for wind energy development. Their map shows the wind speeds in Weathersfield at this height average 16.4 ft/s (or 11.1 mph) and below. ([www.windpoweringamerica.gov/wind\\_resource\\_maps.asp?stateab=vt](http://www.windpoweringamerica.gov/wind_resource_maps.asp?stateab=vt))

The Vermont Department of Public Service has published a map of wind resources at 98 feet for the state. ([www.northeastwind.com/resources](http://www.northeastwind.com/resources)). This map indicates Class 2 sites (17.1 – 19.4 ft/s or 11.6 – 13.2 mph) on Little Ascutney Mountain and in a small area southeast of the end of West Camp Hill Road. According to the U.S. Department of Energy, these wind speeds are insufficient for the generation of significant amounts of electricity.

7.2.6 Heat pumps: An increasing number of air source cold-climate heat pumps are being used in the town as a highly efficient source of heat and air conditioning.

7.2.7 Summary of Renewable Resources: In summary, it appears that there are several ways that Weathersfield residents and the town government could reduce their non-renewable, imported energy dependencies through the development and use of locally produced, renewable energy fuels.

7.2.8 All development of renewable energy in Weathersfield should be consistent with land use, conservation, and other goals described elsewhere in this plan.

### **7.3 Analysis of Energy Resources in Weathersfield (non-renewable resources)**

Fuel oil and propane for home heating, cooking, and hot water are delivered to Weathersfield residents from commercial sources outside the Town. The only reserves for home heating fuel in the Town are the storage tanks on municipal and private property.

Transportation is fueled primarily with gasoline or diesel fuel that is likewise imported to the Town by various distributors in the area. The only storage facilities in Town for any of these energy resources are the gasoline storage tanks at the gas stations in Town and the storage tanks at the Town garage and at some commercial and residential locations.

Electricity is brought to the majority of Weathersfield homes and businesses via the “grid.” The electricity traveling in the grid is produced from both renewable and non-renewable sources. The Town is crisscrossed by numerous distribution and transmission lines belonging to both VELCO and GMP. The substation in Ascutney was upgraded to a newer design that will be more reliable than the previous design.

### **7.4 Analysis of Energy Scarcity and Needs in Weathersfield**

#### **7.4.1 Scarcity**

Weathersfield does not have any local sources of non-renewable energy. The scarcity or abundance of non-renewable sources is entirely dependent on factors beyond the town.

Weathersfield has a variety of local sources of renewable energy, as discussed in detail in Section 1.2 above. The scarcity or abundance of renewable energy will depend on the extent of the development of these renewable sources.

#### **7.4.2 Needs**

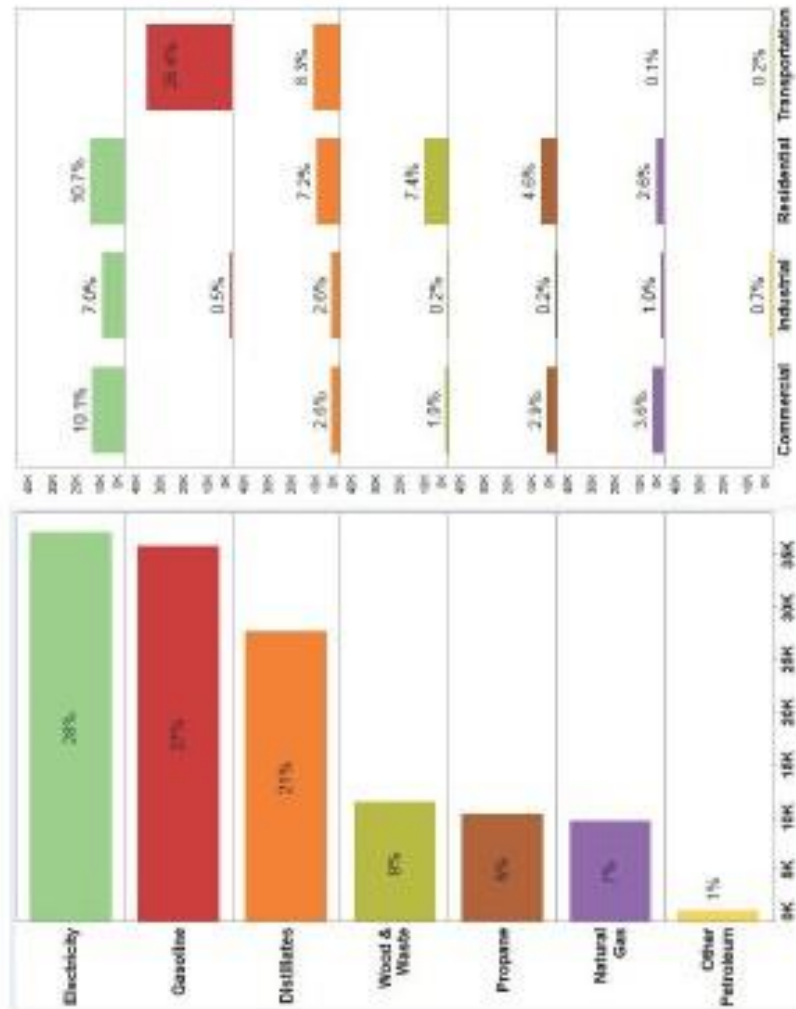
Detailed numbers are not available for types of energy consumption in the Town of Weathersfield. However, Weathersfield is typical of Vermont, and figures for the entire

TOWN OF WEATHRSFIELD

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state are available from the 2016 Comprehensive Energy Plan of the Vermont Department of Public Service.

*A chart from the Comprehensive Plan appears on the next page.*



Sources: U.S. Energy Information Administration, State Energy Data System; Vermont Department of Public Service

Notes: *Primary energy consumption* is a measure of energy consumption that includes the source energy required to produce the electricity consumed by end-users. This is a more inclusive measure of energy consumption than *site energy consumption*, which does not count the energy lost in conversion of source energy into electrical power. The distinction between source and site electrical energy consumption definitions is further detailed in section 4.1.1. Gasoline totals shown here include ethanol.

Table 4.1 from p. 28 of *Comprehensive Energy Plan of 2016*

## **7.5 Analysis of Energy Costs**

To provide a complete or accurate analysis of energy costs, the town must establish a baseline of energy costs from municipal buildings, vehicles, and operations and diligently maintain the database so as to determine where energy costs may be stabilized or reduced.

Cost savings may be realized from:

7.5.1 weatherization of buildings

7.5.2 energy efficient lighting

7.5.3 heating and air conditioning changes to more efficient mechanisms, such as air source cold climate heat pumps

7.5.4 conservation measures (reduction in use)

7.5.5 fuel-efficient vehicles

7.5.6 analysis of town vehicle operations.

## **7.6 Analysis of Energy Problems in Weathersfield**

The primary energy problems in Weathersfield are dependence on energy from outside the Town and less efficient older homes.

Problems could arise in the future as a result of energy projects. The town should promote future energy projects, but also the carefully review the impact of energy projects on costs, aesthetics, natural resources, and the environment.

There are specific areas where the Town's residents would not like to see overhead transmission lines. They are:

7.6.1 View of Mount Ascutney:

- from Route 131 near 9 Little Ascutney Road (formerly the Joe Stoughton house)
- from the Weathersfield Center Road near 478 Weathersfield Center Road (the Kamel residence)

7.6.2 View from the Weathersfield Center Road, looking west, near 2811 Weathersfield Center Road (Hunter Press)

7.6.3 View from Skyline Drive at the height of the land, looking east

7.6.4 View of the Center Church and grove

## **7.7 Policy on the Development of Renewable Energy Resources**

7.7.1 All energy projects, including renewable energy projects and transmission lines, shall be sited according to an analysis of the following criteria:

7.7.1.1 the size of the project

7.7.1.2 the type of project

7.7.1.3 visual impact, with special attention to scenic resources and the neighborhood

7.7.1.4 impact on natural resources, such as wildlife, vegetation, agricultural soils and water

7.7.1.5 impact of sound on neighbors

7.7.1.6 financial impact on town budget, town economy, taxpayers, and consumers

7.7.1.7 impact on public health and safety

7.7.2 To implement this policy, the town will:

7.7.2.1 adopt zoning by-laws to regulate the siting of energy projects according to size and type;

7.7.2.2 monitor state and federal regulatory proceedings regarding energy projects and actively participate in such proceedings, where appropriate;

7.7.2.3 monitor changes in state and federal law and, as such changes occur, promptly update the *Town Plan* and zoning by-laws to maximize the impact of the town's policies on state and/or federal proceedings.

## **7.8 Energy Recommendations**

7.8.1 Energy Conservation Recommendations

Weathersfield will strive to conserve energy as follows:

7.8.1.1 Maximize energy efficiency in existing municipal buildings and operations, including weatherizing, researching renewable energy systems for the municipality, and developing long-term efficiency plans for Martin Memorial Hall, the town garage, Proctor Library, and Weathersfield Transfer Station.

7.8.1.2 Consider energy efficiency in all aspects of transportation planning including purchases of vehicles.

7.8.1.3 Make available information to residents and businesses to educate them to save energy.

7.8.1.4 Adopt policies and guidelines that encourage energy lighting standards throughout the town.

7.8.1.5 Encourage the use of alternative-fueled vehicles, carpooling, and public transportation.

7.8.1.6 Use energy audits for all municipal buildings to identify, prioritize, and schedule installation of energy efficiency measures.

7.8.1.7 Encourage weatherization programs, such as those for residences and businesses.

7.8.1.8 Encourage the town and school libraries to expand and regularly update their collections of energy publications.

7.8.1.9 Encourage the use of renewable resources through local demonstrations of innovative energy installations and other similar means.

7.8.1.10 Develop a public disaster plan which includes energy related emergencies, e.g. what to do in case of power outage or a fuel outage.

7.8.1.11 Promote opportunities and/or programs that encourage or assist in increasing energy efficiency.

7.8.1.12 New residential construction should comply with the Vermont Residential Building Energy Code. The town should encourage energy efficiency in all new construction of heated spaces.

7.8.1.13 Allocate funds for Energy Reserve Funds for improving efficiency.

7.8.1.14 Investigate and plan for a renewable energy installation to create a net zero electricity utility bill for all its municipal accounts.

7.8.1.15 Encourage electric car charger stations.

## 7.8.2 Renewable Energy Resource Development Recommendations

7.8.2.1 Weathersfield strongly advocates the development and use of renewable energy resources so long as there is a balance between the costs of the renewable energy, the pollution its development or use may create, the aesthetics of its presence in the community, its impact upon the community's natural resources, and its impact upon the environment of the community and surrounding region.

7.8.2.2 Consider the adoption of local bylaws under 24 V.S.A. §4414(15) to ensure the proper screening of ground-mounted solar projects.

7.8.2.3 Commercial energy projects shall follow the "Standards for Section 248 Proceedings" in Chapter 4 "Utilities and Facilities, Sec.4.13.

### **7.8.3 Land Use Energy Conservation Recommendations**

The Land Use Chapter seeks to promote land use development patterns that are more likely to result in energy conservation. Through the future land use map and corresponding category descriptions, Weathersfield will advocate:

7.8.3.1 Utilizing land use planning to influence development patterns and site design in an energy efficient manner;

7.8.3.2 Promoting compact, land-efficient forms of development by emphasizing development in the villages.



## HOUSING

According to the U.S. Census, the population of Weathersfield has increased from 2,788 in 2000 to 2,825 in 2010 (1.3%). Although the numbers have continued to increase over the last 30 years, the data reflects substantially diminished growth from that experienced during the 1970s. This slower growth is most likely due to the loss of manufacturing jobs in the region during that time.

The number of households in Weathersfield has increased by 9% since 2000. A 5% increase in total housing units could be linked to a decrease in seasonal, recreational, or occasional use units that have been converted to year-round housing units. The data also reveals that Weathersfield has more householders that are non-family, living alone, and over the age of 65 than ten years before.

Additionally, between 2000 and 2010 the number of owner-occupied and renter-occupied units has increased.

Another important demographic trend that will have significant impacts on housing in Weathersfield and the region is the aging of the “Baby Boomers” generation. A significant proportion of the population is between the ages of 40 and 75 raising the median age of Weathersfield to 49 years old (Vermont is 42yrs old, US is 37yrs old). As this large group of people age, there will be a larger demand for assisted living facilities and infrastructure allowing for aging-in-place.

### 8.1 Housing Types

Construction of new housing has slowed dramatically in the last two decades with the addition of only 66 units between 1990 and 2000 and only 74 between 2000 and 2010. The majority of these new houses were built in the rural areas of town. Housing stock is comprised mostly of single family dwelling units (76.4%); the remaining stock includes duplexes (0.1 %) and manufactured homes (23.5 %).

Weathersfield does not provide any assisted housing opportunities. Assisted housing is defined to include permanent rental subsidies, HUD Section 8 Certificates and Vouchers. The purpose of these programs is to ensure that low income people do not pay more than approximately one-third (1/3) of their income toward their housing costs. However, manufactured homes in Weathersfield may provide some housing at affordable rates. Another important form of affordable housing for Weathersfield residents includes Accessory Dwelling Units.

According to a recent housing needs assessment performed by the Vermont Housing Finance Agency, 21.3% of Weathersfield residents spend more than 30% of their monthly income on housing.

Furthermore, the report indicates that 8.1% spend more than 50% of their monthly income on housing. It is also important to note that these figures are calculated using pre-tax dollars and do not account for monthly transportation costs which can further burden a

household. When transportation costs are taken into account, the percentage of income dedicated to Housing and Transportation rises to 55% (The Center for Neighborhood Technology, Housing and Transportation Affordability Index).

## **8.2 Wages and Income**

The median household income in Weathersfield is above both the levels for Windsor County and the State. Furthermore, according to Vermont Housing Data, 1,471 Weathersfield residents participate in the labor force. A majority of those workers, 78%, are not employed within town. Additionally, of those 1,471, 34% work outside of Windsor County, and 28% work outside of Vermont.

## **8.3 Pressure on the Land**

Generally, new houses are larger than houses built a decade ago. Larger houses are usually built on larger lots. Weathersfield may become more attractive to workers from the Upper Valley who are priced out of the market for large houses in other towns. This influx could put further pressure on the availability of “affordable housing” for lower and middle income Weathersfield residents. It is important that housing in Weathersfield be available to people at all income levels. More than 20 parcels totaling approximately 2,000 acres have been set aside in the past decade with conservation easements, usually through the Upper Valley Land Trust. While significant portions of this land – such as that on Mount Ascutney – would have been very difficult to build on, the land has been removed from possible development. Finally, changes in the village areas of the Town may have an impact on the future of housing and land use. The closing of the general store and the relocation of the post office to Downers dramatically altered the nature of Perkinsville village. In Ascutney, an article to construct a sidewalk was twice voted down, and water and sewer limitations remain barriers to growth. Additionally, there has been some commercial development in Downers. A 2010 community planning survey indicated a desire among residents to allow higher density residential development in the village centers. This development could either increase the density of villages but also the growth could expand the size of the existing villages. As of 2014, the zoning bylaws require 1-acre lot minimums and building lot setbacks that conflict with the goal of increasing growth in villages. The 1 acre minimum lot size places a great deal of the small village lots into nonconformity. Many of the buildings, so closely spaced together, do not meet current setback requirements. The nonconforming designations then make it difficult for landowners to rehabilitate or alter buildings.

The two village areas most desired for growth to occur, as identified in that community planning survey, are Ascutney and Perkinsville. Increasing densities in the villages is one of the best ways to encourage housing that is affordable for prevailing wages. In both Perkinsville and Ascutney, residents are primarily served by private wells and on-site septic systems. Given the separation requirements for water and septic systems, growth is limited in both villages. However, the Town has made progress towards this issue in

Ascutney with the purchase of the Country Estates water system. Ascutney Fire District #2 has been established to own and manage the former Country Estates public water system. While this will ease the separation requirement therefore allowing for increased densities, State on-site septic permit requirements may still present challenges. Furthermore, while the water system is anticipated to accommodate future growth (based on current trends) water tank storage is a limiting factor for unanticipated developments.

## **8.4 Housing Goals**

8.4.1 Residents of all income levels should find housing that is affordable and livable.

8.4.2 Promote a balance of residential and commercial properties to prevent an overload on the costs for educational, municipal, and infrastructure services.

## **8.5 Housing Recommendations**

8.5.1 Promote careful planning to keep Weathersfield attractive to a diverse population and to suitable commercial development to ensure an adequate tax base and a reasonable tax rate.

8.5.2 Encourage carefully planned commercial and residential growth in village areas. It should be shown, prior to approval, that the impact of growth from development projects can be absorbed by the town.

8.5.3 Encourage measures that preserve the integrity of hamlets and village centers.

8.5.4 Encourage forms of affordable housing that make sense for Weathersfield such as Accessory Dwelling Units and multifamily home renovations.

8.5.5 Encourage cluster development to promote open space.

8.5.6 Work with the Windham and Windsor Housing Trust to identify reasonable ways to address affordable housing issues in Weathersfield.

8.5.7 New and rehabilitated housing should be safe, sanitary and conveniently located.

8.5.8 Review the zoning bylaws to ensure that the equal treatment of housing provisions in 24

V.S.A. §4412(1) are adequately addressed

## **ECONOMIC DEVELOPMENT**

The Town of Weathersfield seeks new economic development for the purposes of:

- serving local residents,
- encouraging local food production
- providing local employment and
- helping to broaden the tax base
- encouraging small businesses

### **9.1 Present Economic Conditions**

Historically, agriculture and mills were the basis of Weathersfield's local economy. As a small rural town today, Weathersfield relies significantly on jobs located in other towns. Local economic activities currently include home occupations, small stores, restaurants, contractors, gasoline/service stations, professional offices, campgrounds, forestry, small scale agriculture, town government, and the Weathersfield School. Most commercial activities are concentrated in Ascutney along Routes 131 and 5. There is a secondary concentration of activity at Downers. A 2012 inventory of businesses in Town shows that there are 105 businesses, 37 of which are home-based businesses and 8 are farm or agricultural-related.

### **9.2 Type of Desired Economic Development**

Weathersfielders have consistently expressed their desire to remain a rural community and to ensure that all forms of development retain or contribute to that desire. Of particular value to townspeople are home-based businesses and small-scaled businesses that do not detract from the Town's natural beauty or rural character. Townspeople are averse to high density, high-traffic commercial developments and the types of commercial development that lead to increased crime rates and decreased property values.

The type of economic development and its social and aesthetic impact is of primary concern to the town, both as individuals and as a municipality.

Weathersfield also has valuable resources whose contribution to economic well-being is not always as obvious as a new business along a highway such as:

- Village centers;
- A diverse agricultural community that is answering the ever-growing demand for locally produced agricultural products, including cheese and wine making, specialty orchards, and Christmas trees;
- Water bodies, such as the Connecticut River, Stoughton Pond, North Springfield Reservoir and the Army Corps of Engineers Flood Control Area, all providing the means for water-based recreation and the businesses that support them;
- Natural resources including Mt. Ascutney, the town forests, and the Springweather Nature Area for hunting, fishing, hiking, snowmobiling, cross-country skiing, wildlife observation;

- Scenic roads for walking and biking.

The town encourages development of appropriately-scaled renewable energy resources, both as economic development and as a benefit to the town's energy consumers.

### **9.3 Location of Desired Economic Development**

Home businesses are the most desired type of economic development in the town. These should be allowed wherever residential development currently exists or wherever it is appropriate for new residential development. Additional economic development should be encouraged in the village centers, Downers, and in the I-91 interchange corridor.

### **9.4 Scale of Desired Economic Development**

Townpeople prefer to keep business at a scale that is appropriate for the town. Home-based businesses were of the utmost importance to the participants in the Planning Commission's 2010 public outreach meetings and perhaps best capture the concept of "appropriate scale."

The future land use discussion in the Land Use Chapter further describes the location, type, and scale of desired future economic conditions in Weathersfield.

Providing adequate access to job centers in the surrounding larger towns, such as through public transportation and ridesharing, is also an important consideration for the economic health of Weathersfield.

### **9.5 Economic Development Goals**

9.5.1 The town shall strive to foster economic growth in the community through the support and encouragement of home-based businesses and those that are appropriate in scale to the rural character of the Town.

9.5.2 The town also values agriculture as both a source of local food that is integral to food security and as an important economic driver, and strives to protect, preserve, and expand existing agricultural businesses and lands. Thus the town shall:

9.5.2.1 Conserve the land and other environmental resources critical to the long-term success of the local agricultural economy;

9.5.2.2 Encourage the local agricultural sector and its capacity to respond to market trends in agriculture;

9.5.2.3 Build public support for the community's farms and farmers;

9.5.2.4 Promote, protect and assist agriculture as a functional sector of the local economy;

9.5.2.5 Promote agri-tourism.

9.5.3 Because of the natural beauty and abundant resources for outside activity, the town shall seek ways to promote recreational tourism.

9.5.4 The town shall protect the village character by limiting the location and density of businesses that sell products that cannot be sold to minors.

9.5.5 Economic development in the Exit 8 interchange corridor shall be consistent with the goals of the I-91 Exit 8 Interchange Master Plan dated April 11, 2008 (refer to Future Land Use map).

## **9.6 Economic Development Recommendations**

9.6.1 Develop an inventory of resources that are available and attractive to economic development and match it with businesses most likely to desire those resources.

9.6.2 Conduct comprehensive feasibility studies, including technical, political, and economic dimensions, to determine the costs and benefits of community infrastructure in the village centers.

9.6.3 Develop and publicize recreational opportunities such as bike paths, bike lanes and hiking trails in town to various points and use them to stimulate bike-related or camp-related economic activity.

9.6.4 Support propagation of high-speed internet services throughout the town.

9.6.5 Promote state-wide business programs such as the Small Business Administration and other free resources that are available to assist local and small businesses.

9.6.6 Revitalize the Ascutney and Perkinsville Village Centers.

## HEALTH AND HUMAN SERVICES

Vermont is considered one of the healthiest states in the country, in part, due to a clean natural environment, an abundance of outdoor recreational opportunities, and access to locally-sourced and healthy foods. The Vermont Department of Health defines healthy communities as “Communities that are built to support physical activity, safe walking and biking, use of public transportation, and easy access to fresh and healthy foods help people lead healthier, more active lives.” However, health-related issues persist in Vermont, such as limited access to primary care physicians and dentists, mental health issues, substance abuse, and a lack of physical activity. The purpose of this chapter is to identify ways that town policies and regulations may promote healthy community initiatives.

### 10.1 Inventory of Existing Health and Human Services

Weathersfield is served by hospitals located in the surrounding communities of Windsor, Springfield, and Claremont. Dartmouth-Hitchcock Medical Center, the largest medical facility in the area, also serves residents. There are walk-in health clinics available in neighboring towns. Riverside Internal Medicine is located in Ascutney. (See Appendix A that includes an inventory of health and human services Weathersfield residents.)

The Weathersfield Police Department and the two local volunteer fire departments are discussed in the Utilities and Facilities Chapter. Emergency medical services are provided by the Town under contract with Golden Cross Ambulance from Claremont, NH. Weathersfield is part of a regional mutual aid system. Ambulance coverage based in Springfield might provide faster coverage for the western part of Town.

There are agencies and programs that provide health and related services for Weathersfield residents, including:

- Springfield Health and Rehabilitation Center offers a range of services including short- stay rehabilitation, respite, long-term and hospice care services.
- Healthcare and Rehabilitative Services (HCRS offices in Springfield and Windsor) is a mental health / substance abuse treatment organization offering crisis, child/family, adult, and developmental services to all community members.
- Assisted living facilities include the Ascutney House Residential Care Home and other facilities located in adjacent towns (e.g. Cedar Hill, Runnemedede, and Evarts House in Windsor).
- The Springfield Area Adult Day Service provides social and health programs for elders and adults with disabilities as an alternative to residential care.
- Senior Solutions, the Council on Aging in Southeastern Vermont, provides

resources and services for residents over 60 years of age.

- Connecticut River Transit provides transportation services for elders and persons with disabilities, in partnership with human service agencies.
- Southeastern Vermont Community Action (SEVCA), a non-profit community action agency in Westminster, provides assistance to low income Vermonters.
- Community Health Outreach at Mt Ascutney Hospital offers programs to improve the lives of persons living with chronic conditions and cessation services (i.e. tobacco quitting program).
- The Visiting Nurse and Hospice Association for Vermont and New Hampshire provides home health care and end-of-life hospice care services.

Vermont promotes “aging in place,” but access to health care, both in terms of transportation and the availability of affordable services, is an important consideration for elders living in rural areas. According to Housing and the Needs of Vermont’s Aging Population, “Research shows that more seniors today want to “age in place,” which means choosing to remain at home or in a supportive living community as they grow older - without having to move each time their needs increase. With nursing home care expenses currently costing the state millions of dollars annually, Vermont officials would like to accommodate seniors’ wishes to remain at home longer. The 2006 average annual cost of nursing home care per resident in the state was \$73,730, just below the national average of \$75,190. The 2030 national estimates show an increase to \$190,600 per person annually (a 254 percent increase from 2006).”

## **10.2 Summary of Relevant Trends**

The health needs of the broader region were identified in the 2012 Upper Valley Community Needs Assessment, including the following “bottom line” outcomes:

- Lack of quality jobs/income
- Transportation access and cost
- Housing costs
- Substance abuse (tobacco, alcohol, drug)
- Oral health
- Mental health
- Obesity/poor nutrition/lack of physical activity
- All health/oral health insurance/access
- Childcare
- Asthma
- Isolation/less time for community
- Quality of/limited education



### 10.3 Ways to Address Existing Health Problems

Many of the health issues identified in this chapter are best addressed by health and human service professionals, or are subject to policy decisions by the State and Federal Governments. However, a focus on prevention contributes to improving the health of residents, increasing the productivity of workers, and reducing health care costs. Prevention includes both clinical services (e.g. health screenings, immunizations, counseling) and community services, such as a town that promotes healthy community design. Healthy community design links traditional planning concepts (land use, transportation, community facilities, parks and open spaces) with health themes (physical activity, public safety, access to nutritious food, air and water quality, mental health and social equity). Healthy community designs influence the overall health of a community by making the healthiest choice the easiest and most accessible choice for all – regardless of age, ability and income.

Vermont Complete Streets principles help to achieve healthy community design objectives by considering the needs of all users – including motorists, bicyclists, public transportation users, and pedestrians of all ages and abilities – in transportation projects. Act 34 (enacted in 2011) established a Complete Streets Policy for the State of Vermont. As described by the Department of Health's Complete Streets Guide for Municipalities: "Complete Streets is a philosophy and approach to planning, design, construction, and maintenance of our roadway network to consider all users, including pedestrians, bicyclists, transit riders, equestrian ridership, and recreational walking/jogging. Context and current or potential travel patterns need to be considered in determining the appropriate way to meet the needs of all modes of transportation. Not every street or road will be used by a wide variety of modes, but a complete streets approach considers all users and seeks desirable, practical, and affordable improvements that will be accepted by the community. A Complete Streets project does not need to be all or none – incremental improvements may contribute meaningfully to a multi-modal system."

Since Weathersfield residents generally rely on health services that are primarily available in the surrounding communities, access to those services is important. Therefore, the town's continued coordination with providers of transportation to medical and related services (i.e.

Connecticut River Transit, Veteran's Administration, Green Mountain R.S.V.P. and Volunteer Center, and other providers) is a priority. The Town of Weathersfield may also make a large contribution in positively addressing these health issues through policies and regulations that promote healthy community design, foster multigenerational planning, and avoid the negative health impacts of certain land uses upon public health, safety, and welfare.

Multigenerational planning refers to a holistic approach that considers the needs of all demographic groups. Factors – such as low-density land use patterns, limited housing options, an automobile-oriented transportation network, and other aspects of the current built environment – may have negative effects on the lives of seniors, children, and persons

with disabilities. For example, poorly designed housing may cause seniors to live at lower levels of functioning and independence. A large residential area that is connected to a school or recreation area by only a roadway without sidewalks or bike path may limit the safe travel of children. Addressing this in Weathersfield may mean encouraging more quality housing choices designed to meet the needs of seniors, furthering Healthy Community Design and Complete Streets principles, and supporting aging in place programs.

A number of efforts by the town in coordination with health agencies will contribute to improved community health through the promotion of initiatives, such as:

10.3.1 Local production and accessibility of food options (i.e. farms, farm stands, expand retail of local foods, farm-to-school programs);

10.3.2 Obesity awareness;

10.3.3 Increased physical activity;

10.3.4 Community design that promotes active transportation through increased or enhanced walking and bicycling facilities (i.e. implementing the Exit 8 Interchange Master Plan, provide sidewalks in villages, develop a municipal complete street policy);

10.3.5 Improved access to recreation facilities;

10.3.6 Establishment and maintenance of trail networks, and land use regulations and policies that promote healthy communities and businesses that further these efforts;

10.3.7 Prevention of youth and adult substance use.

10.3.8 Review housing policies and regulations to make sure they address multigenerational planning initiatives discussed in the East Central Vermont's Sustainable Health for all Ages.

#### **10.4 Health and Human Services Goal(s)**

10.4.1 Promote healthy community initiatives through comprehensive community planning and design that support public health, safety and welfare.

#### **10.5 Health and Human Services Policies**

10.5.1 Any project that is subject to a zoning permit will avoid undue adverse impacts on public health by meeting the Performance Standards of the Weathersfield Zoning Bylaws.

10.5.2 Commercial and industrial developments will demonstrate that they will not

create an unreasonable burden on the municipality in providing governmental services, including adequate emergency vehicle access and the ability to serve the proposed development with the existing municipal police and fire facilities and personnel.

10.5.3 Major developments will strive to create a balanced transportation system that provides for the safety and mobility of all users and that furthers the Complete Streets principles.

10.5.4 Developments along the VT Routes 131/12 corridor in Ascutney will incorporate Exit 8 Interchange Master Plan design guidelines.

10.5.5 The town should improve awareness of and public access to public-owned recreation facilities such as the Weathersfield School Gymnasium/Auditorium, Hoisington Field, and the Town Forest.

10.5.6 Development will not diminish public access to existing public recreational facilities.

10.5.7 The town should encourage businesses and community-led initiatives to strengthen the food system and enhance access to locally produced foods, including the development of necessary infrastructure, such as community gardens on vacant lands, more farm stands, and support for community-based food shelves.

## **10.6 Health and Human Services Recommendations**

10.6.1 Consider utilizing a health impact analysis as part of a complete local land use permit application for commercial and industrial uses.

10.6.2 Actively publicize area existing health and human service agencies, health programs, transportation services, and recreational activities for residents and visitors.

10.6.3 Consider zoning bylaw provisions that encourage retail uses that contribute to healthy diets.

10.6.4 The town will protect the village character by limiting the location and density of businesses that sell products that cannot be sold to minors.

10.6.5 Evaluate whether existing programs support multigenerational planning and aging-in-place in Weathersfield.

10.6.6 The town will consider obtaining ambulance coverage based in Springfield for the western part of the town.

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**10.6.7** Evaluate current goals and mission of Parks and Recreation Commission, and create policies that govern commission activities and expenditures.

**10.6.8** The town should periodically review zoning and subdivision bylaws to make sure that they adequately promote public health, welfare, and safety.

## **FLOOD RESILIENCY**

### **11.1 Introduction**

In 2013, to encourage towns to prepare for future flood events, the Vermont legislature passed Act 16, which requires town plans adopted after July 1, 2014 to include a flood resilience plan. Outlined in state law are the following goals:

- New development in identified flood hazard, fluvial erosion, and river corridor protection areas should be avoided. If new development is to be built in such areas, it should not exacerbate flooding and fluvial erosion.
- The protection and restoration of floodplains and upland forested areas that attenuate and moderate flooding and fluvial erosion should be encouraged.
- Flood emergency preparedness and response planning should be encouraged.

The amount of precipitation falling in extreme events is expected to increase as a result of changing climatic patterns. These trends have been confirmed by climate research evaluating changing weather patterns in the northeast United States over the last 50 years. The trends are also supported by the increase of Federal Emergency Management Agency (FEMA) Emergency and Major Disaster declarations in the northeast and for the State of Vermont. With the exception of the 1998 ice storm (itself a precipitation event), the escalating frequency of state and federal declarations have all been related to flooding and its resulting damage to private and public property.

Weathersfield has a unique landscape that influences type, severity, and frequency of flood related events. The Town has had substantial flood related events in 1927, 1969, 1973, and 2011. Please reference the Weathersfield's All-Hazard Mitigation Plan for a more complete community flood risk assessment. The Town regularly incurs smaller-scale flood damage, most notably to transportation infrastructure. Transportation infrastructure is a catch-all term that includes town roads, private driveways, bridges and culverts, and roadside ditching.

There are two types of flooding that impact the town. Lands located in the flatter terrain of the Connecticut River and Black River valleys are exposed to inundation type flooding. Hillier, upland areas are exposed to fluvial erosion that may gradually or instantly erode river banks, undermining property, structures, and in severe cases creating public safety risks. Inundation-related flooding may have disastrous consequences, but the town's greatest flooding risk to property and life comes from fluvial erosion.

The town has three watersheds that function independently of one another (Mill Brook – Connecticut River in the north, the Black River in the west, and the Little Sugar River – Connecticut River in the east). This reduces the chances that a singular storm event will impact the entire town at the same time and/or scale. For example, Tropical Storm Irene devastated the Black River watershed in the western part of Town, whereas the Little Sugar

River-Connecticut River watershed in the eastern part of Town was never directly impacted. Town officials who lived in Ascutney came to work the morning after the storm wholly unaware of the flood related devastation to the Black River watershed.

Mt. Ascutney, a geologic monadnock, is noteworthy because its high elevation creates a localized or micro-weather pattern and the steep topography increases the severity of storm water runoff impacts. Local roads north of VT Route 131 are vulnerable to Mt Ascutney's influence on weather and storm water runoff. The Town needs to expand drainage capacities of culverts, bridges, and ditching to accommodate increasingly high storm water runoff rates.

The U.S. Army Corps of Engineers controls adjacent land use and manages water levels for areas in the Connecticut River and the Black River / North Springfield Reservoir. This high level of federally managed waterway control is unique and provides a level of active flood management that benefits the Town.

When the Town is impacted by an event that causes flood damage, energies are directed towards the repair and rebuilding, which is followed by another event that causes flood damage in the same area. The damage-rebuild-damage cycle needs to be recognized for its inefficiency; planning, policy, and capital investment must focus on flood resiliency. The Town's 2014 road and bridge standards include minimum standards that should help to address this problem. For example, the standards call for new and replaced structures to be sized adequately in accordance with VTrans' Hydraulics manual and ANR's Stream Alteration standards.

## **11.2 Maintaining Town Plans and Policies**

As of 2014, Weathersfield meets all the necessary state and federal flood hazard and mitigation requirements. The town has current road and bridge standards, a local emergency operations plan, and a local hazard mitigation plan. The town has been enrolled in the National Flood Insurance Program since September 18, 1985. In adopting all these plans and policies, the town qualifies for the Emergency Relief and Assistance Fund (ERAF) preferential rate of 12.5% (as opposed to 25%). Because of the great expenses involved with flood related damages, maintaining or even exceeding state and federal standards is critically important. Without state and federal funding assistance, flood related damages could catastrophically impact the town's budget.

The ERAF rate may be improved to 17.5% if the Town decides to pursue one of the following options:

- Maintenance of an active rate classification (class #1 through 9) under FEMA's Community Rating System (CRS) that includes activities that prohibit new structures in mapped flood hazard zones.

- Adoption of a Fluvial Erosion Hazard (FEH) or other river corridor or floodplain protection by-law that meets or exceeds the Vermont Agency of Natural Resources (ANR) FEH model regulations and scoping guidelines.

### **11.3 Protecting the Built Environment**

Naturally vegetated riparian buffers are critical to maintaining a healthy stream, river, and wetland ecology. The same buffer allows streams, rivers, and wetlands to process peak storm water flows without destroying structures or washing away unsecured outdoor equipment and materials. In addition to reducing the loss of property, preventing man-made items from being washed away eliminates the risk those items can damage something downstream. The chances for downstream damage are less if flooding erodes natural (not man-made) materials.

The town's zoning bylaws currently require an undisturbed vegetative buffer along streams, rivers, and wetlands. The town should give serious consideration for increasing those riparian buffers in flood prone areas especially where state level mapping has provided evidence these are known flood hazard zones. The town should also redefine 'undisturbed' so that landowners would be encouraged to control invasive plant species in preference of native vegetation that better serves our local ecology, reduces storm water runoff, and stabilizes stream and river banks.

The town's subdivision regulations require all subdivisions to define and map wetlands, rivers, prime agricultural soils and critical habitats, streams, and flood prone areas. The town needs to continue identifying these areas with the appropriate setbacks to protect the subdivided land against future development encroachment on flood prone areas.

The Connecticut River floodplain has been mapped as part of the National Flood Insurance Program by the Federal Insurance Administration. This agency addresses inundation related flooding along major waterways.

The Vermont's Agency of Natural Resources maintains the river corridor mapping for waterways. This agency is concerned with the fluvial erosion related hazards. The most recent mapping was released in November 2014 and the data will now be continually updated as necessary. A river corridor is a waterway's physical location and condition. A river corridor is also the physical migration space a waterway may 'consume' in the future. Particularly in flood events, waterways are known to make significant shifts in alignment and so river corridor mapping must anticipate this larger geographic area.

### **11.4 Protecting the Transportation System**

As of 2014, the town maintains 82 miles of roadways, 824 culverts, and 12 bridges. This is a significant public investment in addition to the Vermont state-controlled transportation infrastructure found on the VT131, VT106, US 5, and I-91 corridors. Historically, the local geography encouraged the construction of roads directly adjacent to and with multiple

crossings of rivers and streams. Relocating roads is prohibitively expensive and in most cases road relocation is impossible given topographic constraints and private property concerns. The town understands that protecting roads from storm water and fluvial erosion is the only practical option. Training town officials in local roads and floodplain management practices will be an increasingly helpful asset to the community.

The town's driveway permit application process should consider flood hazard risks. The goal is to evaluate flood risks for all new driveways and to site those driveways away from known flood prone areas. Streams that can normally be crossed year-round simply by walking over them may turn into a flash flood, torrential river. Driveways need to be protected by avoiding water crossing and locating the driveway alignment away from waterways or known flood prone areas.

### **11.5 Flood and Erosion Hazard Areas**

Areas in and around Perkinsville, Downer's Corners, Amsden, and Greenbush are particularly vulnerable to inundation and erosion by the Black River, the North Branch, and Branch Brook. Near Ascutney Village, two areas of concern are where Mill Brook intersects Route 5 and where Mill Brook intersects Tenney Hill Road. The Tarbell Hill Road area has experienced repeat flood and erosion damages in recent storms. In 2014, the town received grant funds for stream bank stabilization.

The Agency of Natural Resources Atlas ([www.anr.state.vt.us/site/html/maps.htm](http://www.anr.state.vt.us/site/html/maps.htm)) and Vermont's Flood Ready Atlas ([floodready.vermont.gov/assessment/vt-floodready-atlas](http://floodready.vermont.gov/assessment/vt-floodready-atlas)) are the mapping databases incorporated by reference in this Town Plan Chapter. These maps are not in print format because they are continually being updated with the most recent information on flood hazards and river corridor data.

### **11.6 Flood Resiliency Goals**

11.6.1 Direct all new public and private investments away from flood prone areas.

11.6.2 Place emphasis on mitigating disasters and alleviating that known cycle of damage-rebuild- damage.

11.6.3 Town planning should focus on improving the identification of river corridor and fluvial erosion hazard areas and flood plain access areas. The town shall continue to establish land use standards that promote avoidance in erosion prone areas. The tow will also use land use standards to preserve a waterway's access to flood plain areas.

### **11.7 Flood Resiliency Recommendations**

11.7.1 Regularly review and update town plans and policies to maintain State and Federal compliance - particularly when meeting these regulations qualifies the town for additional grants or preferential funding match rates.



11.7.2 The town shall evaluate flood risks for all new driveway permits and require driveways to be located outside of flood prone areas.

11.7.3 Fully integrate flood resiliency planning and state/federal flood hazard regulations into the Weathersfield Zoning Bylaws.

11.7.4 Update the zoning bylaws on riparian buffers so it does not prohibit the proper management of bankside vegetation with the goal of replacing invasive with native plant species.

11.7.5 Encourage Town officials to receive certification training in local road and floodplain management.

11.7.6 Develop a capital improvements plan that includes projects that implement flood resilience strategies for priority town highways and structures.

11.7.7 More actively educate residents and land owners about local, regional, and state land use policy changes for development within river corridors and flood prone areas.