

GLASTENBURY TOWN PLAN



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Prepared by
Glastenbury Planning Commission and
Bennington County Regional Commission

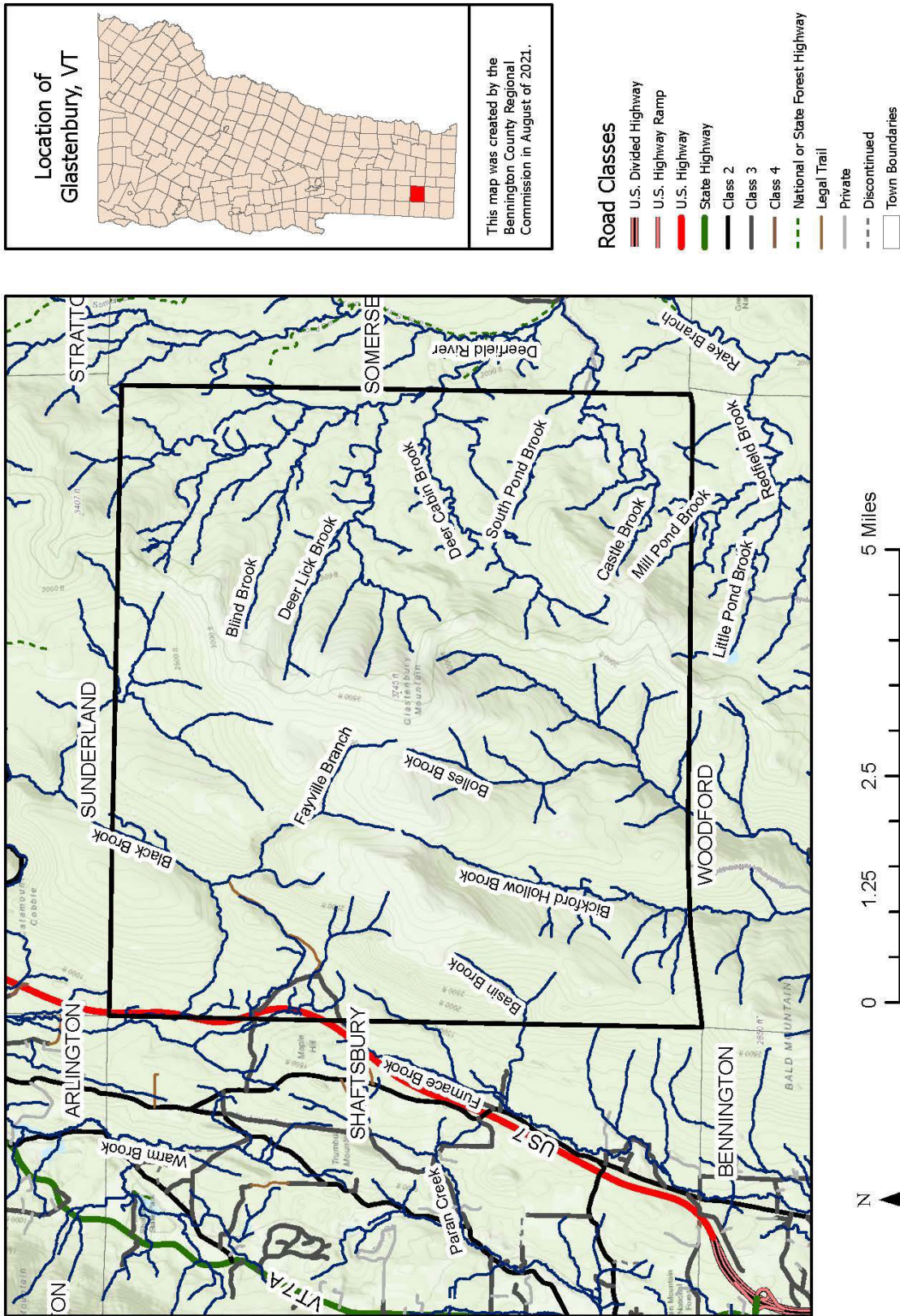
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Map 1: Town of Glastenbury

Map 1. Town of Glastenbury



GLASTENBURY TOWN PLAN

I. INTRODUCTION

- 1.1 Located in the highlands of southwestern Vermont, the Town of Glastenbury is a unique place of vast wilderness, sparse settlement, and abounding local lore. Well into the 20th century, Glastenbury was regarded as a frontier settlement area of Vermont due to its rough and steep terrain, harsh winters, and short agricultural season. As a result of these conditions, Glastenbury's population has always been limited; today the town has seven year-round residents, but attracts scores of seasonal visitors for outdoor recreation activities.

As one of two unorganized towns in the State of Vermont, Glastenbury has a different governing structure from other Vermont municipalities. The Governor-appointed Supervisor handles town administration and Supervisor-appointed Planning Commission with support from the Bennington County Regional Commission (BCRC) handles planning and zoning matters. The vast majority (94%) of the town's territory is part of the Green Mountain National Forest managed by the U.S. Forest Service. This area is traversed by the Appalachian/Long Trail and contains more than half of the 22,330-acre federally designated Glastenbury Wilderness area, which extends into neighboring Woodford, Bennington, and Shaftsbury. The ridgeline of Glastenbury Mountain reaches a peak elevation of 3,748 feet, and eleven of the town's other mountain peaks rise to elevations over 3,000 feet. Glastenbury streams feed both the Hudson River watershed and the Connecticut River watershed

Glastenbury's small resident population, abutting communities, and seasonal visitors value the tranquility of the town's rural residential- and protected natural setting, as well as its intriguing past, abundant wildlife, and backcountry recreational opportunities. This Town Plan outlines Glastenbury's assets and development policies to assure future investments and land uses are efficient and protect the area's pristine natural qualities.

1.2 Purpose of the Town Plan

The Town Plan is both a community vision statement and a regulatory document. The Glastenbury Town Plan presents public policy and criteria for the implementation of a reasonably slow rate of growth, efficient settlement pattern, adequate environmental protection, and the conservation of natural resources and energy. It contains guidelines for the efficient and harmonious physical and social development of the Town and should serve as a guide for public and private decision makers. The Plan conforms with the Bennington County Regional Plan and planning requirements outlined in Vermont statute.

Town Plans are unique in Vermont in that they serve a regulatory purpose. Act 250, for example, requires development projects to conform to the local Town Plan. In addition, proceedings for State projects, such as the location of roads, and the siting of public utilities under Section 248 must also consider development policies of the Town Plan. Therefore, although the Plan's recommendations may be for the long term, they may also be used in a decision-making process at any time.

The Town Plan presents goals and objectives, and statements of policy. The policy statements of the Glastenbury Town Plan are designed to limit growth and to guide any growth to be consistent with Glastenbury's values and goals. The policies for the land use element are especially important since they provide the basis for other policies related to land development and capital investment. Since no plan can predict future changes in the Town, these policies must be reviewed periodically in light of changing conditions.

According to Vermont statute, a public input process must underpin municipal plan development. The original draft of this document was developed in 1990 by a Glastenbury Town Plan Committee organized by the BCRC. That group was comprised of representatives of Glastenbury and neighboring towns, and several public meetings solicited broad input on the draft plan and associated policies. That plan has been revised and re-adopted several times, most recently in 2015.

1.3 Goals for the Town of Glastenbury

This Plan is designed to guide the Town of Glastenbury's development to advance local values and accomplish specific development goals:

Glastenbury values the integrity of the natural environment and the various ecological services it provides. Development shall:

- 1A. Keep the steep slopes, flood plains, and wetland areas free from development and dedicated to the forestry, recreation, and aquifer recharge functions for which they are best suited.
- 1B. Protect and maintain the water quality of present and future water supply sources.
- 1C. Preserve rare and unique plants and wildlife and critical wildlife habitat.
- 1D. Maintain the profiles and ridgelines of mountains and hills in their natural state to preserve their scenic beauty.
- 1E. Prevent the fragmentation of forested habitat areas and protect surface water riparian areas.

Glastenbury treasures the town's history and associated relics. Development shall:

- 1F. Protect areas of special educational and scientific value, and conserve sites and structures of historical and archaeological significance.

Glastenbury values its rural settlement pattern of limited, clustered residential development surrounded by wilderness and open space. Development shall:

- 1G. Avoid incompatible and uncoordinated development activity and land uses that alter or introduce adverse impacts to existing rural residential, working landscape, and conserved wilderness uses.

- 1H. Ensure infrastructure investments are efficient, economical, and compatible with other goals.
- 1I. Bear its fair share of capital and maintenance costs to the Town.
- 1J. Present and adhere to long-range plans for the best services possible covering public health and safety, education, fire protection, water supply, waste disposal, and similar facilities, including cooperation with adjacent towns and the whole region.
- 1K. Locate development along or near existing roads, thus avoiding new road mileage while minimizing costly required public and private facilities. The rate of growth of development in the town should not cause a burden to services and facilities or an excessive increase in the tax rate.
- 1L. Preserve and conserve unusual physical features, historic and scenic areas of public interest, natural beauty, and fragile landscapes, and shall follow procedures to return the site as nearly as possible to its predevelopment condition and appearance.
- 1M. Adhere to the policies of this plan.

Glastenbury values its outdoor recreation assets and its community partners who preserve and develop public recreational opportunities. Development shall:

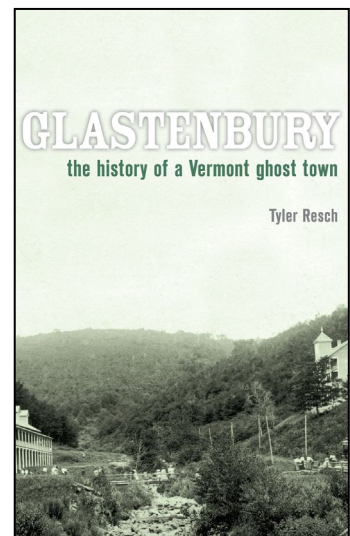
- 1N. Keep future public recreational uses in Glastenbury consistent with the remote character and limited infrastructure and public services the town can provide. Assure that existing access points to public recreational areas stay open and viable in the future and that use of these sites does not alter the town’s characteristic inaccessibility and undeveloped state.
- 1O. Coordinate with the U.S. Forest Service, the Appalachian Trail Conservancy, and the Green Mountain Club on current uses and future plans for public lands.

II. HISTORY

Overview

Glastenbury's claim to fame today, aside from its 42.7 square miles of mostly uninhabited mountainous territory, its dozen peaks of more than 3,000 feet elevation topped by Vermont’s sixth highest peak (3,748 feet), and its status as a rare “unorganized” town, is its single-digit population. Often referred to as a "ghost town” because its two settlements were abandoned, Glastenbury has seen varied populations and uses through the years.

Glastenbury has been home to indigenous Abenaki peoples, colonial frontier farms, small village settlements in the 19th century, massive logging operations and associated rail



infrastructure in the second half of the 19th century, and modern rural residential and recreational uses in the Green Mountain National Forest. The book, “Glastenbury: The History of a Vermont Ghost Town” by local historian Tyler Resch provides rich details on the town’s history and legends.

Early Colonial Settlement: 1761 to the mid-1800s

On August 20, 1761, Governor Benning Wentworth of New Hampshire chartered Glastenbury in the same way he launched many other Vermont towns, by selling rights to purchasers called proprietors. Until the town was officially organized, Glastenbury’s proprietors, who were mostly lawyers in Bennington, kept rudimentary records as they intermittently and casually sought to divide up the land.

When the first federal census of Vermont was taken in 1791, Glastenbury boasted six families and 34 residents. A decade later those families were all gone and eight other families were enumerated. When the Legislature organized the town in 1834, town clerk Luman Hewes began keeping the records that are now stored in the vault of the Bennington County Clerk. Among the first permanent families were the Mattisons, who arrived from Rhode Island in the 1840s; that surname would survive for the next century. John H. Mattison served as town clerk, selectman, school superintendent, constable, tax collector and justice of the peace in a tradition of multiple office holding.

All these residents lived in or near a logging community called Fayville located in the northwest corner of Glastenbury, accessible only from the East Road in Shaftsbury. It was probably named for Samuel Fay, a proprietor still active in the 1820s. In federal censuses between 1820 and 1860, Fayville averaged fifty residents, who made their living cutting trees and processing them in a sawmill operated by the Eagle Square Company of South Shaftsbury, a pioneering Vermont industry.

Height of Logging Industry: Mid-1800s to 1880s

The mid 19th century saw several abortive attempts to build a plank highway and then a railroad across Glastenbury. Shortly after the Civil War a new settlement called South Glastenbury was formed in the south central part of town. This village became the terminus of an eight-mile rail line, The Bennington and Glastenbury (B&G). This railroad climbed some 1,300 feet in elevation and was first designed to transport timber. Its locomotives burned wood, later coal, and finally the line was electrified. The new village had a sawmill, a blacksmith shop, a boarding house, several small homes, a school, and even a post office between 1873 and 1878.

A major railroad stockholder was Trenor W. Park, a native of Woodford, and a lawyer who made a fortune during and after the California Gold Rush. He used some of his riches to build the mansion now known as the Park-McCullough House in North Bennington. His descendants would inherit many of Glastenbury’s abundant acres of forest.

The 1880 Hamilton Child Gazetteer of Bennington County listed 30 Glastenbury residents by name but



The loggers boarding house in South Glastenbury along Bolles Brook. Twentieth century.

commented, as if to apologize for the number, “Much of the population of this town is transient and therefore not enumerated.” The year 1880 also marked the town’s maximum population, when 241 residents were counted in the two settlements, Fayville and South Glastenbury.

For a brief time before oil fueled American industry, Glastenbury’s trees were transformed to create charcoal that was used to produce iron, both in Shaftsbury and Bennington, and a train’s ride away in Troy, N.Y. Archeologists have discovered in Glastenbury the ruins of more than two dozen brick kilns where crews would labor around the clock to prepare the wood and then keep watch as it smoldered into charcoal. Each kiln, consisting of some 36,000 bricks double-layered, was 28 to 30 feet in diameter, 12 to 16 feet high, and held together by iron bands. An entire production cycle of charcoal, including wood preparation, charring, and cooling took about twelve days. Four or five men a day were needed to load the charge of wood, and a crew had to be alert around the clock so that the wood didn’t burn to ash.

Glastenbury as Recreational Destination: 1894 to 1900

Some 20 years after the B&G rail line was organized, the mountainsides had been clear-cut, the blizzard of 1888 closed all roads for three months, and the railroad went out of business in early 1889. Some businessmen sought to revive it in 1894, calling it the Bennington and Woodford Electric Railroad. The line carried seasonal sportsmen, fisherman, picnickers, hikers, and fern pickers who camped out in the abandoned charcoal kilns and lumber camps. “Ferning,” in fact, became a summer activity that would continue to provide income to a few families who sold the decorative fronds to butchers and other retailers in metropolitan areas until plastic finally replaced nature’s design.



A colorized photo of the Glastenbury Casino with the Bennington & Woodford electric trolley and Bolles Brook in the foreground. Photo taken from the porch of the loggers boarding house, which was repurposed as the Pavilion Hotel during this time. 1897. Colorization by Tim Wager.



A close-up of the Bennington & Woodford electric trolley that brought visitors to South Glastenbury. Date uncertain.

The excursionists of 1894 provided the spark of the idea that blossomed in 1897 and 1898 into an attempt to transform the rough and abandoned South Glastenbury community into an attractive summer resort, served by the railroad. The identity has never been known of entrepreneurs who invested probably \$300,000 (in 2008 money) by converting the old logger’s boarding house into a hotel with a dance hall and dining room, and the company

store into a “casino” with a clock tower. They stocked the streams with fish and promoted summer tourism in Vermont’s mountains.

A news item in the Troy Times in September, 1897, described the fish hatchery, tennis courts, and plans for a possible new “cottage”: “This week six or seven well known New York physicians will arrive in Bennington and go to Glastenbury to look the place over, with the view of sending such patients as require high altitude, really pure water, and bracing mountain air.”

The singular summer of 1898 was memorialized by a euphoric description in the Troy Times, reprinted in the Bennington Banner, of “life in full midsummer swing at Glastenbury, a popular resort at the terminus of the Bennington and Woodford Electric Railroad.” The forest-clad domain, happy fishing parties, crystal streams, grand sweeps of mountain scenery, and delicious trout dinners were described glowingly.

Alas, that first season of the grand South Glastenbury resort was also its last because a massive flood, it was remembered as “the freshet of ‘98”, soon washed out the rail line and several bridges. Whether anyone saw a connection between the clear-cut forest and consequent flooding was not recorded. The newly renovated buildings were allowed to deteriorate back into forest compost. If photographs had not been taken, it would be hard to believe the resort had ever existed.

In the final decade of the 19th century, two murders took place in Glastenbury, and in neither case did justice prevail. In Fayville, on the evening of April 4, 1892, John Crowley, 38, a “jobber” at the Eagle Square sawmill, was murdered by Henry McDowell, another mill worker. Most versions of the story agree that an argument followed a night of heavy drinking and McDowell, who used the alias William Conroy, fatally struck Crowley with a chunk of firewood. McDowell-Conroy fled, rode freight cars to Canada, and finally turned himself in at South Norwalk, CT. Brought back to Bennington for trial, he was convicted, sentenced to life imprisonment, and assigned to the Vermont State Asylum at Waterbury. Allowed to work around the institution, McDowell-Conroy busied himself filling a railroad coal car, hid under a departing load, and was never seen again.

During the opening day of deer season in 1897, John Harbour of Woodford, age 40, was killed near Bickford Hollow, ostensibly by another hunter who mistook him for a deer. The perpetrator never came forward to acknowledge having fired the shot, but took the trouble to drag the body several yards and lay it out with care, accompanied by the victim’s loaded rifle, under a large hemlock limb. A massive search party took several days to find the nearly concealed corpse. When his widow, Nettie Eddy Harbour, died some 38 years later her obituary noted that she never had the satisfaction of seeing justice done.

Decline and Town “Unorganization”: 1900-1950

The 20th century was marked by continued decline in Glastenbury’s population: 48 in 1900, 29 in 1910, 40 in 1920, and only 7 in 1930. Five of those seven were Mattisons. The other two, Rowland and Caroline Hazard, were seasonal residents from Rhode Island. In the 1936 town report, Ira Mattison, his wife, and his mother, plus the Hazards, held all town offices.

In the 1937 session of the Vermont Legislature, Rep. Ira Mattison neglected to be sworn into office or even go to Montpelier, so his case was never presented when the issue arose of disincorporating both Glastenbury and Somerset. Legislators as well as news reports focused only on Somerset, where Rep. Katie Taylor had gained the reputation as a “dictator” of a one family town and her husband, John, faced criminal charges of abusing their foster children. Ira Mattison managed to travel to New York to appear on the “Believe It Or Not by Ripley” radio program, but he never got to Montpelier. The disincorporation drama played out in the pages of Vermont’s two morning dailies, the Burlington Free Press and the Rutland Herald.



A 1936 cartoon from the Ripley’s Believe It Or Not publication about the Mattison family comprising the entirety of Glastenbury.

Stripping local government from small towns was sensitive business in the Vermont House, where each of the 246 towns, regardless of population, had the same representation: one member. Larger towns were pleased and the smaller ones protested, but in 1937 the Vermont Legislature, by a vote of 138 to 52, declared Somerset and Glastenbury were “unorganized”, the only time in state history such action was taken.

In 1939 Ira N. Mattison died at the age of 45. The Bennington Banner carried his obituary on the front page. His mother died in 1945 and his wife and two sons moved to Bennington.

The perpetrators of the ghost-town legends were encouraged by the disappearances of Woodford woodcutter Middie Rivers in 1945 and Bennington College student Paula Welden in 1946. Though she was last seen walking up the Long Trail Road in Woodford, there is no evidence that Paula Welden ever set foot in Glastenbury. However, the fact that she vanished has prompted several writers to stretch facts and weave a mythology of missing persons, sometimes calling it the “Bennington Triangle”.

Land Consolidation and Residential Use: 1950- Present

When the official 1950 population dwindled to one, that single person became mythologized as the “dog man of Glastenbury.” This is actually a sad story of a veteran of World War I who was shell-shocked, as post-traumatic stress syndrome was then called. Clyde Elwell, born in 1889, had worked at Eagle Square, played the violin, and had had a wife and two daughters. He had also witnessed death and destruction during service with the 302nd Field Artillery in 1917 in France. His way of coping with the overwhelming memories was to isolate himself in an abandoned town with his Model T Ford and surround himself with as many dogs as possible. The trouble was that the dogs were unlicensed, unvaccinated, not neutered, and things got out of control. When Elwell became ill in 1958 the state police reportedly had to shoot many of dogs just to rescue him. He died at a Veterans Administration hospital in Northampton, MA, at the age of 68. His house was actually just over the town line in Shaftsbury, where the death was recorded; but he had become widely known as Glastenbury’s solitary “dog man.”

Mention has been made of the land holdings of Trenor W. Park, the Woodford native who made a fortune after the California Gold Rush. The focus here is on the McCullough end of the family because the Glastenbury heritage was carried on in curious way by Park's grandson, Hall Park McCullough. Born in San Francisco in 1872, McCullough lived most of his long life next to the mansion Park had built. Besides being the son of a Vermont governor, John G. McCullough (elected in 1902), H.P. McCullough was a partner at the Wall Street firm of Davis and Polk, and became a serious collector of Vermontiana – books, documents, autographs, maps and diaries dating to the earliest days. A man of wealth tempered by modesty, H.P. McCullough and his wife were also quietly responsible for the founding of Bennington College.

Less well known was the fact that H.P. McCullough collected parcels of land in Glastenbury, expanding on the ample base initiated by Park. What his real purpose was is anyone's guess, but he made sort of a game of it. "He collected land in Glastenbury like other people collect stamps," was the comment of his son-in-law, William R. Scott. During the 1950s, after the 19th century clear cuts had mostly regenerated, a family corporation, Glastenbury Timberlands, managed the McCullough and Scott properties and engaged in extensive logging and reforestation. William R. Scott's sons Paul and Trenor took active roles in these operations.

Among parcels McCullough did not acquire were some 300 acres with the summer home of Rowland and Caroline Hazard, who had purchased the land in 1930 and 1931 from Aurilla Mattison. Hazard had prospered in the pre-depression stock market and found this remote place where he could escape civilization. After World War II the Hazard place was purchased by another couple that had made a different kind of escape – from the Nazis in Vienna.

Dr. Richard Sterba and his wife, Dr. Edith Sterba, were both psychoanalysts who had trained in Vienna with Sigmund Freud and his daughter Anna. The Sterbas' home was in Michigan, where they both taught during the academic year. However, each summer for 40 years they arrived at their uninsulated home in Glastenbury, brought their horses, art, musical instruments, and a few patients who required continuity of treatment, and delighted in the forest isolation.

The Sterbas engaged local caretakers and struck up a special friendship with Hendrick "Henk" Schurick of Shaftsbury, a native of Holland who knew horses. Henk not only taught equestrianism but also transported the Sterba horses between Glastenbury and Grosse Point, Michigan, each Memorial and Labor Day.

The story of the Sterbas' escape from Nazi dominated Austria in 1938 was revealed in obituaries after Richard died in 1989. He had asked patients, instead of paying his fees directly, to deposit funds in Swiss bank accounts. Then he told the Nazis that he had an emergency patient to treat in Holland, and the couple was permitted to leave. They never returned. Their story was the basis for a 1943 fictionalized account, "The Trespassers" by Laura Z. Hobson.

The Sterbas were also musicians and friends of Rudolf Serkin of the Marlboro Music Festival. They combined their interests to co-author "Beethoven and His Nephew," a paperback that analyzed the way the musical genius, who never married, schemed to take

custody of the young son, Karl, of his deceased brother, also named Karl. The era of the Sterbas ended with her death in 1986 at age 92, and he placed the 340-acre property on the real estate market in 1987. Following a stroke, Richard Sterba died in October of 1989, age 91; both were memorialized by obituaries in the Detroit News and the New York Times.

An additional note on Glastenbury as a cultural center involves the Vermont Symphony Orchestra. In celebrating the 1984-85 season as its 50th year, the Symphony committed to performing in every town in Vermont. A woodwind trio duly appeared to play in August 1986. The concert, as reported in the Bennington Banner, was given on “a sun-dappled logging road.” Those attending “drove, biked or hiked to the site,” and numbered nearly one hundred, a number assuredly including every resident of the town.

When the substantial Sterba parcel became available in 1987, a land development firm, Properties of America of Williamstown, MA, picked up an option for \$10,000 towards the purchase price of \$400,000 and proposed to sell 16 lots for single-family homes. The development proposal soon attracted formidable opposition, and the town supervisor, Barbara MacIntyre of Bennington, went to the Bennington County Regional Commission (BCRC) to draft the text of an interim zoning ordinance. She, as the legislative body, enacted it in December, 1987. The ordinance allowed permanent dwellings but with permits issued as a conditional use subject to review by a zoning board appointed by the BCRC and confirmed by the supervisor.

An audience of 56 people attended a public hearing on the ordinance, an extraordinary expression of interest for a town of single-digit population. The Shaftsbury Fire Department said it would not assume added responsibilities in Glastenbury and the Shaftsbury School Board said it would take no more tuition pupils. Properties of America abandoned its plans after the hearing clarified the ways in which a town with no government, no school and no fire protection would be impacted by, comparatively, an inundation of new residents.



Sawmill ruins in the Glastenbury woods.

In May 1988 the Hazard-Sterba property was purchased for single-family residential use. The wooden Sterba summerhouse that had hosted so many sophisticated visitors was burned while the Shaftsbury Fire Department volunteered to stand by lest the forest catch fire. In its place arose a homestead of timber and stone, to be used for “occasional seasonal use but not permanent occupancy” by order of the new Glastenbury Zoning Board. On site of the Sterbas’ former riding ring a separate two-story house was built for a full-time caretaker.

In recent years the Scotts have sold large tracts of the former Glastenbury Timberlands Inc. land holdings to the United States Forest Service to be incorporated into the Green Mountain National Forest. As of today, Glastenbury is a town of some 27,000 acres, nearly 26,000 of which belong to the Green Mountain National Forest. There are three permanent households, one large seasonal home, and five camps sited on ten-acre in-holdings.

III. GLASTENBURY TODAY

3.1 Governance

As previously noted, the Town of Glastenbury is one of two unorganized towns in the State of Vermont. Pursuant to V.S.A. Title 24 Chapter 43, the Governor appoints one Supervisor for the unorganized towns in each county. Acting within his or her general duties, the Town Supervisor appoints up to four members to the Glastenbury Planning Commission and Zoning Board of Adjustment. The Town Supervisor also appoints the Zoning Administrator for a term of two years. The BCRC holds legislative public hearings for Town Plan and Development Regulation revisions and votes on adoption.

3.2 The People

The town has certainly changed dramatically since 1880 when its 241 residents were primarily involved in lumbering and the production of charcoal. Today there are only seven year-round residents in Glastenbury. The number of visitors to the town fluctuates with the seasons. There are six seasonal-use residences in Glastenbury. Spring and summer encourage many hikers – especially along the Appalachian/Long Trail –, berry pickers, birdwatchers, and fishermen to visit the town. Many hunters venture into the remote forests of Glastenbury each fall in hopes of supplying the dinner table with game and fowl.

The snow of winter months makes the town's old logging roads more accessible than perhaps any other season of the year. Members of local and state snowmobile clubs can be found cruising on designated snowmobile trails throughout town. The seclusion and tranquility sought by most cross-country skiers is conveniently found in Glastenbury.

3.3 Land Use

The total land area of Glastenbury is 27,341 acres. Nearly 94 percent of this land, or 25,618 acres, is within the Green Mountain National Forest. The Glastenbury Wilderness Area was established in 2006 (see Map 2). Of the remaining 1,723 acres, located predominantly around Fayville, over 1,170 acres are currently managed for private use. There are miles of gravel logging roads, requiring several bridges and many culverts. The State of Vermont owns about 89 acres, which constitutes the U.S. Route 7 right-of-way.

The United States Forest Service (U.S.F.S.) manages land holdings through the policies of the Green Mountain National Forest Land and Resource Management Plan. The Glastenbury Town Plan acknowledges the need for compatibility with this management plan. In the event of any National Forest lands transferring into private ownership, such land would become subject to the policies of the Glastenbury Town Plan and Zoning Bylaws.

3.4 Zoning

The Town's first Zoning Bylaws were adopted on December 11, 1987. New bylaws were adopted in 1990 and those have been revised multiple times, most recently in 2021. Under the

terms of the Vermont Planning and Development Act, a town must adopt and have in effect a Town Plan before it can adopt or amend bylaws to guide and control future development.

Amending and adopting Zoning Bylaws for a remote, mountainous, and largely uninhabited town must be approached with much thought and care. Due to the absence of any municipal services in the town, and because the only road that leads there enters from the East Road in Shaftsbury, it is most likely that any new permanent residence in town would depend on services available in Shaftsbury. The Zoning Bylaws are centered on impacts to the environment and existing rural residential uses, as well as financial impacts on Glastenbury itself and surrounding towns. These bylaws aim for environmentally sound development that allows property owners options and a fair return on their investments.

There are two zoning districts in the Town of Glastenbury. Forest District One is located in the northwestern portion of town along Glastenbury Road. This area comprises approximately 360 acres of the town's lowest elevations. It would be most efficiently served by public facilities, utilities, and roads. Permanent single-family dwellings on a minimum lot size of twenty-five acres are allowed as a conditional use.

Forest District Two, for zoning purposes, consists of the remainder of the town. Due to the presence of mountainous topography, watershed areas that require protection in order to protect the quality of water, and the inefficient development of roads, utilities, and public services, Forest District Two discourages land development. The only dwellings allowed in Forest District Two are seasonal camps which are not suitable for use as a permanent primary dwelling. The minimum lot area in the Forest Two Zone is twenty-five acres. (For more information see the Glastenbury Zoning Bylaws and Zoning Maps at the Bennington County Regional Commission's website)

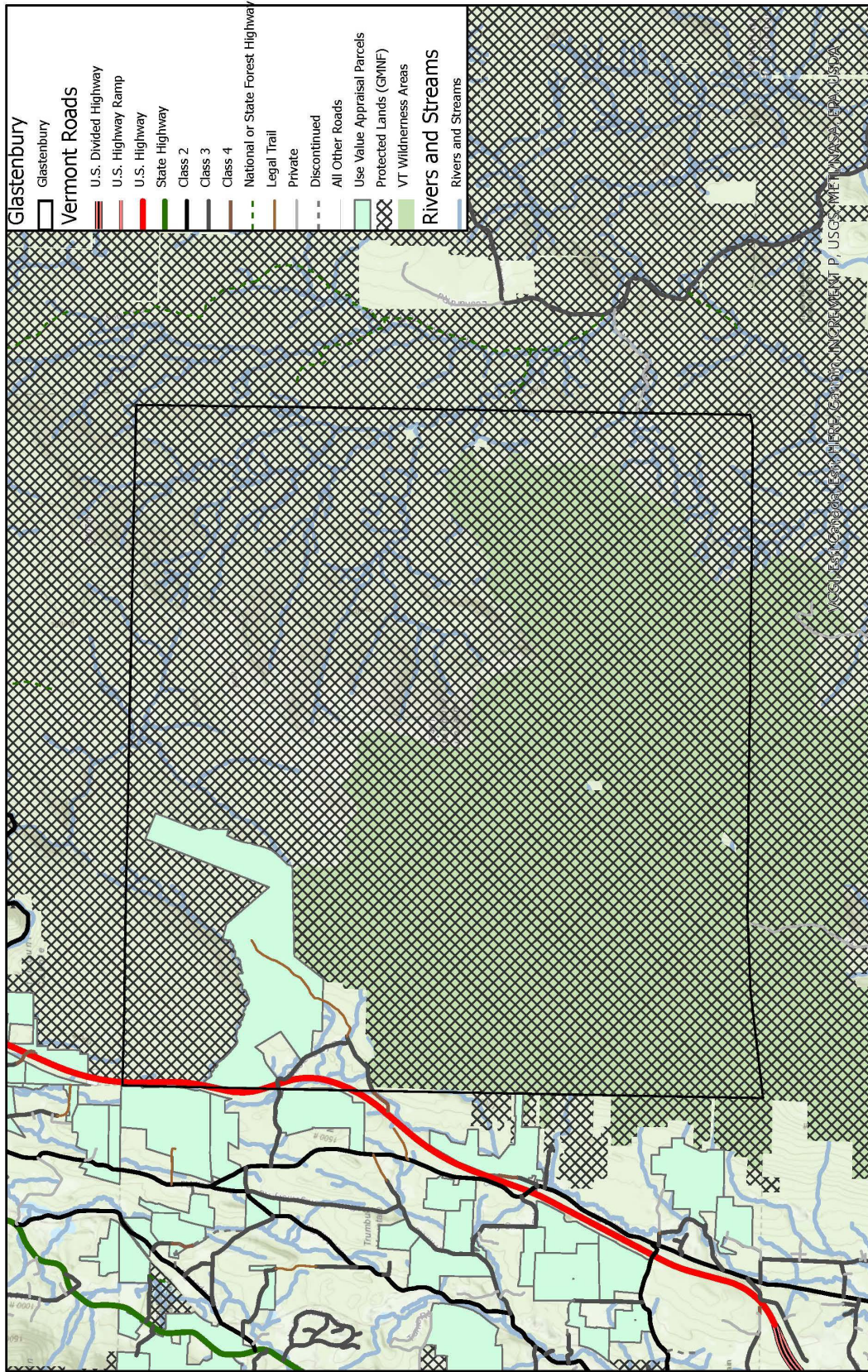
3.5 Fiscal Procedures

Listers appointed by the Town Supervisor periodically appraise properties. Their grand list is presented to the Supervisor, who prepares the annual budget, determines the tax rate, and collects the taxes. These monies, with any other revenue, are deposited in the Glastenbury account maintained by the State of Vermont to be dispersed for education, maintenance and other expenses incurred on the Town's behalf.

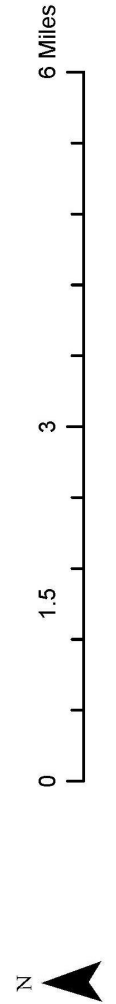
Glastenbury receives annual funding from two sources: PILT (Payments in Lieu of Taxes) payments from the Federal Government for federal land holdings in the town and a rural school payment from the State of Vermont. The PILT payments are delivered directly to the Bennington County Court System and the Town of Glastenbury is not able to access these funds or obtain information about how they are expended. The disbursement of federal ARPA (American Rescue Plan Act) funding beginning in 2021 offers an opportunity to clarify the flow and use of these funds.

Map 2: Open Space and Protected Lands

Map 2. Town of Glastenbury Open Space and Protected Lands



This map was created by the Bennington County Regional Commission in August of 2021.



IV. PHYSICAL CHARACTERISTICS

Physical characteristics of the land shape an area's suitability for various land uses. Factors such as steep slopes, high elevations, shallow soils, poorly drained soils, and flood-prone areas can pose serious limitations for development. Identifying and analyzing these characteristics in the town are essential steps in the development of detailed planning policies.

4.1 Topography

Glastenbury is marked by highly variable topography, ranging in elevation from 1,100 feet to 3,748 feet above sea level. Such topography causes development in these areas to be very conspicuous and prone to cause adverse environmental impacts.

4.1.1 Slopes

Topography can be classified by slope or gradient. A slope of 0 to 5 percent is usually suitable for all types of development; 5 to 10 percent is ideal for residential development; 10 to 20 percent has moderate limitations for development; and above 20 percent there are serious limitations for development due to thin soils, erosion risk, and difficult road construction. Environmental degradation of steep building sites can result in erosion, sedimentation, loss of soil stability, habitat destruction, and water pollution due to poor septic suitability. Map 3, the slope and high elevations map, identifies areas with severe gradients, where the above difficulties are likely to be encountered.

4.1.2 High Elevations

Glastenbury's numerous mountains include twelve elevations higher than 3,000 feet. Elevations above the 2,500 feet contour have been identified by the State as extremely fragile and susceptible to damage (see Map 3). There are a number of reasons for this including greater precipitation, shallow and poorly drained soils, lower air and soil temperatures, and the existence of vegetative communities lacking diversity. Land above this elevation also has meaning under Act 250, which subjects all land development above 2,500 feet elevation to a review process.

4.2 Geology and Soils

4.2.1 Geology

The earth's physical structure and composition and the processes that produce and shape it – its geology – impact the types of built development a place can support and underpins the biota that arises and flourishes there. Glastenbury's geology has been shaped by the legacy of glacial movements and deposits.

Map 4 shows two representations of the town's geology: surficial and bedrock. Surficial geology shows unconsolidated rock materials on the surface of the ground, whereas bedrock geology shows consolidated rock material at the surface of the bedrock. Surficial geology is visible at the surface and bedrock may be visible where bedrock is exposed but is more often buried below the surficial geology. The ground surface in Glastenbury consists mostly of rock

deposits left by glacial movements. In lower elevations, rain and water flows have established areas of pluvial and fluvial deposits over time. Bedrock in the town consists of biotite gneiss and quartzite rock. Each bedrock and surficial material type has distinguishable characteristics that are interpretable in terms of their potential success or failure of planned uses on a given parcel of land. Consequently, implementation of this plan requires that all land development in the town be pursued with strict regard to the capability of the underlying geology in the intended area.

4.2.2 Soil Characteristics

Glastenbury's soils formed since the last glaciation, either on bedrock or more commonly on glacial till, the highly variable mixture of material deposited by glaciers. The soils in the northwestern part of town, representing a large portion of the privately owned lands, are the most likely to impact land use policies since future development will be concentrated there. According to Map 5, which shows soil depth to bedrock and drainage characteristics of the soil, the soils in the northwestern parts of town are sufficiently deep to support low-density residential development and soil drainage qualifications range from well drained to excessively drained and are suitable for soil-based, decentralized wastewater systems.

4.3 Land Cover

As shown in Map 7, Glastenbury is covered almost entirely with forest. Most forest is deciduous, with additional significant areas covered by mixed and evergreen forests. Woody wetlands are also common in Glastenbury, especially on the eastern side of the town. Small areas of scrubland, emergent herbaceous wetland, and open water contribute to the diversity of the Glastenbury landscape and its flora and fauna.

Glastenbury's predominance of contiguous forest combined with varying elevations and other diverse habitat areas make the town very valuable for supporting and sustaining wildlife in the region. Land conservation efforts in the town have been effective at preserving this crucial landscape (see Map 2). For more information on Glastenbury's role in preserving wildlife movement and population stabilities, see Section 5.2.1 on Forest Blocks.

4.4 Flood and Fluvial Erosion Hazard Areas (River Corridors)

Streams and rivers often have adjacent flood and erosion hazard areas that pose threats to new and existing development. Due to Glastenbury's high elevation, there are no flood hazard areas currently mapped in the town, but several streams have mapped erosion hazard zones. Flood hazard areas address hazards from flooding due to inundation. Fluvial erosion occurs when a stream or river's path naturally meanders across a stream channel over time. Impacts of fluvial erosion include gradual stream bank erosion or, in the case of major natural events, stream bank collapse or major channel enlargement or movement.

Two types of fluvial erosion zones are mapped in the State of Vermont. Minor streams draining between ½ acre and 2 acres of land area require that development be setback at least 50 feet from the stream bank. See Map 6 for details. For large streams and rivers draining broader areas, the Agency of Natural Resources has performed geomorphic analyses to map river corridors that represent the space needed for horizontal adjustments of river and stream

channels as they meander. Restricting new developing within river corridors protects the waterway's ability to flood, distribute sediment, and disperse energy, thereby reducing the damaging erosive power of the stream flow. River corridor protection is also in alignment with other state and community goals such as clean water, wildlife habitat, and public recreation.

Flood hazard areas are mapped nationally by the Federal Emergency Management Agency (FEMA). No flood hazard areas have been identified in Glastenbury by FEMA, therefore, the town is not eligible to join the National Flood Insurance Program that would provide access to flood insurance for anyone in the community.

Most flood damage in Vermont streams is the result of fluvial erosion. Vermont has established a statewide goal of flood resilience, encouraging communities to protect river corridors and establishing the Emergency Relief and Assistance Fund (ERAF) as an incentive for communities to take hazard mitigation actions before the next declared disaster. In federally-declared disasters, qualified losses may be reimbursed through the federal public assistance program and the Vermont Emergency Relief and Assistance Fund (ERAF), whose funding depends on local compliance with a set of requirements. However, conversations in January 2022 with Vermont Emergency Management staff indicated that as an unincorporated town Glastenbury is not eligible to participate in the ERAF program. Planning activities promoted through the ERAF program such as adopting the Town Road and Bridge Standards, maintaining a Hazard Mitigation Plan, and protecting river corridors in the zoning bylaw present other advantages to the town, though. To maximize preparedness for emergency situations due to flooding and fluvial erosion, the town should coordinate and maintain communication with the state and emergency response organizations in neighboring towns that serve Glastenbury.

4.5 Policies for Flood Resiliency:

4A: To protect the public health, safety and welfare, new development should be avoided in Special Flood Hazard Areas and River Corridors

4B: Any new development that must occur in Special Flood Hazard Areas and the River Corridors shall be designed and sited so as to prevent any increase in flooding or erosion.

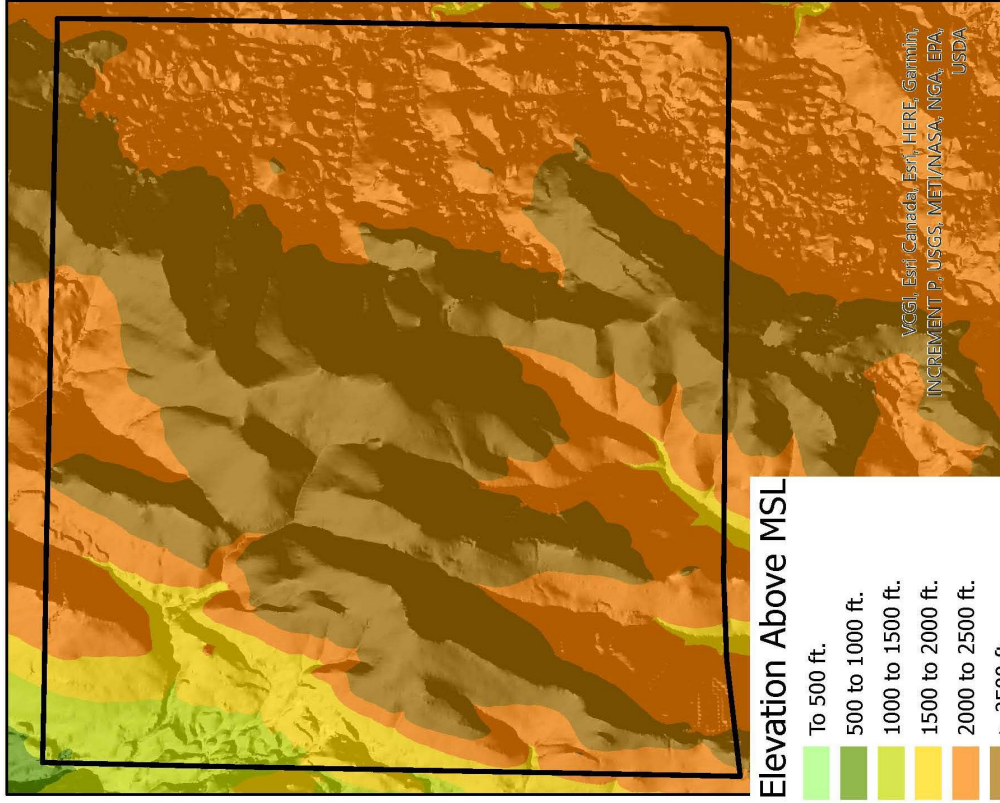
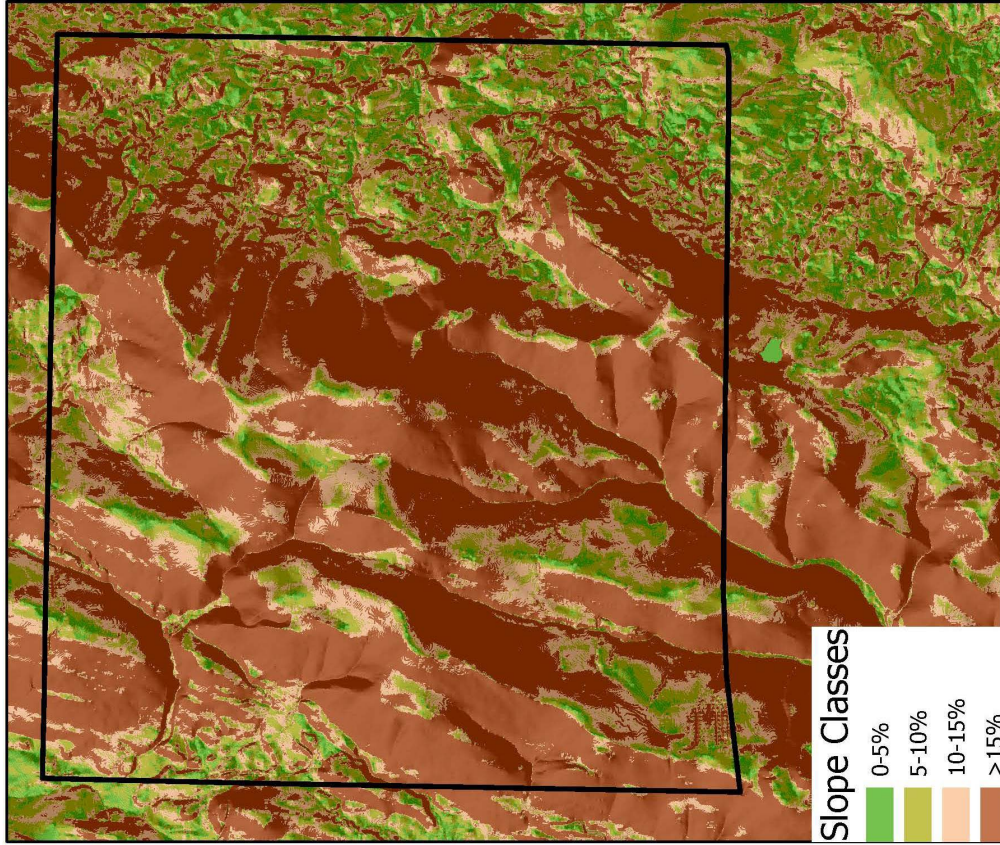
4C: Support acquisition by public entities or conservation organizations of buffers and River Corridors, especially those identified in hazard mitigation and river corridor plans.

4D: Forested lands should be protected to assure that precipitation can be absorbed by forest soils and litter and the peak flow attenuated. Current Use assessment should be used to protect these areas, especially along the tributaries.

4E: The Town should collaborate with other municipalities, the BCRC, and the State of Vermont in planning for the use and protection of regional water resources such as the Fayville Branch and Bolles Brook This could involve an inter-municipal agreement between these towns for the long-term protection of these resources and to address flood hazards.

Map 3: Slope and Elevation

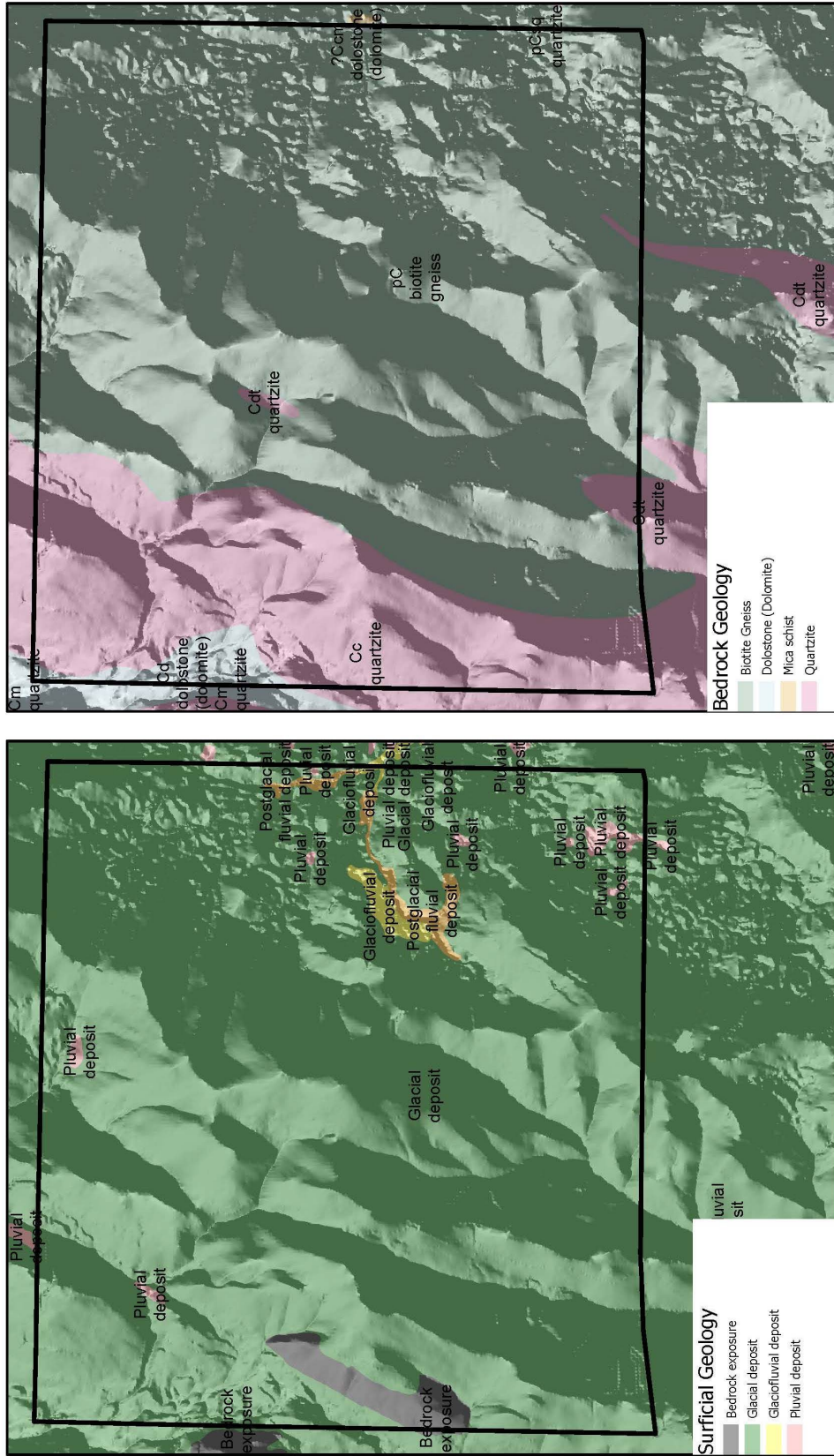
Map 3. Slope and Elevation



This map was created by the Bennington County Regional Commission in August of 2021.

Map 4: Surficial and Bedrock Geology

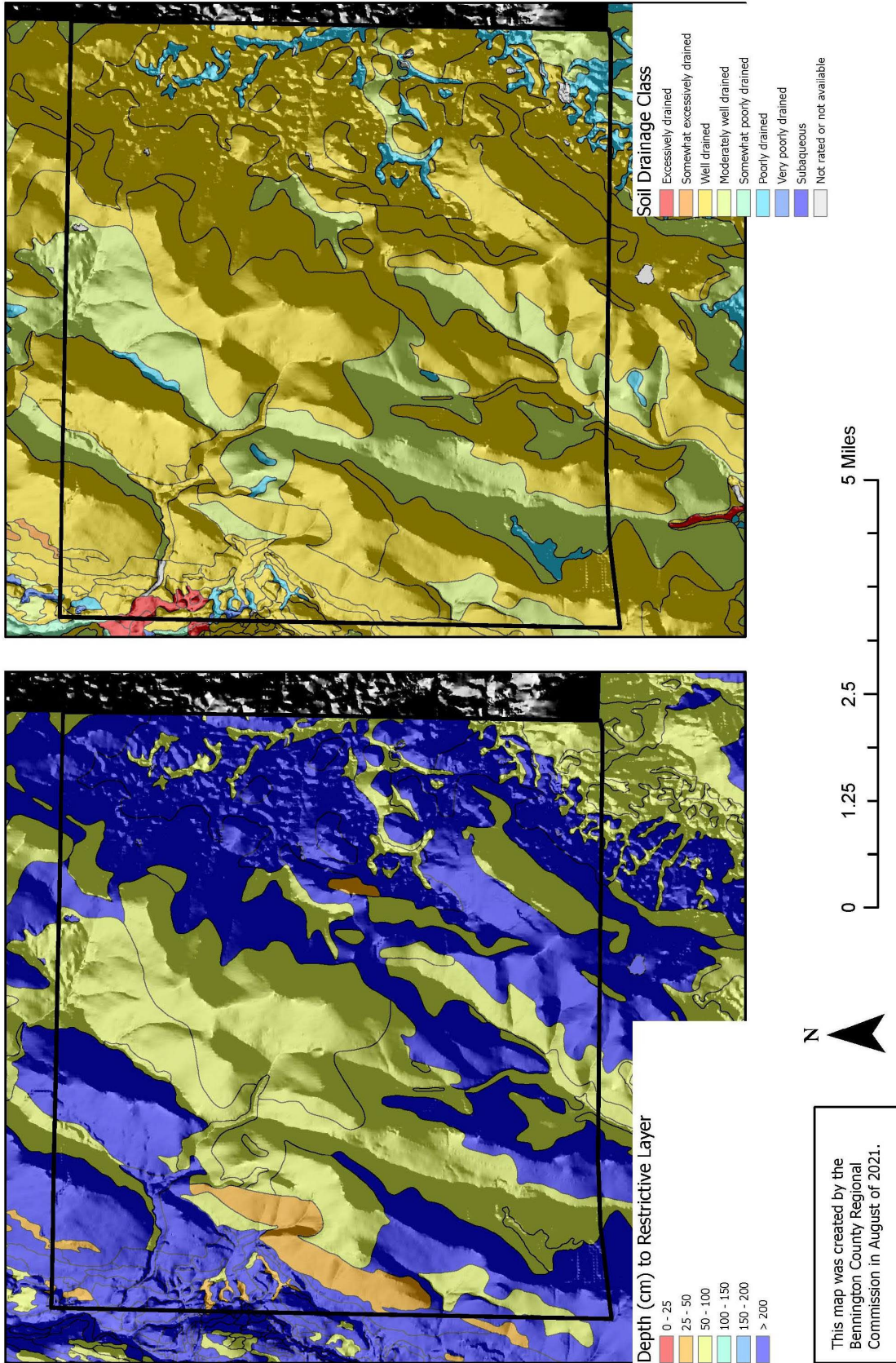
Map 4. Surficial and Bedrock Geology



This map was created by the Bennington County Regional Commission in August of 2021.

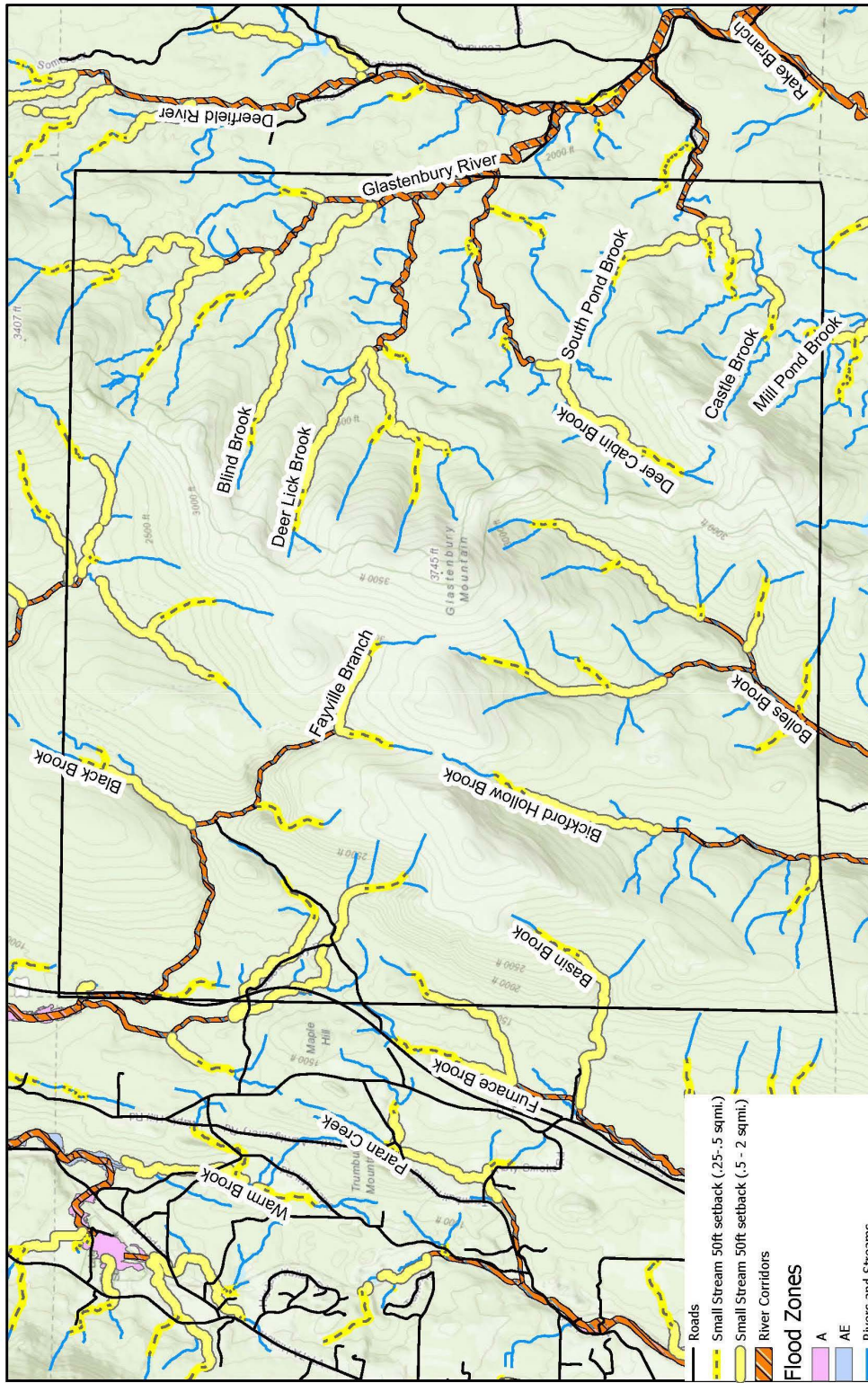
Map 5: Soil Characteristics

Map 5. Soil Characteristics

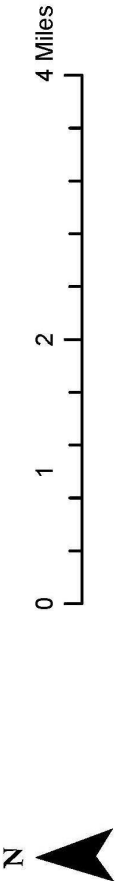


Map 6: Flood Hazard Areas and River Corridors

Map 6. Flood Hazard Areas and River Corridors



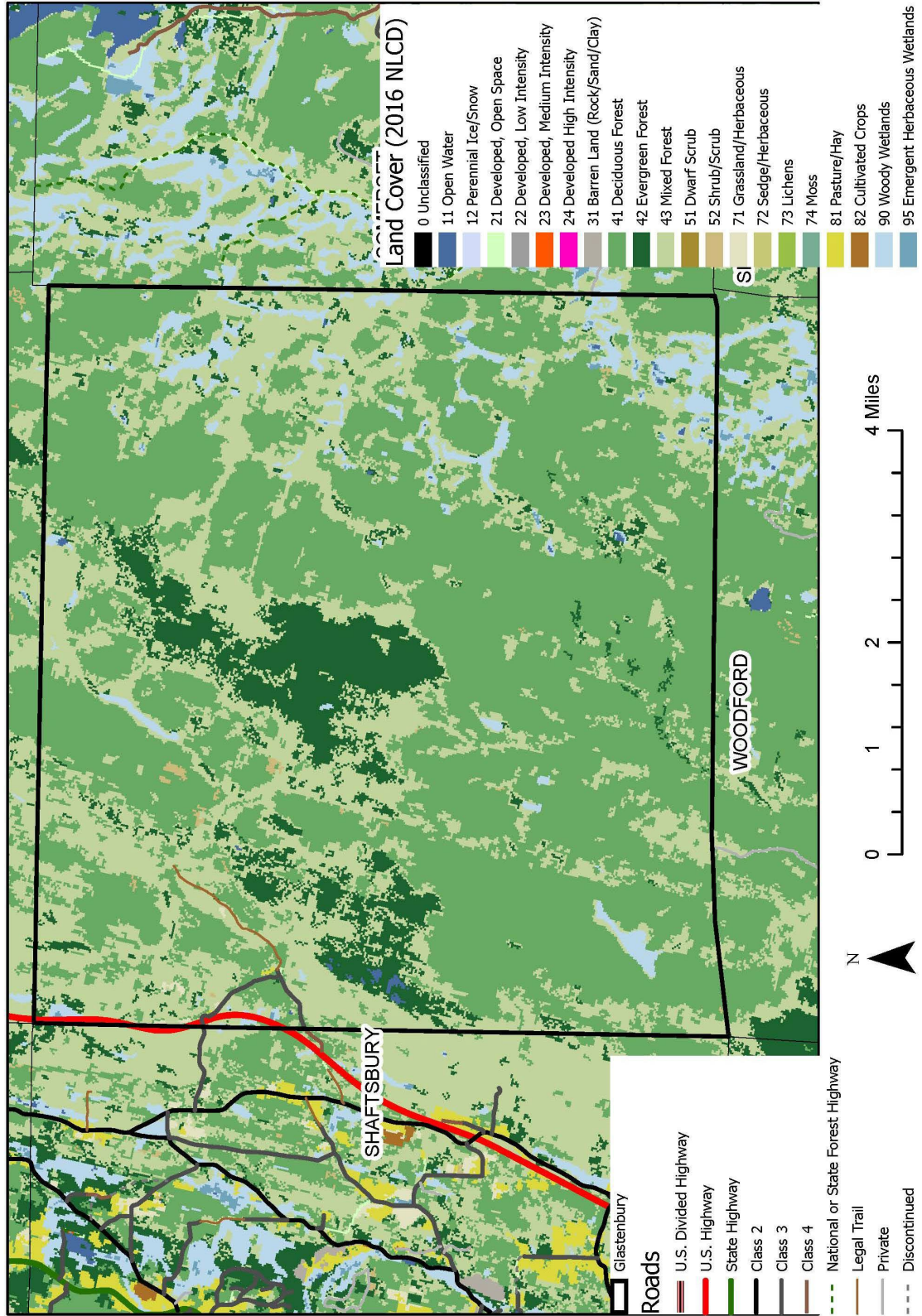
This map was created by the Bennington County Regional Commission in August of 2021.



Map 7: Land Cover

Map 7. Glastenbury Land Cover

This map was created by the Bennington County Regional Commission in August of 2021.



V. NATURAL RESOURCES

There are many features of the Vermont landscape, which are sensitive and vulnerable to development. These features include:

- Water Resources – Surface waters; Wetlands and hydric soils; Upland watersheds and aquifer recharge areas
- Forest Resources – Forest blocks; Wildlife habitat and natural communities; Forest soils;
- Scenic Resources – Ridgelines
- Agricultural Soils
- Sand and Gravel Deposits

These features are essential to the environmental character of Glastenbury. They should be viewed as irreplaceable resources of regional significance that can be adversely affected by encroachment or alteration. Careful planning can protect these features while allowing development to occur.

5.1 Water Resources

5.1.1 Surface Waters

The rivers and brooks that drain Glastenbury include: Fayville Branch, Roaring Branch, Glastenbury River, Blind Brook, Deer Lick Brook, Deer Cabin Brook, South Pond Brook, Bolles Brook, Bickford Hollow Brook, Furnace Brook, and Basin Brook (see Map 8). The protection of these high quality waterways is directly related to the protection of watersheds, wetlands, and aquifer recharge areas. The protection is particularly important in Glastenbury because of the dependence on springs, rivers, and groundwater for the private and public water supplies of Bennington, North Bennington, Shaftsbury, and Arlington.

Streams and drainage ways require protection from destruction, diversion, and contamination to protect the hydrological system so essential for meeting public water supply and natural resource requirements. Development along the banks of streams can cause erosion and siltation, increase the potential for contamination from septic systems, and destroy wildlife habitat. The streams in the Town of Glastenbury should be maintained in a natural, free-flowing condition and natural streamside vegetation should be maintained to avoid erosion.

5.1.2 Wetlands and Hydric Soils

There are many small ponds and wet meadows scattered throughout Glastenbury. These natural wetlands represent a type of habitat that, once destroyed, cannot be replaced. Numerous animals use wetlands and a large number of game and non-game birds are dependent on wetland habitat. In addition to these biological functions, wetlands serve as water storage areas during flood periods. The loss of this flood storage capacity will affect stream behavior and could result in higher peak flows during large precipitation events.

A number of significant wetlands have been identified and mapped through the National Wetland Inventory by the United States Fish and Wildlife Service (see Map 8). The filling of these areas endangers the ability of wetlands to serve their important functions. Hence, wetlands and the lands adjacent to them should be preserved in their natural conditions.

Hydric soils are soils that are saturated with water for all or a portion of the year. Hydric soils are often referenced when delineating wetlands. Hydric soils are a good indicator of wetland boundaries and where development limitations could apply. Map 8 shows some of the extensive areas of hydric soils that are mapped in Glastenbury but other, smaller areas of hydric soils are present throughout the town.

The natural state of the mainstream channels, the adjacent land and wetlands, and their visual appearance present an irreplaceable asset that deserves special protection and management. Wetlands provide habitat for a wide diversity of wildlife species and serve as flood storage areas during flood periods. Guiding development within these areas can serve to retain open space, maintain high quality water for municipal water systems, and minimize hazards from flooding, erosion, and sedimentation.

5.1.3 Upland Watersheds and Aquifer Recharge Areas

The most regionally significant of all of Glastenbury's resources is its plentiful supply of high quality water. Three communities in the region are directly dependent upon Glastenbury for their drinking water supplies (see Map 8). The Bolles Brook and Bickford Hollow watersheds are crucial elements of the Bennington municipal water supply system. These drainage basins are designated as watersheds with surface water source protection areas (SPAs).

Basin Brook is the main source for the North Bennington and Shaftsbury public water system. This watershed is defined as a groundwater SPA by the Vermont Department of Health. A groundwater SPA is defined by the EPA as the land area that contributes water to the drinking water supply and where pollution from human activities or natural sources poses the greatest threat to source water quality.

Currently all of the major watersheds in Glastenbury fall in the Forest Two District. The entire western slope of Glastenbury's west ridge acts as aquifer recharge areas for Shaftsbury's groundwater supply. Indeed, the entire town serves as a regional aquifer. It is essential that Glastenbury's upland watersheds and aquifer recharge areas receive the utmost protection from degradation, erosion, and contamination. Vigilance is required to protect not only the quality, but also the availability, of potential water sources.

5.2 Forest Resources

5.2.1 Characteristics and Mapping

Glastenbury falls within the Southern Green Mountains Biophysical Region. Detailed mapping of cover types has not been completed except that available from the National Land Cover Dataset. From that source, the major cover types are deciduous forest (55.6%), mixed forest (31.3%) and coniferous forest (9.2%), along with wetlands, most of which are forested (3.3%) (Map 7). Matrix forest types likely within this biophysical region include: Montane Spruce-Fir Forest, Montane Yellow Birch-Red Spruce Forest, Northern Hardwood Forest, and Red Spruce-Northern Hardwood Forest.

These matrix forest types cover large areas and may have numerous other community types, including terrestrial communities, wetlands, and stream courses within them. Matrix forests form the “basket” in which a diverse array of natural communities exists. These smaller communities are maintained by variations in environmental gradients such as soil depth, depth to groundwater, exposure to wind and solar radiation, disturbance, and other factors. An ecologically functional landscape is one that provides for connectivity across a broad range of habitat types and physical features such as slope, aspect, and elevation. The following are the key types:

Interior Forest Blocks (Map 9) are areas of contiguous forest, unfragmented by roads, development or agricultural lands that may also contain wetlands, waterbodies, and other features. These areas are critical to wide ranging species as well as Neotropical migratory bird. They also are likely to be most resilient to climate change.

Connectivity Blocks (Map 9) overlap with the High Priority Interior Forest Blocks and link forests and other habitat providing for the movement of wide-ranging species such as black bear and bobcat and animals with small ranges such as amphibians that breed in wetlands and vernal pools. They also provide habitat for many forest nesting birds that migrate to and from the tropics. These blocks cross local, county and state and sometimes international boundaries.

Physical Landscapes Diversity Blocks are areas of natural vegetation that may contain unique geologic, topographic and vegetation characteristics, and may also overlap with the above-mentioned types. Within Glastenbury, are over 60 types categorized by elevation (high, low to mid, mid to upper), geology (acidic, calcareous, moderately calcareous, metasedimentary/calcareous) and slope position. These categories represent different potential habitat types as well as landscape variants that may be more or less vulnerable to climate change.

Riparian Wildlife Connectivity (Map 9): Surface waters along rivers and streams that contain natural vegetation and provide connectivity between high to low elevations.

Terrestrial Wildlife Crossings are road segments with suitable habitat on both sides of the road that provide connections for movement of animals. Basically, all roads in Glastenbury fall into this category (Map 10).

Riparian Wildlife Crossings are areas where wildlife may cross streams near roads and largely match up with terrestrial wildlife crossings.

For the purposes of making the plan more readable, the above will be referred to as “unfragmented forest blocks and connectors.” Map 10 shows interior forest blocks and connectivity blocks across southern Vermont including the towns adjacent to Glastenbury.

5.2.2 Forest Blocks

Unfragmented forest blocks (contiguous tracts of forestland) provide crucial wildlife habitat to plant and animal species that rely on large tracts of undisturbed terrain to subsist,

reproduce, and migrate over time. Land development and forest fragmentation can significantly reduce or destroy the carrying capacity and connectivity of these environments.

In recognition of the unique value of contiguous forest blocks, in 2018 the Agency of Natural Resources assessed and mapped forested areas across the state and rated them for their value as habitat areas and connectivity corridors for wildlife. See Maps 9 and 10. By focusing on continuous forest cover rather than specific species habitats, this approach highlights the common areas and significant territorial ranges many species of plants and animal require for their populations to thrive.

In addition to providing forest products, wildlife habitat area, and recreational opportunities, forested lands provide important ecosystem services that are vital to human communities. Among other services, forests capture and filter rainwater and store vast quantities carbon. As the amount of precipitation and the frequency of high-volume precipitation events are predicted to increase as a result of climate change, forest lands can help reduce stormwater runoff and flood hazards. Forest growth can sequester carbon dioxide and mitigate increased human-caused carbon dioxide emissions. The preservation of wooded areas in Glastenbury is an important climate change mitigation strategy for the town and for the region.

Much of Glastenbury's forest blocks are already protected as the GMNF, which includes the federally-designated Glastenbury Wilderness area, and through Vermont's Current Use tax equalization program, though it is important to remember that Current Use enrollment does not offer permanent conservation, as enrollment can be terminated (see Map 2). The town further recognizes the value of its forest blocks through its land use planning designations.

5.2.3 Wildlife Habitat and Natural Communities

The abundant and diverse forests of Glastenbury, combined with many streams, ponds, and wet meadows, provide rich wildlife habitats. Examples of wildlife common in Glastenbury include deer, moose, black bear, fisher, beaver, coyote, fox, ruffed grouse, turkeys and raptors. Many of these species require large, undeveloped tracts of land for their survival.

For example, deer wintering areas, consisting of thick stands of evergreen trees, provide shelter from the elements, readily accessible food supply, and important herd structure. The quantity and quality of this winter range is a prime limiting factor of the deer herd, particularly at higher elevations. Additionally, the black bear is a sensitive environmental indicator for remote forestland. In 1989 the Vermont Fish and Wildlife Department published a black bear habitat map. The entire Town of Glastenbury was designated at that time as "bear production habitat." Large, intact and unfragmented forest blocks provide habitat for many wide-ranging species such as the black bear. They also contain a variety of habitats used by more range-limited species that may move between suitable habitat patches. Unfragmented forest is critical to neotropical migratory birds as well.

Glastenbury's many streams and ponds provide habitat for fish, birds, and mammals. The cold, clear streams are the spawning grounds of trout. Many small ponds provide nesting, feeding, and resting areas for a diversity of waterfowl and songbirds. Ponds and the wet meadows often associated with them provide succulent wetland vegetation desired by moose and other mammals.

A number of rare plant and animal species and rare and unique significant natural communities are present in Glastenbury. See Map 11 for the location of some of these occurrences. The Vermont Wildlife Diversity Program of the Vermont Fish and Wildlife Department has mapped an occurrence of a spruce-fir forest on East Mountain which is considered to be old growth and undisturbed as well as a rare alpine natural community at the summit of Glastenbury Mountain. The location of other rare and uncommon natural communities has not been formally mapped but areas are known to people who explore the town. Negative impacts on these natural areas should be avoided by maintaining appropriate setbacks for all development areas, a minimum of 100 feet as stipulated for other critical areas in this plan.

5.2.4 Forest Soils

Sustained yield of forest products is totally dependent upon the sound management of natural resources. The most limiting factor in timber production is the soils present in the given area. Soils vary greatly in their suitability for woodland management. Problems that arise in forestry include soil erosion, equipment limitation, seedling mortality, and wind throw hazard. Timber management plans that assess the soil's suitability are critical to achieving long-term productivity while avoiding potential management problems. If potential problems are ignored or are not correctly compensated for, the resulting detrimental impacts may become widespread and long lasting.

5.3 Scenic Resources

By virtue of high visibility from Route 7, as well as its undeveloped character, Glastenbury is a regionally significant scenic resource. All the sensitive areas and natural resources previously described can be regarded as scenic resources. In the site planning of future development, careful consideration should be given to impacts upon views of Glastenbury from surrounding areas as well as individual sites within Glastenbury. Measures should be taken to avoid undue adverse impacts on the aesthetics of the town.

5.3.1 Ridgelines

Ridgelines, especially those visual focal points in public view, are significant not only to Glastenbury, but also to the region. Highly visible development and extensive clearing of vegetation spoil the natural beauty of these ridgelines. Development in these sensitive upland areas can also lead to erosion, sedimentation and water pollution. Development along the ridgelines should be discouraged to preserve their natural beauty, prevent adverse impacts on the environment, and ensure safe access.

5.6 Agricultural Soils

The amount of primary agricultural soils in Glastenbury is very limited. Development should tread lightly on any lands with the potential for agricultural use, since development can permanently preclude agricultural use of soils.

5.7 Sand and Gravel Deposits

Vermont Center for Geographic Information (VCGI) data show minimal deposits of sand and gravel resources in the Town of Glastenbury, though the VCGI data is not an exhaustive inventory of earth resource deposits in the town. Any extraction and processing of sand and gravel should not impose adverse effects on adjacent property, the residents of the town, or significant wildlife habitat. Any operations shall be screened from public view and regulated in order that the health, safety, comfort, and convenience of present and future residents are protected. Any extraction or processing proposal must include a plan, acceptable to the Development Review Board, for the extraction and rehabilitation of the site at the conclusion of the extraction or processing activities.

5.8 Natural Resource Policies:

General Policies

5A: Any development or land use that encroaches upon or adversely impacts any rare or unique natural resource areas, species, or habitat areas, including but not limited to all areas protected by ANR policies, shall not be permitted. Should conditional exceptions be requested, expenses of technical assessments that may be stipulated shall be borne by the owner or a prospective developer.

5B: The natural features of the land such as ridgelines, wetlands, and unique natural areas should be preserved for their scenic and educational qualities.

5C: Voluntary contributions, including donations of land or interests in land, and bargain sales to public or private land trusts are supported by the Town Plan.

Water Resources:

5D: The ecological and hydrological integrity of rivers, streams, and wetlands should be maintained to provide key ecosystem services such as water purification, pollutant abatement, nutrient dispersal and cycling and flood water retention. Rivers, streams and wetlands should be protected from incompatible development and land uses to allow for continued recreational use and to provide valuable scenic resources.

5E: Encourage conservation areas for lands within major watersheds.

5F: Strictly maintain and monitor sewage and solid waste disposal in areas with high groundwater potential and high water table to avoid groundwater pollution.

5G: Preserve the natural state of streams and wetlands by maintaining them in a free flowing state; that is, without impoundments, dredging, filling, draining or other alterations.

5H: An undisturbed buffer of natural vegetation should be established between rivers, streams and other water bodies to reduce nutrient input and attenuate overland flow. This buffer should be at least 100 feet for streams such as Fayville Branch with significant potential for lateral or vertical adjustment. No buildings, structures, excavation, filling or grading shall be permitted within 100 feet from the normal bank of any wetland, stream, or watercourse.

5I: The State of Vermont Best Management Practices shall be adhered to while logging in the vicinity of perennial streams and wetlands.

5J: The Town and organizations including the U.S. Forest Service, Vermont Agency of Natural Resources, BCRC, the Bennington County Conservation District and others should work together to maintain and enhance the ecological integrity of rivers, streams, wetlands and upland forests, including avoiding fragmentation of those natural systems.

Forest Resources:

5K: Land use policies and development review practices should consider forest block habitat analyses to avoid forest fragmentation and to protect wildlife populations from decline.

Agricultural and Forest Soils:

5L: Development in areas of prime agricultural and forest soils should be clustered to preserve these soils, as much as possible, in their natural state.

5M: The construction of utilities, roads, and other physical modifications should skirt large tracts of prime agricultural and forest soils rather than divide them.

Sand and Gravel Deposits:

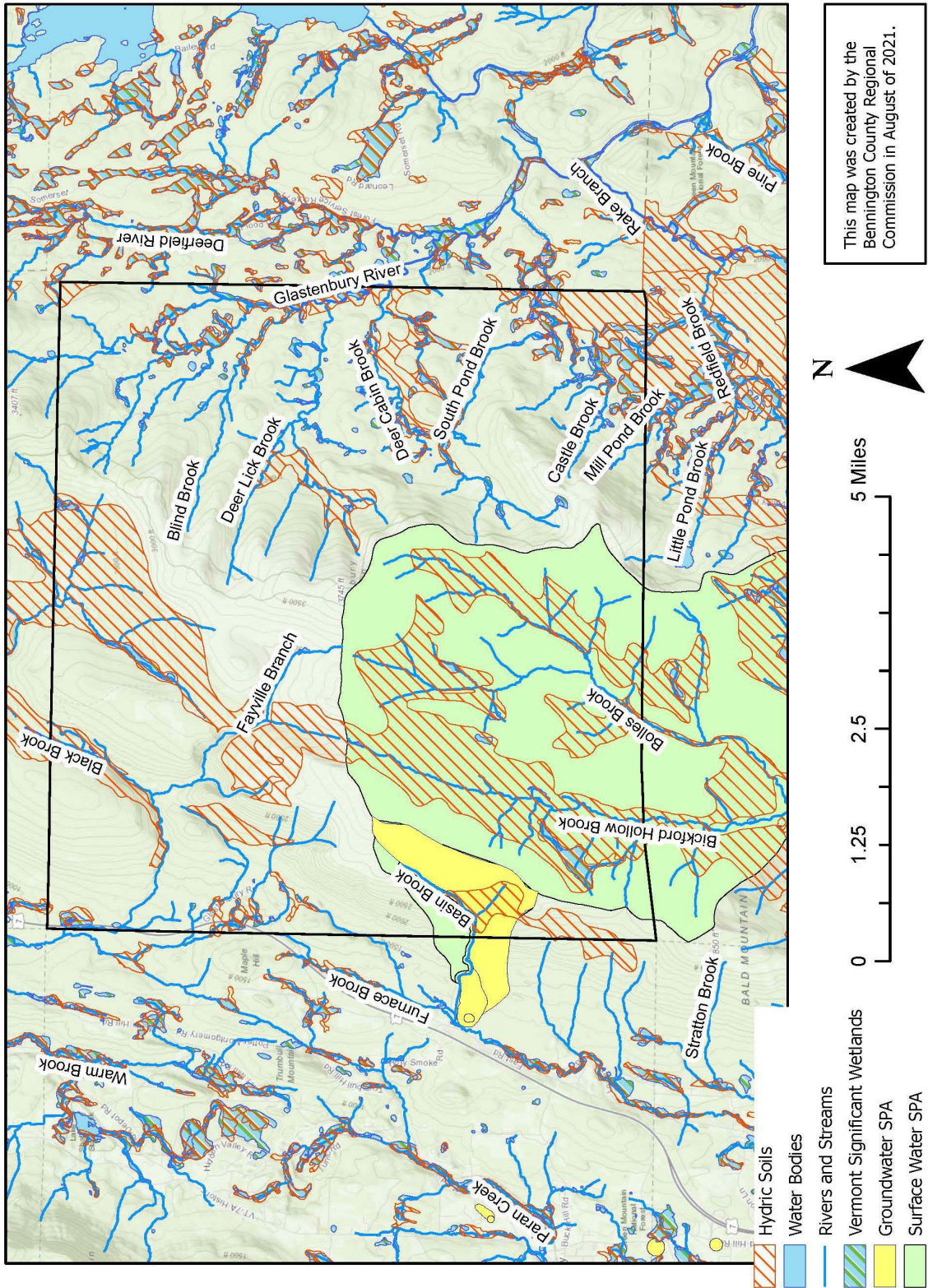
5N: Private, onsite sand and gravel extraction requires a permit and commercial operations are not permitted. Sand and gravel extraction projects in Glastenbury should be limited to those needed by demonstrated demand and capable of being rehabilitated at the conclusion of the extraction or processing activities.

5O: The extraction and processing of sand and gravel, access to deposits and the disposal of wastes shall not adversely impact the environment or surrounding land uses, wildlife habitat and the health, safety, comfort or convenience of present or future residents.

5P: Any extraction or processing proposal must include a plan, acceptable to the Development Review Board, for the extraction and rehabilitation of the site and access created for the project at the conclusion of the extraction or processing activities.

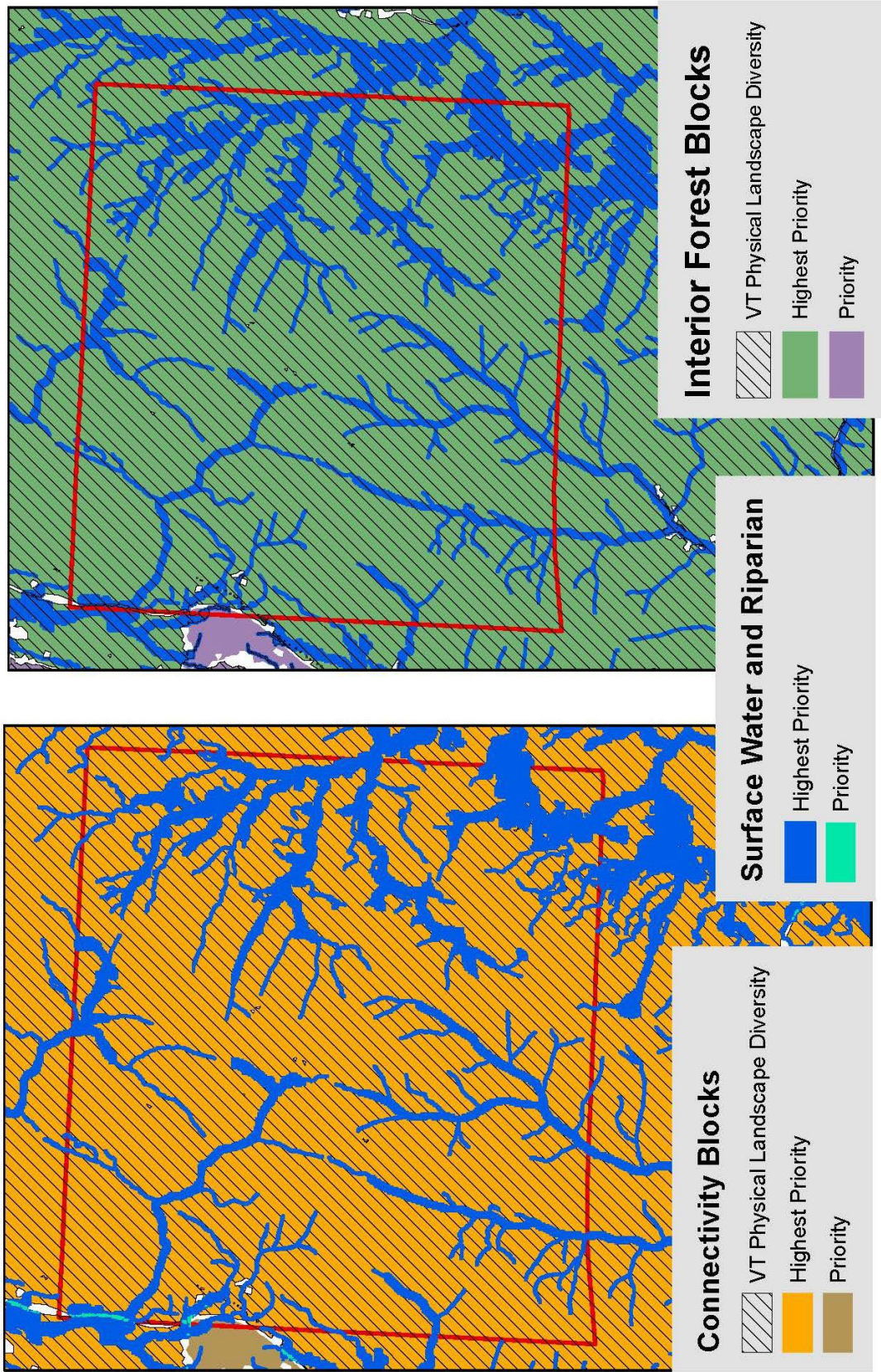
Map 8: Water Resources

Map 8. Water Resources

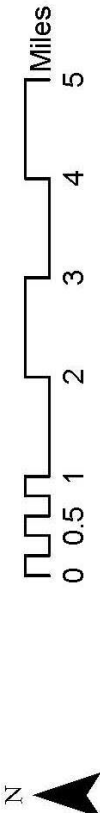


Map 9: Conservation Design Forest Blocks

Map 9. Glastenbury Conservation Design Elements



This map was prepared by the Bennington County Regional Commission in May of 2021. This map should be used for planning purposes only.



VI. HISTORIC RESOURCES

Human activity in the past has left historic structures and features, and historic and prehistoric archaeological sites. Because these artifacts of our past offer opportunities for learning and tangible reminders of our heritage, they are historic resources and entitled to parallel consideration with other resources in Glastenbury. This section of the plan will describe known historic resources and expected resource potential in Glastenbury, identify some threats to resource preservation, and outline the processes which will implement their preservation in Glastenbury. These processes will differ depending on whether the land is privately or federally owned.

Historic structures and features (those 50 years old) known to exist in Glastenbury are the Ira Mattison House, built before 1860, old stone walls and foundations, the fire tower on Glastenbury Mountain, two railroad beds, the remains of brick charcoal kilns and large sawdust piles remaining from the use of portable sawmills in the '30s and '40s. Glastenbury may also contain camps built before 1947, Long Trail/Appalachian Trail shelters or improvements over 50 years old, and at least one road dating to the 18th century. Only the Mattison House has been located exactly. It is listed as number 0204-1 in the Vermont Historic Sites and Structures Survey, but has not been included in the State Historic Register. This building, the home of Judge Norman Mattison, housed all of Glastenbury's municipal offices for a number of years. Sites currently listed under the State Historic Register are the Scott Camp and Sterba Camp.

Although all of the known archaeological sites are historic, some parts of Glastenbury may contain prehistoric archaeological sites. Certain areas around wetlands, for instance, are archaeologically sensitive. Borrowing ideas about prehistoric Native American behavior from research results in nearby Green Mountain towns enables archaeologists to narrow their field of inquiry. Prehistoric sites are likely to reflect similar use of the Green Mountains as a source of quartzite for making stone tools. During the 17th century, Native Americans trapped for commercial trade with European posts in the Hudson and Connecticut River Valleys. Glastenbury is likely to have been a source of furs for trade as well as part of the Native American subsistence base. There are undoubtedly small, repeatedly occupied prehistoric sites in Glastenbury, and thus additional reason to give proposed development projects close attention.

Historic archaeological sites include the Village of Fayville in the northwest part of town, part of the MacIntyre historic archaeological district on Glastenbury's north border with Sunderland, and an historic archaeological area at the forks of Bolles Brook in the south part of Glastenbury. In addition, several charcoal kiln sites have been reported as part of an ongoing survey of Vermont's early iron, charcoal, and limestone industries.

The application of certain preservation procedures will depend on whether the land is privately held or within the National Forest. A series of federal laws, beginning with the Antiquities Act of 1906, which protects sites and artifacts on federal land and authorizes national monuments, and continuing through the 1981 Amendments to the National Historic Preservation Act of 1966, prevent the use of federal funds for projects which will harm important archaeological sites or historic structures. This means that federal agencies, such as the U.S. Forest Service, have implemented cultural resource protection programs. The program is meant to ensure that the agency considers the effect of projects on historic resources, and provides the National Advisory Council for Historic Preservation an opportunity to comment on these effects. The Forest Service has prepared a cultural resource management plan for the Green Mountain National Forest, and

maintains an archaeological site inventory in the Forest Supervisor's Office in Rutland. This inventory includes sites located in the Town of Glastenbury on Forest Service land. In practice, most identified archaeological sites in the forest are avoided during land altering projects. Historic structures eligible for inclusion on the National Register are also protected.

In addition, these laws protect archaeological sites and National Register eligible buildings (even on private land) from destruction by projects requiring federal funds, permits, or federal licensing. Highway and bridge construction and repair, modifications to wetlands, and utility relicensing are all subject to these laws. In Vermont, such projects are reviewed for their impacts to historic resources at the State Historic Preservation Office in Montpelier, and decisions are based on the Office's inventories of known archaeological sites and historic structures (the State Archaeological Site Register and the State Historic Sites and Structures Register).

The Vermont Historic Preservation Act, administered by the same office, protects archaeological sites and historic buildings on state owned land. Vermont's Act 250 provides for a regional and state-level review of certain projects. An Act 250 review includes consideration of the impact of the project on historic resources, as well as natural resources. This review is also performed by the Vermont State Historic Preservation Office (the Division for Historic Preservation), and can result in requests for project alterations and archaeological surveys. The Town of Glastenbury can be an official party to any Act 250 hearings affecting its area.

Many small projects on private land, however, are not subject to any of these reviews. Even large or important sites, buildings, and districts can be lost piecemeal through the accumulated impact of several small projects. Even when a highway route is redesigned to avoid an historic site, that site could be lost a few years later through residential construction or some other un-reviewed activity. Vermont has enabling legislation for local historic district designation and a local review process. Glastenbury should consider assessing and protecting its historic archaeological areas with such local review.

Incorporating historic preservation criteria in conditional-use zoning reviews can help preserve areas of high prehistoric archaeological sensitivity, around wetlands for example. In archaeologically sensitive areas, as determined from experience in nearby towns, land surface altering changes should be held to 100 feet from the boundaries of such areas. The Town may also consider limiting recreational access to preserve archaeological sites in Glastenbury. Timber harvesting, road construction, and landscaping are certainly destructive to archaeological sites, but even hiking trails can expose and erode them.

In two cases, charcoal kiln sites with relatively well-defined boundaries are located on private land. The Town would support the acquisition of historic preservation easements from current landowners to improve the chances of the sites' continued preservation through succeeding ownership changes. These acquisitions could be pursued by local or state preservation organizations.

Finally, the Town should, as a certified local government, request funds for an architectural survey of all Glastenbury's remaining structures, including bridges and outbuildings as well as cabins and camps. The Vermont Division for Historic Preservation grants such funds. This survey could include Appalachian/Long Trail structures as well. Documenting and adding eligible structures to

the State Register is the first step in preserving them. A town resident is currently inventorying cellar holes; this documentation should be referenced in future historic surveys.

6.1 Policies For Historic Preservation

6A: Cooperate with the cultural resources management plan for the Green Mountain National Forest.

6B: Discourage any development, alterations or additions that encroach upon or threaten any historic feature, building, landscaping or site possessing architectural, archaeological or historic merit.

6C: Support the work of preservation organizations to identify, document, and acquire rights, easements, or ownership of historic resources as appropriate.

VII. LAND USE PLAN

The Glastenbury Zoning Bylaw designates two zoning districts: Forest District One and Forest District Two (see Map 12). There is neither provision nor an apparent need for commercial and industrial development except for mineral extraction and forestry as provided for in the zoning bylaws.

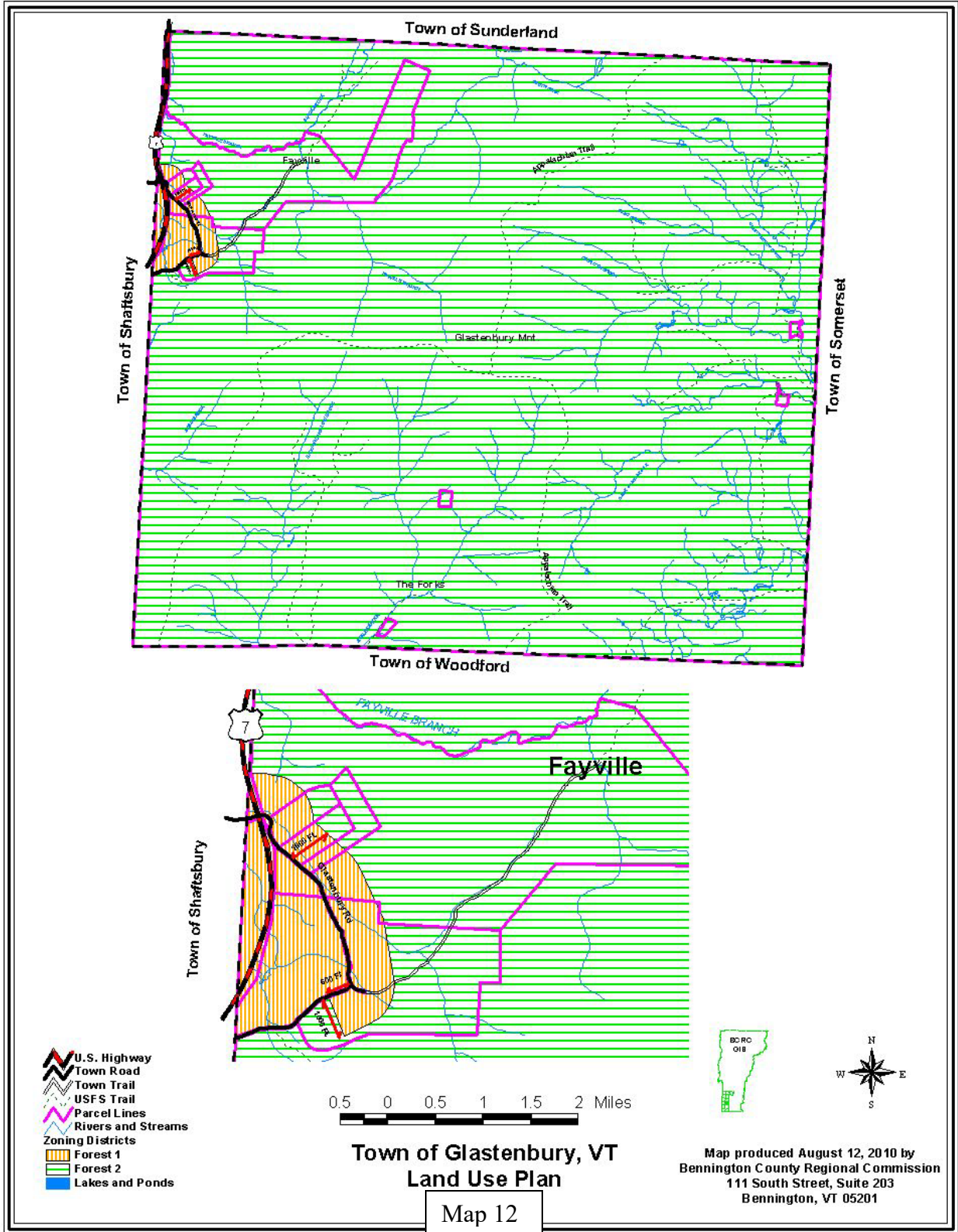
7.1 Forest District One

Forest District One is located in the northwest corner of Glastenbury. Glastenbury Road, the only town road, serves this area comprising the lowest elevations in town. Permanent single-family dwellings, on a minimum lot size of twenty-five acres, are allowed as a conditional use.

There are no municipal services in the Town of Glastenbury. Grading and snow plowing of Glastenbury Road is performed by the Vermont Agency of Transportation. Power lines, owned by Green Mountain Power, only extend 1500 feet east of Route 7. The homes on the corner of Glastenbury Road and the Fayville Road are served by power brought in from an East Road extension in Shaftsbury. Over one mile of Glastenbury road is without power.

Although the 25-acre minimum lot size does mandate an appropriate low density, such zoning leads to inefficient use of land and services. Clustering houses in an identified growth area would preserve open space, create a residential community which is more efficient and economical to service, and subsequently lower the cost of housing. Such an approach need not change the overall potential density. The twenty-five acre zoning would remain in effect, with each twenty-five acre parcel sending one house to the designated growth area. Here the houses could be clustered on much smaller lots. The twenty-five acre sending parcels would be protected from further development through conservation easements.

In proposing a cluster development, the developer would identify a growth zone based on the development suitability of the site. Preferably the growth area would be located near the existing road and power lines where it would be efficient to service. Prior to any residential development the developer must have long-range plans for providing the best services



possible covering public health and safety, education, fire protection, water supply, waste disposal, and similar facilities. The Glastenbury Development Review Board and Planning Commission, as well as the planning commissions of any affected towns, must approve such plans.

7.2 Forest District Two

Forest District Two, representing the vast majority of Glastenbury's land base, comprises remote and mountainous terrain. Much of this land is owned by the U.S.F.S. and is managed through the policies of the Green Mountain National Forest Land and Resource Management Plan. The current Green Mountain National Forest Plan must be updated no later than 2030, and the next Glastenbury Town Plan update may coincide with this timeline. This provides an opportunity for town priorities to be reflected in the updated forest management plan, and ensure consistency between the two documents.

The Forest Two District discourages land development. This is due to the presence of mountainous topography, watershed areas that require protection to maintain high quality water supplies for three adjacent communities, and the inefficiency of development roads, utilities, and public services. This district also protects large, unfragmented forest blocks and connecting blocks. The only dwellings allowed in the Forest Two District are seasonal camps not intended as permanent primary dwellings. The minimum lot size in the Forest Two District is twenty-five acres. There are four camps in the Forest Two District that are on private property. Each of the camps has a ten-acre lot size created before current zoning regulations, so they are grandfathered.

7.3 Land Use Policies

Forest District One

7A: Limit residential development to a low overall density (based on 25 acres per residence).

7B: Promote efficient use of services, preserve open space and prime forestry land, and protect other special resources and fragile environmental areas, including unfragmented forest blocks; encourage clusters of single-family detached units.

7C: Residential subdivision proposals employing a conventional design shall be accompanied by a cluster subdivision design prepared in accordance with Section 6 of the Zoning Bylaw (Cluster Subdivision). The Development Review Board may require the applicant to proceed with the cluster subdivision design based upon a determination that failure to employ a cluster design could potentially result in one or more of the following:

- Degradation of the natural visual appeal of a hillside or ridgeline;
- Encroachment upon an important natural or historic area, wildlife habitat, or stream, wetland, or other water body;
- Elimination of access to established recreational routes or areas;
- Cause excessive erosion, ground or surface water contamination, or otherwise endanger environmental quality, including agricultural and forest soils.

The Development Review Board may waive the cluster subdivision requirement if, in its judgment, it finds that such design is not practical based upon the natural lay of the land, sewage disposal or a unique aspect of the project.

7D: The rate and extent of growth of residential development shall not cause an undue burden to the municipal services and facilities in Glastenbury or surrounding towns as may be determined in the approval reviews of the Glastenbury Development Review Board and Planning Commission and the Planning Commissions of affected towns.

7E: Residential construction shall be prohibited on land with natural slopes of 15 percent or greater.

7F: Land with severe limitations for residential development (i.e. slopes in excess of 15 percent, soils incapable of supporting development, flood hazard areas, wetlands, etc.) should be kept in its natural state.

7G: Residential development shall be pursued with strict regard to the natural capability of the soil in the intended area. Any inadequacy in the soil for the intended use shall be corrected or compensated for, or relocation of the use area required.

7H: Sewerage disposal systems shall be properly designed, sited, and installed to prevent the contamination of wells and groundwater in compliance with state wastewater permitting requirements. Septic systems shall not be permitted on land with natural slopes greater than 15 percent.

7I: During construction, builders shall follow conservation practices recommended by the Natural Resource Conservation Service. Examples of conservation practices are:

- Using an incremental system for breaking ground.
- Application of temporary or permanent ground cover.
- Prohibiting disposal of fill in wetlands and natural drainage ways.
- Identifying and avoiding the disturbance of fragile environmental areas.

Forest District Two

7J: Permanent improvements such as roads to support utilities or other year-round use should be discouraged. This recognizes the need to protect natural resources and unfragmented forest blocks and to avoid the costs borne in providing services to these backlands.

7K United States Forest Service management of lands in this region is encouraged. Management plans, prepared by the U.S.F.S., are encouraged to recognize the need for preservation of the unfragmented forest blocks while allowing continued public access to these lands.

7L: Town leadership should be prepared to participate in the Green Mountain National Forest Plan public review process to ensure the town's priorities are reflected in the updated plan.

7M: Town land use policies shall apply to all town land, including forest service land.

VIII. RECREATION

The availability of undeveloped land is important to the wellbeing of the entire region as a resource for recreation. The Town of Glastenbury serves a large variety of passive and active recreational users. However, the Town has very limited resources to support infrastructure for public recreational use. Glastenbury's character is quiet and remote, and the limited number and type of visitors to the town is consistent with that character. For this reason, the Town endorses maintenance of existing access points, but does not support building out new infrastructure to increase use of the area.

8.1 Hiking/Backpacking

A significant number of recreational users in Glastenbury are backpackers making their way north or south along the Appalachian/Long Trail. Heading north from the Long Trail parking area on Route 9 in Woodford, the Appalachian/Long Trail enters Glastenbury about 1 1/2 miles east of Bolles Brook. Here the trail follows a 3,000-foot ridge to Goddard Shelter and the summit of Glastenbury Mountain. Just north of the summit is a fire tower built in 1927 by the Vermont Timberland Owners Association. This tower, renovated in 1976 by the U.S. Forest Service as an observation deck for hikers, offers one of the most spectacular views in southern Vermont. From the fire tower the trail follows a ridge northwest, ascending five peaks that are over 3,000 feet in elevation. The trail passes the Kid Gore Shelter approximately 3/4 of a mile before entering the Town of Sunderland. The West Ridge Trail runs from the Appalachian/Long Trail at Goddard Shelter over Bald Mountain and Harbour Road in Woodford. That trail provides an option for a two-day loop backpacking trip, returning to the Route 9 parking area.

The Green Mountain Club maintains the Appalachian/Long Trail, as well as the West Ridge Trail. This town plan encourages the Forest Service to work cooperatively with the Green Mountain Club to assure that the integrity of these national recreational resources is maintained. Motorized vehicles are prohibited on the Appalachian/Long Trail and on the West Ridge Trail.

8.2 Fayville Trail

Fayville Trail provides public access to the historic village of Fayville and the Green Mountain National Forest, both of which are points of interest of cultural, recreational, and historical significance for Glastenbury residents and nonresidents alike. Fayville Trail begins at the intersection of the north-south and east-west segments of Glastenbury Road. It is comprised of a 0.06-mile stretch of class-three road and a 1.5-mile stretch of a 3-rod wide legal trail under the jurisdiction of the Vermont Agency of Transportation. Forest Service Road 307, a public R.O.W., begins at the terminus of Fayville Trail on the north bank of Fayville Branch and continues through private property to the Green Mountain National Forest. While Fayville Trail is a public thoroughfare, it runs through, and is surrounded by, private lands. Respect for those private lands is a critical part of access to Fayville.

Fayville Trail has been designated by the State of Vermont Agency of Transportation as a Legal Trail. Any road improvements or barrier erected to limit vehicle access is limited to that approved by the Agency of Transportation, which has authority over Fayville Trail. Given its significance as a scenic, historic, cultural, and recreational resource, Fayville Trail should be maintained in adherence with Agency of Transportation Best Management Practices (BMPs) for a legal trail under their jurisdiction. Keeping Fayville Trail in compliance with these standards is consistent with the goals of avoiding undue adverse impacts on the aesthetics of Glastenbury, preserving the scenic qualities of the trail, and protecting natural resources, which goals are set forth in Sections V, VII, and VIII. Any changes to Fayville Trail should be made in such a manner as to minimize the impacts on surrounding landowners, recreational resources, natural resources and historic or unique sites. The Fayville Bridge, at the end of the legal trail that leads to historic Fayville, was installed by a former private property owner. This bridge is used to access private properties and National Forest lands. No maintenance of the legal trail or associated infrastructure is done by the Town, VTrans, or the US Forest Service.

Parking at the trailhead has been an increasing problem, especially in winter months, due to the lack of official parking areas. Currently people park on private property and on the very narrow Glastenbury Road. Highway District No. 1 has expressed concern for public safety due to the parking on Glastenbury Road. To avoid conflicts with private property owners and to promote public safety, the Town would support any landowners and user groups pursuing parking solutions independently of the Town.

8.3 Snowmobiles and All-Terrain Vehicles (ATVs)

Originally built for logging operations, the many dirt trails in town provide site access for camp owners and rural area access for a variety of recreational users. Several of these trails are officially designated snowmobile trails that are maintained by the Shaftsbury Snow Pilots and the Vermont Association of Snow Travelers (VAST). There are several different classifications for these snowmobile trails. The Town encourages the maintenance of trails for snowmobiles and the Town may support seasonal access limitations for vehicles to protect the trail.

The Town of Glastenbury does not permit ATV use on public roads or trails.

8.4 Hunting & Fishing

The cold, clean, and gravel-bottomed streams that drain Glastenbury provide spawning habitat for trout from both the Hudson and Connecticut River watersheds. Sportsmen have fished these streams for decades, and the forks of Bolles Brook was a well-known fishing resort prior to the turn of the century. Today many sportsmen venture up these streams and into the woods in pursuit of quality hunting and fishing in a wilderness setting.

8.5 Recreation Policies

8A: Encourage the U.S. Forest Service to maintain access to and from the existing road and trail system, including adequate and safe river crossings.

8B: Private property owners are encouraged to allow access for all recreationalists as long as there is strict compliance with all regulated activities.

8C: Work cooperatively with the U.S. Forest Service and private property owners to maintain existing roads and trails and reduce erosion and sedimentation into waterways.

8D: ATVs are not permitted on Town roads or trails.

8E: Continuously work with the U.S. Forest Service to ensure cooperation and coordination of all recreational planning efforts.

8F: Encourage the U.S. Forest Service to create and maintain scenic vistas along the existing trail system.

IX. TRANSPORTATION

Thousands of people travel through the Town of Glastenbury on Route 7 every day, yet few truly know the town. Glastenbury is accessible by only one town road, appropriately called Glastenbury Road, which begins in the neighboring Town of Shaftsbury (see Map 13). This is a 12 to 15-foot-wide, class 3, gravel road. The total length of Glastenbury Road, from where it enters Glastenbury just before the Route 7 underpass to where it loops back into Shaftsbury, is 1.6 miles. There is also a 1.5-mile legal trail that begins just off of Glastenbury Road above the Scott Property. The trail leads to the Fayville Bridge and former Fayville Village and is primarily used for recreation and forest management access.

Glastenbury Road serves three year-round dwellings and one seasonal dwelling in Glastenbury, as well as two year-round dwellings in Shaftsbury. The State of Vermont maintains this road, grading it several times a year and plowing snow when necessary. Glastenbury Road should be retained in its present unpaved state to preserve its scenic qualities. Adhering to a yearly schedule of roadside ditching and culvert upgrading should minimize maintenance costs. Any road improvements should be limited to those required for public safety and efficient, economical maintenance, rather than for increased driving speed.

The only other road in Glastenbury is U.S. Route 7, a limited access state highway. Route 7 traverses through the northwest corner of town for a total of 1.8 miles. This section of highway has been the scene of several moose/car accidents. Due to the increased presence of moose near U.S. Route 7 and the severity of a moose/car accident, the Vermont Agency of Transportation has erected two "Moose Crossing" signs in the area.

The Town values Glastenbury Road for its scenic and traffic calming qualities and does not support the construction of additional town roads in Glastenbury, which would interfere with these qualities. Development of new roads will be limited to private access roads with recorded maintenance covenants as part of the permit issued. New access roads will be located to minimize the impacts on existing residences, recreational resources, natural resources, and historic or unique sites. New access roads will be built to allow convenient, safe access by emergency and other service vehicles.

9.1 Transportation Policies

9A: Access roads for residential development should be located for minimum feasible distance to connect with existing roads.

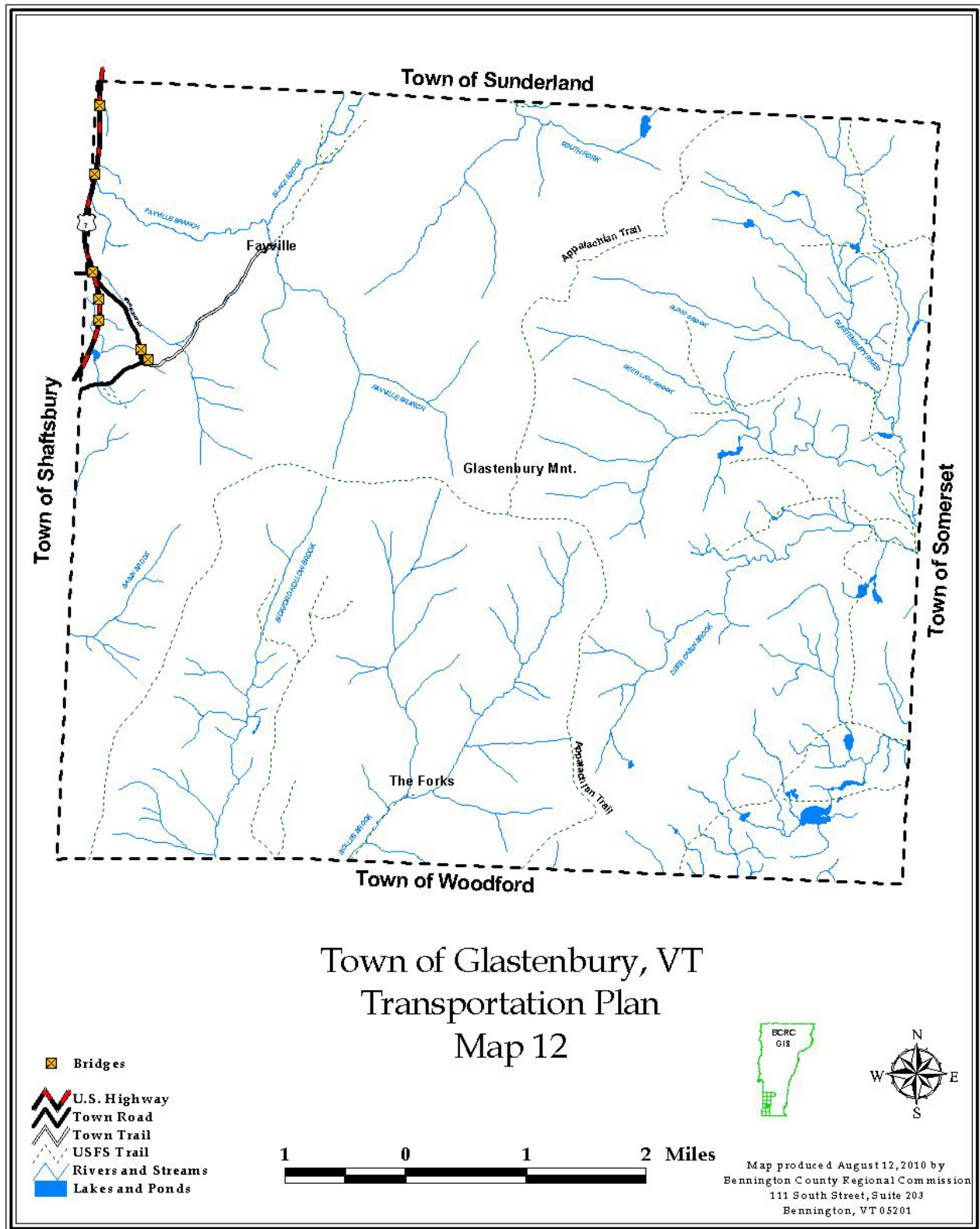
9B: Any private roads should be located to minimize impacts on existing residences, recreational resources, natural resources, and historic or unique sites and shall be recorded with maintenance covenants as part of the permit issued.

9C: Any private roads shall be built to allow safe, convenient access to emergency and other service vehicles.

9D: Measures shall be taken during the construction of bridges to:

- Maintain streams in a free-flowing condition,
- Retain, existing vegetation as much as possible,
- Prevent soil erosion, sedimentation, and other detrimental impacts on water quality.

9E: The town will maintain the present road system unpaved for its scenic and traffic calming qualities.



X. PUBLIC UTILITIES AND SERVICES

10.1 Education and Child Care

The first school district in Glastenbury was organized in Fayville in 1835. There were 16 students. A female schoolteacher received a salary of \$2.68 a month, and school was in session for 24 weeks.

Today, although no school exists, the parents of school-age children have several options for educating their children. Glastenbury children can be tuitioned into one of several public or private schools in Bennington County or beyond. Home schooling is another option allowed by the State of Vermont. Similarly, while there are no child care facilities in the town, such services exist in surrounding towns.

10.2 Water Supply and Wastewater Disposal

The present and future residents of Glastenbury are totally dependent upon groundwater for their domestic water needs. There is no public distribution system, therefore household water must be supplied through individual wells. Fortunately, the Town of Glastenbury has an abundance of clean groundwater to draw from.

Glastenbury also lacks any municipal facilities for treating and disposing of wastewater. Sewage disposal is the responsibility of the town residents since all systems are privately owned. The State Agency of Natural Resources (ANR) has universal authority for required standards and permitting of water supply and wastewater disposal. It is required of all residents, whether year-round or seasonal, to have properly functioning systems. This is to avoid surface or groundwater contamination from adversely affecting water supplies needed to ensure a high quality environment.

10.3 Solid Waste Disposal

The Universal Recycling Law or Act 148 was passed by the Vermont Legislature in 2012. The primary purpose of this law was to significantly reduce the amount of material going into landfills. Over the past decade 30 to 36% of materials have been diverted from landfills. At the same time, the average amount of material each Vermonter generates has increased. This means that many useful and recyclable materials still end up in those landfills, which are gradually becoming full. The Universal Recycling Law seeks to provide more choices and convenience for Vermont residents, businesses and institutions to make it easier for them to recycle. The law is being phased in over time to allow for the creation of the systems for managing materials.

As part of the planning process, the towns formed the Bennington County Solid Waste Alliance (BCSWA) through an interlocal contract, pursuant to 24 V.S.A. Chapter 24, to implement the plan. The towns of Arlington, Bennington, Dorset, Glastenbury, Manchester, Pownal, Rupert, Sandgate, Searsburg, Shaftsbury, Stamford, Sunderland and Woodford have worked together to develop a Solid Waste Implementation Plan or "SWIP" consistent with the Universal Recycling Law. The SWIP outlines a series of actions to reduce the amount of

waste disposed of in landfills by conserving resources and promoting recycling and reuse. The SWIP also establishes the following goals:

1. Reduce the generation of all solid waste, both disposed and diverted, by 10% between 2020 and 2025.
2. Decrease the amount of material disposed by 25% by 2025 from 2020 levels.
3. Achieve a diversion rate of 50% by 2025.
4. Increase food diverted to food rescue organizations by 10% by 2025.

Solid waste disposal occurs locally through transfer station sites where refuse is collected, sorted, and transported to landfills and recycling centers. Glastenbury residents can take their solid waste to the transfer station in Shaftsbury. Residents can dispose of hazardous waste at one of the biannual household hazardous waste events organized by the BCSWA. The dates for these events are posted at the Shaftsbury transfer station. The BCSWA is developing a permanent household hazardous waste facility at the Bennington transfer station.

Effective July 1, 2020, food scraps and other compostable materials were banned from Vermont landfills under Act 148. This ban was enacted to divert more material away from landfills and reduce food waste and greenhouse gas emissions. Vermont residents are required separate their food scraps from other disposable materials and either compost on their property, take their food scraps to a local food waste drop-off site (such as a transfer station), or contract with a curbside food scrap hauler.

10.4 Fire, Emergency and Public Safety

Fire protection and suppression in Glastenbury falls into two categories: Wildland Fire and Structure Fire.

Wildland Fire in Glastenbury proper (private lands) falls under the jurisdiction of the Appointed Vermont State Forest Fire Warden. Their duties are to issue Vermont State permits to kindle fire, address complaints, and institute an Incident Command System (ICS) command structure for the suppression of Wildland Fire on private lands within the town. Open burning permits are issued in accordance with Vermont Title 10 sub chapter 4-2645 and are at the discretion of the Fire Warden. A permit is not required for a person to have a campfire (fire for cooking or warming) on their own lands. Fires must be attended at all times. Wildland Fire control and suppression in Glastenbury within the Green Mountain National Forest (GMNF) resides with the United States Forest Service (USFS) and is coordinated through the Manchester Vermont USFS Ranger station. USFS encourages campfires within the GMNF to be located at designated sites or areas.

Structure Fire protection and suppression covers private lands within Glastenbury. Because Glastenbury doesn't have its own Fire Department protection and suppression services, this protection is secured through a Memorandum of Understanding (MOU) which is updated annually. The current MOU for fire suppression and protection is with the Shaftsbury Fire Department. Mutual aid as required is coordinated through the Shaftsbury Fire Chief or ICS command structure.

Emergency Health Services are provided to Glastenbury through an MOU with Arlington Rescue Squad that is updated annually. Emergency services are also provided by neighboring communities based on the location of the emergency and the E911 dispatch map.

Public Safety / Fish and Game services are provided to the town of Glastenbury through the Vermont State Police and Vermont Fish and Game Warden Service. Glastenbury also falls within the service area of the Bennington County Sheriff's Department and Bennington County Courts.

10.5 Power Transmission Lines

Green Mountain Power owns approximately 1500 feet of power transmission lines that extend from the Route 7 underpass on Glastenbury Road to the second residence. Another power transmission line owned by GMP extends from the Shaftsbury town line near the end of Glastenbury Road to the corner of the Fayville Road Trail. The approximately one mile of Glastenbury Road between these points is not served by power. There is limited power transmission infrastructure in the town which limits the capacity for development in Glastenbury.

10.6 Telecommunications

Telecommunication facilities and related infrastructure require careful consideration. These structures tend to be located in highly visible locations on mountaintops and ridgelines. The federal Telecommunications Act of 1996 placed certain limitations over municipal control of these structures; however, within those confines, Glastenbury must act to protect its historic character, rural nature and aesthetic beauty. Among other issues that may arise, the town is concerned about aesthetics, ridgeline protection, environmental protection, and co-location of facilities. The Section 248 utility approval process of the Public Utility Commission allows for municipalities to participate and share their concerns about how facilities are sited.

When planning new infrastructure or upgrades to existing facilities, special consideration shall be given to any primary or secondary impacts that would reduce resource values, including but not limited to aesthetics, natural areas, wildlife habitat, and historic sites. In addition, when a new facility is planned, there must be clear evidence that the proposed location is necessary based on economic considerations, potential impacts on resource values, and the resulting public benefits. In all cases, appropriate and suitable techniques shall be used to minimize or prevent any adverse impact from the placement of towers and related infrastructure.

10.7 Voting

Residents of an unorganized town have no municipal elections but are eligible to vote in state and national elections and do so in this town by an agreement with the Shaftsbury Board of Civil Authority. Glastenbury and Shaftsbury form Vermont House District Bennington 3. Glastenbury is also represented by state senators elected in Bennington County.

10.8 Public Utilities and Services Policies

- 10A: Public utilities and facilities should be situated to minimize any adverse physical, biological, and visual impacts on the landscape.
- 10B: Fire ponds or underground water storage tanks should be constructed to the specifications required by local fire districts and incorporated into any residential development plans.
- 10C: Proposals for any new development shall have long-range plans for optimal services covering public health and safety, education, fire protection, water supply, waste disposal, and similar facilities, including cooperation with adjacent towns and the whole region.
- 10D: The rate of growth of development in the town should not cause a burden to services and facilities or an excessive increase in the tax rate.

XI. ECONOMIC DEVELOPMENT

Given the lack of an adequate road system and other municipal facilities and services, economic development in Glastenbury necessarily focuses on the utilization of its natural resources. The forestry industry has historically been Glastenbury's main economic activity. Today the vast acreages of undeveloped forested land, held in both private and public ownership, have the potential, with continued good management, to produce value-added wood products for decades to come.

The public and private lands in Glastenbury represent the largest contiguous tract of timberlands in Bennington County. Much of this land is currently managed for timber growth. An extensive network of logging roads, an expensive necessity for any logging operation, already exists on both the private and public lands. This road network should be viewed as an investment to be utilized for future use and maintained on this basis. In addition to providing local employment and value-added products, the timber industry, if appropriately managed, may enhance wildlife habitat and a variety of recreational opportunities.

11.1 Economic Development Policies

- 11A: Encourage the maintenance of prime forest soils to provide continued opportunities for commercial forestry.
- 11B: Encourage proper forest management practices under the guidance of the County Forester, the U.S. Forest Service, and/or other qualified persons.
- 11C: New logging roads and log landings shall be located to minimize impacts on existing residences, recreational resources, natural resources, streams, wetlands, and historic or unique sites.
- 11D: Encourage continuous management and supervision of large timber harvests and logging operations to ensure adequate environmental protection.

XII - ENERGY

12.1 Overview

Energy is a basic need of our society, but with most of it derived from scarce resources, effective planning for energy use and conservation is extremely important. Our transportation system relies on energy to propel the cars, trucks, and other vehicles that transport people and goods to, from, and throughout the community. Homes and businesses require energy to power appliances and machinery and to provide heat in the winter and cooling in the summer. With its limited population and development, Glastenbury's energy consumption is quite low, but measures should be taken to be as efficient as possible and to recognize the value of local available renewable energy resources.

12.2 Act 174 and Enhanced Municipal Energy Planning

In 2016, the Vermont legislature approved Act 174 to enhance regional- and town-level energy planning and to create a way for municipalities to have input on the siting of electric generation facilities through land use planning. The Act established standards, which if met by a regional or municipal plan give their contents 'substantial deference' in proceedings of the Public Utility Commission regarding the siting of electric generation facilities. The standards require that plans include three broad components:

1. Analysis of current energy use and targets for future energy consumption;
2. Pathways, or implementation actions, to achieve future energy consumption targets; and
3. A mapping component with renewable energy resource maps and siting guidelines for renewable electric generation facilities.

Requirements for regional and local plans are based on statewide policies and goals outlined in the Vermont Comprehensive Energy Plan (CEP), updated in 2016. Two central goals of the CEP are reduction of total energy consumption in the state by one third by the year 2050, and the sourcing of 90% of remaining energy from renewable sources. Though the scope of these goals may seem ambitious, the inevitable and disruptive future price fluctuation in hydro- carbon-based fuels combined with the need to reduce energy costs of all Vermonters are powerful motivators to pursue these goals.

The Town Plan, including this energy element plus sections addressing land use, transportation, and housing are intended to meet the Act 174 standards for a municipal plan. The BCRC's comprehensive regional energy plan was issued a determination of compliance with state energy policy by the Public Service Department. Consequently, the BCRC is responsible for determining whether municipal plans meet those standards. The data, maps, and strategies included in this energy element are derived from the regional energy plan and have been refined to be relevant to the unique conditions present in Glastenbury.

12.3 Current and Future Energy Use

To generate estimates of energy use across various sectors (transportation, heating, and electric) today and into the future, the BCRC collaborated with the Department of Public Service and the Vermont Energy Investment Corporation (VEIC). A computer modeling system called the Long-Range Energy Alternatives Planning (LEAP) model was used to explore various scenarios for achieving 90% renewables by 2050 ("90 x 2050). For the Bennington County

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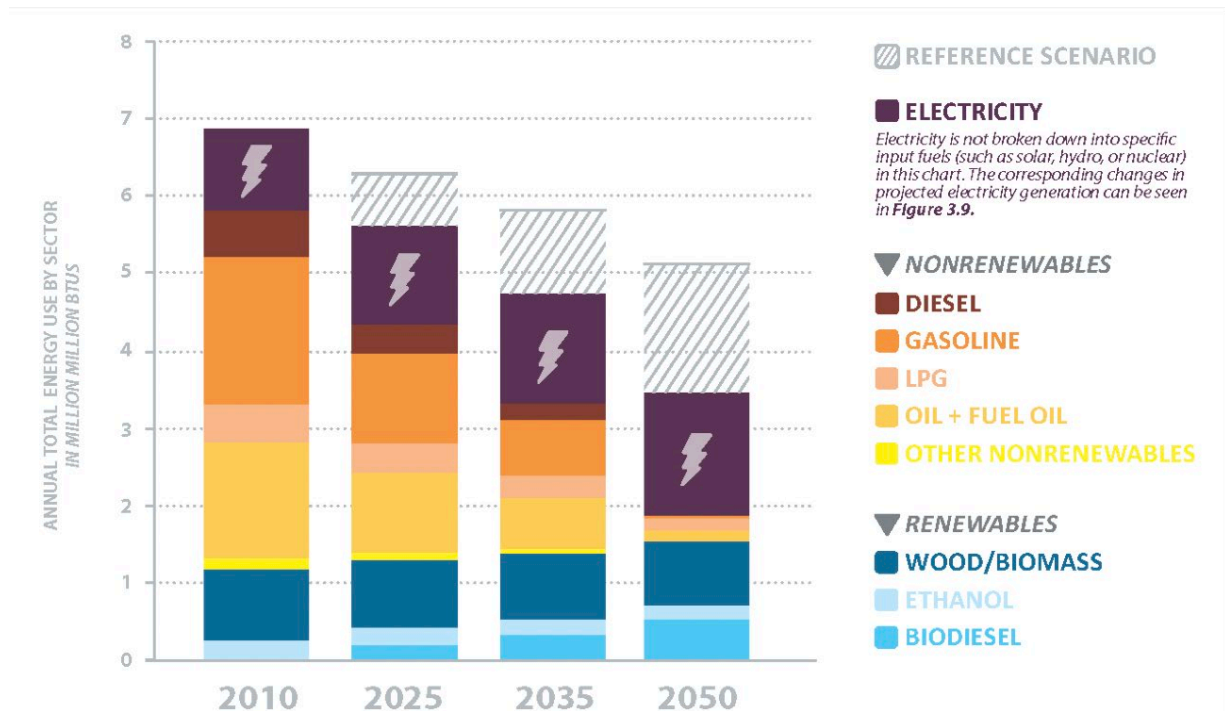


Figure 12-1. Bennington Region, Energy Use By Fuel Type, 2010-2050: LEAP model projections suggest that the Bennington region will have to decrease energy usage to about half of current levels by 2050 in order to achieve the 90X50 goal—an even greater rate of reduction than Vermont at large. Building weatherization, alternative heating systems and fuels, and improved efficiency in the transportation section, largely through greater reliance on electric vehicles, will drive those changes.

Estimated current energy consumption levels by fuel type for the Town of Glastenbury and projections for years 2025, 2035, and 2050—based on Vermont’s 90 x 2050 goal—are displayed in Table 12-1.

<i>Fuels</i>	2019	2025	2035	2050
<i>Electricity (kWH)</i>	61,782	74,385	82,356	92,732
<i>Gasoline (gallons)</i>	3,168	1,933	1,183	47
<i>Diesel (gallons)</i>	868	534	324	10

<i>Ethanol (gallons)</i>	611	522	479	413
<i>Oil (gallons)</i>	2,130	1,461	935	196
<i>LPG (gallons)</i>	1,145	897	677	380
<i>Wood (tons)</i>	1	1	1	1
<i>Biodiesel (gallons)</i>	9	320	528	848

An increase in reliance on efficient renewably generated electricity and on solid and liquid biofuels can replace the vast majority of fossil fuel use in the town by the year 2050.

A particularly significant fuel transformation will occur in the transportation sector, where gasoline and diesel use will decline to less than 1.5% of current levels, replaced over time by EVs and liquid biofuels. Similarly, the use of fossil fuels for home heating will decrease as heating systems are replaced with high efficiency cold climate heat pumps and systems that use wood, wood pellets, and other biofuels. Wood heating may become even more predominant in the town and region because of the abundance of this locally available resource, particularly in Glastenbury.

12.4 Residential Energy Use

Area households consume energy for space and water heating (“thermal” applications), for electric lighting, appliances, and equipment, and for transportation. Home heating has traditionally relied on oil, propane, and/or wood (cordwood or pellets). The transition to reduced energy use in this sector will rely on efficiency improvements to homes, heating systems, and appliances, and significant changes in the fuel mix will be required to meet 2050 energy goals.

Forecasts for energy demand in the residential thermal sector all include significant efficiency gains, resulting in an overall decline in total energy consumption. Therefore, weatherization of existing homes will need to be a priority in Glastenbury, and any new home construction will have to meet or exceed Vermont’s Residential Building Energy Standards.

The LEAP forecasts for residential energy use also are premised on an assumption that liquid biofuels will become genuinely renewable (i.e., their net energy yield will improve dramatically over time as technology advances) and will replace petroleum as a primary heating fuel. If that assumption is not borne out by real developments over time, it is likely that more homes will have to switch to electric heat pumps or wood for their primary source of heat.

Electricity demand projections in the residential sector are complicated by the widespread integration of heat pumps (an electricity-driven technology for space and water heating that is much more efficient than older electric resistance heating systems) and electric vehicles (with considerable charging of batteries expected to occur at home-based EV charging ports). Average annual electricity consumption for a household in the region (data is not available for Glastenbury because of the limited number of households) is approximately 7,500 kWh (just over 600 kWh per month), an amount that has been affected over the past several years by energy efficiency initiatives such as the lighting and appliance incentive programs offered through Efficiency Vermont.

Those efficiency improvements will need to be continued into the future, since electricity demand in the Glastenbury’s residential thermal sector is expected to nearly triple by 2050 due to adoption of residential heat pump systems while electricity usage for residential vehicles is projected to grow

from its current negligible amount to over 10,000 kWh. It is important to remember that even though electricity consumption will increase dramatically, total energy consumption (all sources) will decline even more dramatically due to a variety of conservation and efficiency measures, including the far greater efficiency of electricity-driven heat pumps and vehicle motors.

12.5 Energy Use in the Transportation Sector

With transportation using more energy than any other sector, and the vast majority of that energy in form of nonrenewable petroleum fuels, it is clear that major changes must occur in the ways that people and goods are moved around the town and region. Reliance on personal light duty vehicles (“LDVs”- generally cars, pickup trucks, and SUVs) is widespread across the country and especially so in rural areas like southwestern Vermont. The independence and convenience provided by these vehicles has come to be considered essential by most people so a variety of changes in technology, alternative transportation modes, and even land use patterns will need to take place over time to maintain quality of life and economic vitality for residents. Because of its distance from town and village centers, Glastenbury residents will continue to rely on personal vehicles for 50,000+ miles annually (estimated total for all Glastenbury households) to access jobs, schools, and businesses in town and village centers.

An increasing variety of electric vehicles options are being offered, with extended ranges and price reductions making them an attractive option for residents of rural towns like Glastenbury.



Fortunately, electric vehicle (EV) technologies have advanced significantly in recent years and these systems are expected to replace internal combustion engines at an increasing rate in coming decades. By converting to EVs when acquiring new vehicles, Glastenbury residents can improve transportation efficiency and keep money in the local economy to support renewable electricity generation and area businesses. According to the LEAP analysis, Glastenbury can reduce the amount of energy used for transportation to one-third of current levels by 2050 while maintaining the number of miles driven by residents at a constant level. Efficiency gains through electrification of vehicles will account for much of this energy saving. By 2035, EVs are expected to account for the about half of all miles driven annually by Glastenbury residents, and by 2050 all residential vehicles in Glastenbury are projected to be EVs.

There are three main kinds of EVs: full electric vehicles, plug-in hybrid (petroleum and electric) vehicles that can be plugged in to charge, and hybrid vehicles (batteries provide an assist to the internal combustion energy and are charged while driving). Full EVs have larger batteries and do not rely at all on petroleum diesel; with increasing efficiency and driving range, it is expected that most vehicles will be full-electric by 2050. Electric vehicles of any type have a fuel efficiency significantly greater than that of internal combustion engine vehicles, leading to the significant efficiency gains projected over time.

Although EVs certainly will play a major role in reducing energy use while allowing Glastenbury residents to continue to rely on personal vehicle travel, efficiency gains from EVs alone will not account for all the energy reduction needed to meet future transportation energy targets. Improved access to regional and intercity bus routes and links to passenger rail services will be of particular importance to Glastenbury. A greater number and variety of commercial services in nearby village centers such as Shaftsbury also can support energy conservation goals by reducing the distance that residents must drive on a daily basis.

12.6 Commercial Energy Use

Glastenbury has a relatively small commercial sector, primarily focused on natural resource based activities—including businesses, such as logging, that can directly support energy goals through production of wood for heating applications throughout the region. Opportunities for commercial production of electricity from solar and wind resources also exist in Glastenbury, as discussed in the next section.

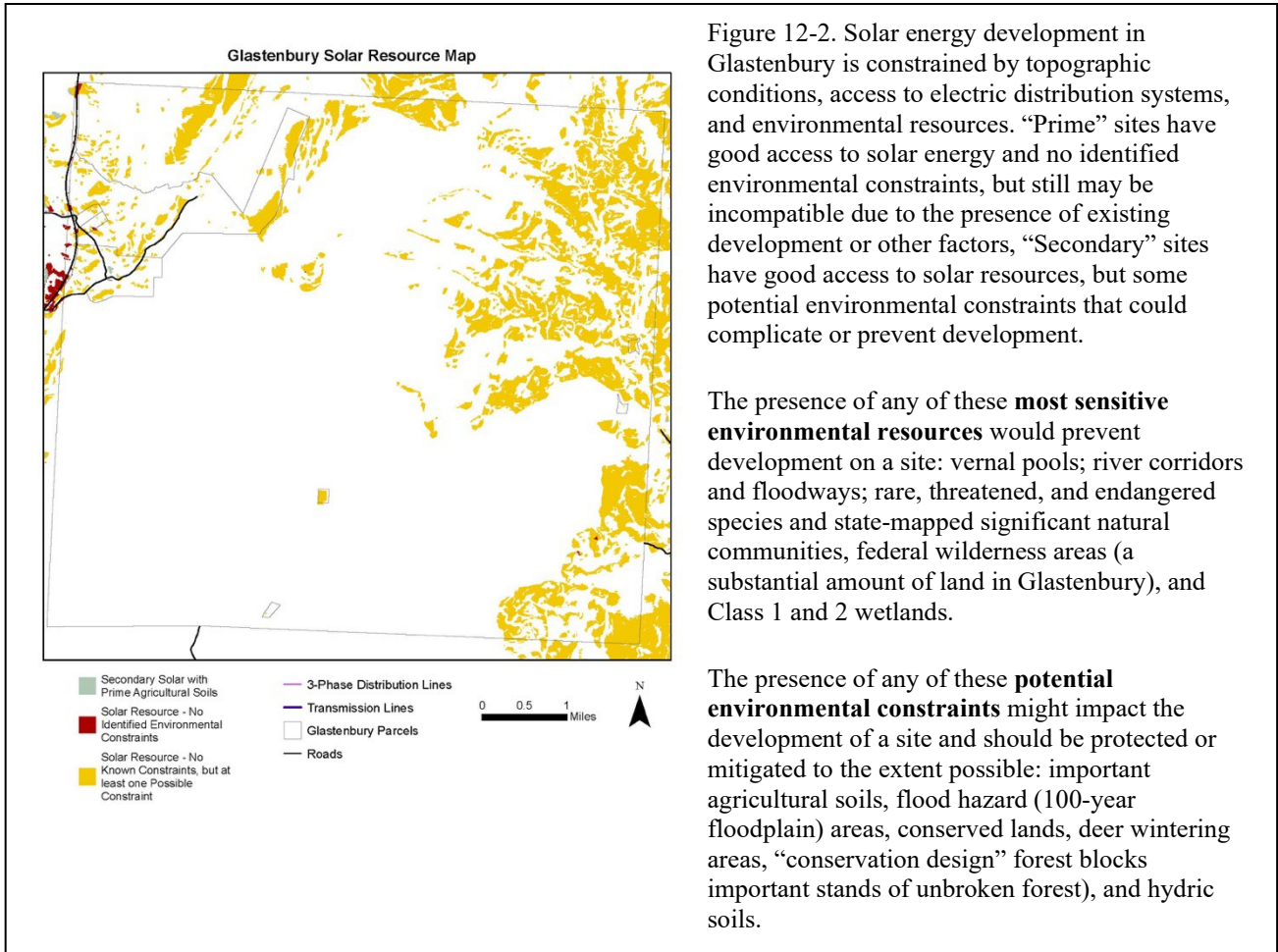
12.7 Local Renewable Energy Resources

The vast majority of energy used in Glastenbury and the Bennington County region is imported from outside the state in the form of gasoline, oil, propane, and electricity. Some of the imported electricity is generated from renewable sources, primarily electricity obtained from hydroelectric generating facilities in Quebec and Labrador (via utility contracts with Hydro Quebec). Even imported renewable energy has environmental impacts, however, including damage to rivers and forests from hydroelectric projects in Canada. The impacts of local energy sources can be regulated more directly and the energy is more secure over the long-term.

There currently is no electricity generation occurring in Glastenbury. The town should plan for some level of solar energy development to support local, regional and statewide targets for in-state renewable generation. Topographic, infrastructure, and environmental constraints reveal, however, that the amount of potential solar development is quite limited (Figure 12-2). Residents should consider rooftop or backyard installations and the town also may identify one or more “preferred sites” for solar energy development, based on resource availability, local support, and landowner interest.

Wind energy also will be an important component of the region’s future energy supply. The Bennington County Regional Energy Plan estimates that approximately 26 MW of new capacity from wind energy should be obtained from the region by 2050. While some of that supply can be realized through residential and small-scale commercial turbine generators (2.5 KW to 100 KW capacity), the only way to meet that target is to take advantage of higher and more consistent wind speeds along some of the area’s ridgelines. Examples of such development are readily apparent in developments in nearby Searsburg, and in Monroe, Massachusetts.

Wind energy is a relatively efficient way to produce electricity from a renewable source, but it does have environmental impacts. Glastenbury should consider all of the same environmental constraints identified for solar development and also recognize that large-scale wind projects need to be separated from residential development (a 1 kilometer buffer is illustrated in Figure 12-3).



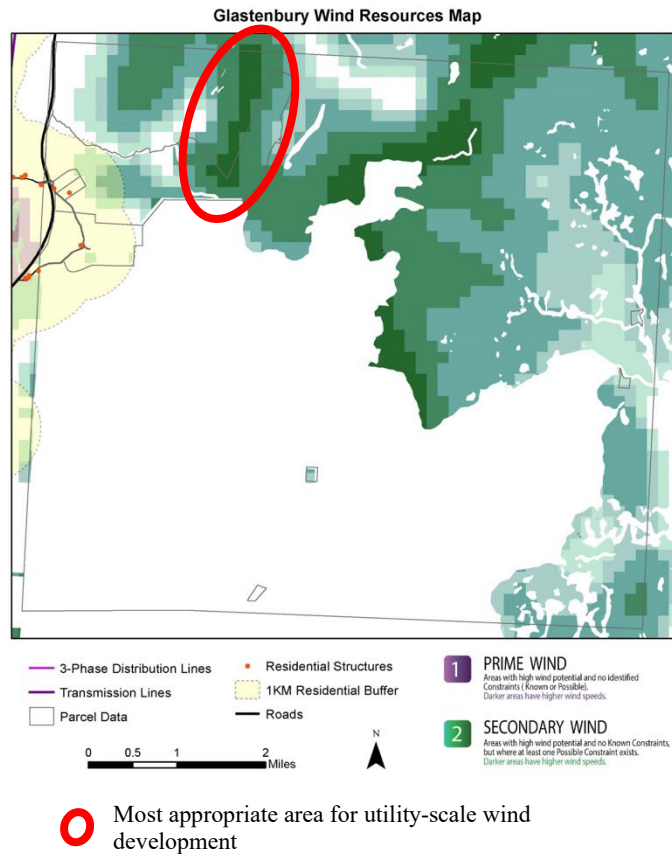
Because of their location on high elevation ridgelines, large-scale wind energy development may be highly visible, and consideration should be given to visual impacts from locations outside of Glastenbury and from key sites on the Long Trail. If any project is proposed in Glastenbury, the Town should participate actively in the Section 248 siting process before the Public Utility Commission, and work cooperatively with the BCRC and the Vermont Public Service Department to ensure that impacts are minimized and that the town is fairly compensated for hosting the facility.

Figure 12-3 The Wind Energy Resource Map for Glastenbury illustrates that there is significant potential for wind energy development in the town due to topographic conditions and the fact that development is located relatively distant from potential wind energy facilities. Constraints to development are primarily associated with National Forest Wilderness areas, and potential impacts to sections of remote forest land in these mountainous areas.

Special care must be taken to limit and mitigate environmental damage in these fragile upland areas.

Wind energy development in Glastenbury is permitted on a scale that directly offsets energy use in the town. Wind energy development in excess of this level must minimize environmental and aesthetic impacts and benefit Glastenbury residents.

The town and the Bennington County Regional Commission actively participate in any Section 248 reviews to ensure that environmental impacts are mitigated and off-site visual concerns are addressed in a comprehensive way.



Significant amounts of electricity generation also can be obtained from smaller scale turbines often deployed at farms and other businesses. These turbines, generally with a capacity of no more than 100 KW, often can prove economically viable at lower elevations and, therefore, in less prominent locations.

Glastenbury has limited potential for commercial-scale hydroelectric generation because of the nature of its streams and the fact that state and federal environmental regulations essentially prohibit new dam construction. Any hydroelectric generation, therefore, is likely to be from a “microhydro” generator that would primarily provide electricity for use on site.

For current renewable electricity generation sites and capacities in Glastenbury, refer to the Community Energy Dashboard:

<https://www.vtenergydashboard.org/my-community/glastenbury/statistics>.

Forests cover nearly the entire town and, therefore, Glastenbury is home to vast biomass energy resources that are potentially available to be used in small- and large-scale space heating operations. Low-grade wood, in particular, can be harvested to provide cordwood, wood pellets, and wood chips—resources that can be used in buildings ranging in size from small homes and apartment to large commercial and institutional complexes. In fact, the percentage of the region’s total energy derived from woody biomass is projected to double by 2050, at which time wood-

based heating systems are expected to account for approximately 40 percent of all residential space heating.

The energy yields from biomass resources used for space heating are maximized when the fuels are sourced close to their end use, so the potential contribution of Glastenbury's forest resources to the region's renewable energy goals is considerable. Woody biomass-based electricity generation is far less efficient than use of those resources for space heating, so it will be important to ensure that harvesting reserves an adequate amount to support expansion of space heating applications in the region.

There are limitations to utilization of Glastenbury's forest resources for energy development, however, because much of the town lies within a designated federal wilderness where the amount of tree cutting is severely limited. Steep topography, critical water resources, including wetlands and headwater streams, as well as other natural resources also may constrain economic forest resource extraction operations. Nonetheless, opportunities to wisely manage the forest resources for energy development should be pursued by the Green Mountain National Forest and by private forest landowners.

12.8 Conservation, Efficiency, and Renewable Energy Strategies and Policies

12.8.1 Land Use Planning and Regulation

The development pattern of the Town as a whole, and of individual development projects, can contribute to energy conservation.

12A: The municipal land use plan should continue to encourage development that is concentrated near existing roads, reducing the need for lengthy travel between destinations and allowing for an energy- and cost-efficient means of providing infrastructure.

12B: The town should encourage compact planned unit developments, building orientation to take advantage of solar gain for heating and natural lighting, proper use of vegetation, and energy-saving insulation and appliances to enhance conservation efforts.

12C: The town should make all applicants for zoning permits aware of the state's energy efficiency codes, which require that new buildings meet Building Energy Standards.

12.8.2 Residential Sector Energy Efficiency Improvements

Owners of residential properties should take advantage of opportunities for energy efficiency improvements and use of renewable energy resources.

12D: Homeowners should consider having an energy audit completed to identify potential weatherization improvements together with the cost and expected energy (and dollar) savings of each.

12E: The town should ensure that information about audit/weatherization services such as those provided by NeighborWorks of Western Vermont, the Bennington Rutland Opportunity Council (BROC), and private contractors is readily available to residents.

12F: Rebate and incentive programs available through Efficiency Vermont can help homeowners who would like to invest in lighting and appliances, solar electric or small-scale wind generators, and/or water and space heating systems using solar energy, heat pumps, or wood (furnaces, boilers, or stoves).

12.8.3 Transportation Sector Energy Efficiency

Electric vehicles can significantly reduce transportation energy demand relative to vehicles powered by internal combustion engines. Glastenbury residents should be able to take advantage of bus and rail transportation to travel outside the region.

12G: Residents should be made aware of financial incentives available for electric vehicle (EV) purchases.

12H: Residents should be able to access regional and intercity bus routes at convenient locations in nearby communities and the town should support continued improvements to connections to intercity passenger rail service.

12.8.4 Electricity Supply and Generation

Much of the area's energy is used in the form of electricity, and that demand is projected to grow significantly over time, so it is critical to assure an adequate supply from both generating sources and the capacity of transmission and distribution systems.

12I: The town should support economically and environmentally sound development of local electricity generating capacity, improvements to the "Southern Loop" transmission system, and development of smart grid technology.

12J: Local electricity generation in Glastenbury should be consistent with local and regional needs, as identified in the Bennington County Regional Plan, and should not adversely affect the remote and natural character of the community.

12K: Encourage solar photovoltaic generating systems, especially on rooftops and other developed surfaces. Larger scale projects must be carefully sited to assure that important environmental resources, including those identified on the solar resource map (Figure 12-2) are protected, and that important locally identified resources and scenic vistas are preserved.

12L: Wind energy development in Glastenbury is permitted on a scale that directly offsets energy use in the town. Wind energy development in excess of this level must minimize environmental and aesthetic impacts and benefit Glastenbury residents to be permitted.

12M: Small-scale wind energy generators (no more than 100 KW capacity) are appropriate at most locations in Glastenbury, provided that noise levels meet state requirements and

any tower is located further from the property line than the overall height of the tower plus blades.

12N: Larger-scale wind energy development (turbines exceeding 100 KW capacity) must be located at least 1 kilometer from any year-round residential building and adhere to all state environmental requirements. The town should work with the Bennington County Regional Commission, the Green Mountain National Forest, and other interest groups to ensure that wind energy development minimizes adverse impacts to sensitive natural communities or critical viewsheds and benefits the residents of Glastenbury.

XIII: HAZARD MITIGATION PLANNING

Hazard mitigation planning is intended to reduce potential losses from future disasters. Hazard mitigation plans identify potential natural hazards that could affect a community and the projects and actions that a jurisdiction can undertake to reduce risks and damage from natural hazards such as flooding, landslides, wildland fire, and similar events. The Federal Emergency Management Agency (FEMA), within the U.S. Department of Homeland Security and the Department of Vermont Emergency Management (VEM) both advocate the implementation of hazard mitigation measures to save lives and property and reduce the financial and human costs of disasters.

A Glastenbury Hazard Mitigation Planning Committee consisting of The Glastenbury Town Supervisor, The Glastenbury Planning Commission and Bennington County Regional Commission staff was formed in August 2015 to initiate The Hazard Mitigation Plan (HMP). This plan, which was adopted in December 2018 and is available on the BCRC website, is intended to identify, describe, and prioritize potential natural hazards that could affect the Town of Glastenbury and measures to reduce or avoid those impacts.

As an unincorporated town, Glastenbury cannot have an EMD and is exempt from having to submit a Local Emergency Management Plan (LEMP). It is possible to appoint a non-voting Glastenbury representative to the Regional Emergency Management Committee (REMC).

The Hazard Mitigation Plan uses local knowledge, existing plans and studies, reports and technical information to analyze the following natural hazards:

- Floods and Flash Floods
- Winter Storms
- High Wind Events
- Hail
- Temperature Extremes
- Drought
- Wildfire
- Landslides and Debris Flow
- Earthquake
- Hazardous Materials Spill
- Infectious Disease Outbreak
- Invasive Species

The plan also reviews current mitigation programs and capabilities, describes a comprehensive set of actions to mitigate the identified hazards and describes how the plan will be maintained and updated. Data references and sources of information including sources for the maps are also provided.

13.1 Hazard Mitigation Goals

The Glastenbury Hazard Mitigation Planning Committee identified the following mitigation goals:

1. Significantly reduce injury and loss of life resulting from natural disasters.
2. Significantly reduce damage to public infrastructure, minimize disruption to the road network and maintain both normal and emergency access.
3. Establish and manage a program to proactively implement mitigation projects for roads, bridges, culverts and other municipal facilities to ensure that community infrastructure is not significantly damaged by natural hazard events.
4. Design and implement mitigation measures so as to minimize impacts to rivers, water bodies and other natural features, historic structures, and neighborhood character.
5. Significantly reduce the economic impacts incurred by municipal, residential, industrial, agricultural and commercial establishments due to disasters.
6. Encourage hazard mitigation planning to be incorporated into other community planning projects, such as Town Plan, Capital Improvement Plan, and Town Basic Emergency Operation Plan
7. Ensure that members of the general public continue to be part of the hazard mitigation planning process.

Based on the above goals and the assessment of hazards, the Glastenbury Hazard Mitigation Plan Committee identifies and prioritizes specific hazard mitigation actions. These actions are to be addressed through local plans and regulations, education and awareness, natural system protection, and structural and infrastructure projects. The Hazard Mitigation Plan covers a 5-year period and should be updated in 2023.

XIV. IMPLEMENTATION

The goals set forth in the beginning of the plan are basic, modest and attainable. The policies adopted in the plan are guidelines for consistent and rational action to control land use and accommodate change. Unlike town plans in other states, the Vermont Town Plan has legal foundation for decision-making through the Act 250 process. Consequently, the goals and policies formulated in this document will not only guide growth in an advisory manner, but can be implemented to manage that growth.

14.1 Zoning

The Town maintains a Zoning Bylaw that implements the Town Plan. The use of districts in the Bylaw directs various land uses within certain predetermined areas. The Town Plan protects districts from adverse and conflicting uses, protects capital investments of private

residences and the public sector, and natural resources. It also provides a process whereby development can be evaluated in terms of community vision.

14.2 Mapping Process

The maps presented herein are a part of this Plan and will be used to guide decision-making. Through the services of the Bennington County Regional Commission, portions of these maps can be configured and combined to facilitate consideration of specific areas.

14.3 Implementation Action Table

Plan Section	Task	Who	Time Frame	Funding	Priority
	Update Town Plan	DRB, Town Supervisor, BCRC	Begin June 2028	Municipal Planning Grant	High
IV. Flood Resiliency	-Identify needed bridge and culvert repairs and replacements to address condition, geomorphic compatibility and ability to provide functional passage for aquatic organisms. Bridges and culverts that impede flow during flooding events should be reconstructed or replaced.	DRB and Town Supervisor	2022 and beyond	State of VT DEC	High
	-Consider updating the 2018 Hazard Mitigation Plan in 2023.	DRB and Town Supervisor	Ongoing	State of VT; FEMA	Medium
	-Educate property owners about Current Use assessment as a tool to protect forested lands so that precipitation can be absorbed by forest soils and litter and the peak flow attenuated. Prioritize areas along the tributaries.	DRB and Town Supervisor	Ongoing		Medium
V. Surface Waters	-Establish an undisturbed buffer of natural vegetation between rivers, streams and other water bodies to reduce nutrient input and attenuate overland flow. This buffer should be at least 100 feet for streams such as Fayville Branch with significant potential for lateral or vertical adjustment. Identify partners to pursue this work.	DRB, Town Supervisor, VT Agency of Natural Resources, BCRC, Bennington County Conservation District, Natural Resources Conservation Service	2021-2023	VT DEC	Medium
VI. Historic Resources	-Comprehensively survey of historic resources in the town. Work with preservation organizations to identify and document, and acquire rights, easements, or ownership of	DRB, Town Supervisor, Jerry Mattison, ACCD Division for	2021-2022 and beyond	ACCD	Medium

	historic resources as appropriate.	Historic Preservation, Preservation Trust of Vermont			
	-Pursue listing of the Mattison House and other significant historic structures on the State Register of Historic Places.	DRB, Town Supervisor, ACCD Division for Historic Preservation, Preservation Trust of Vermont	2021-2022 and beyond	ACCD	Medium
VII. Land Use	-Participate in the GMNF Plan update public review process (to occur prior to 2030) to ensure the town's land use priorities are reflected in the plan.	DRB, Town Supervisor, GMNF, BCRC	2028-2030		Medium
VIII. Recreation	Participate in the GMNF Plan update public review process (to occur prior to 2030) to understand any parking solutions for public access to the NF.	DRB, Town Supervisor, GMNF, BCRC	2028-2030		Medium
	Install a winter gate at the entrance to the Fayville legal trail to prevent motor vehicles from accessing trails groomed for snowmobile use.	DRB, Town Supervisor, VTrans, GMNF	2021-2022	VTrans	Medium
X. Public Utilities & Services	Explore MOUs with neighboring towns for provision of emergency services.	Town Supervisor	2022-2023		Low
XII. Energy	Provide information about residential building code and efficiency incentive programs to permit applicants.	Zoning Administrator	Ongoing		Medium
XIII. Hazard Mitigation	Identify and implement stormwater management projects identified as part of the Municipal Road General Permit planning.	BCRC; Bennington County Conservation District; VTRANS	2021-2023 and beyond	Town general fund; State of VT; FEMA HMGP, PDM, FMA	High
	Develop improved assessment of groundwater sources and amend bylaws to assure their protection.	Vermont Geological Survey, DRB, Town Supervisor	2021-2022	FEMA HMGP, PDM; State of VT	Medium
	Update 2012 assessment of hazardous materials and potential accident locations	REMC (the town can appoint a non-voting rep.)	2021-2022	State of VT; DEC funds	High

-Complete surveys for ash trees vulnerable to Emerald Ash Borer in town highway ROW.	DRB, Town Supervisor, BCCD	2021-2022	FEMA HMGP, PDM; VT Dept. of Forests, Parks and Recreation	Medium
When HMP is updated in the future, consider the risk of hazardous materials exposure from overturned trucks on Route 7.	DRB, Town Supervisor, REMC	2022	FEMA HMGP,	Low

XV. CONSISTENCY WITH STATE PLANNING GOALS AND OTHER PLANS

15.1 Statutory Requirements

The draft Glastenbury Town Plan was prepared in 2021-2022; it contains all of the required statements, plans, elements, and maps required pursuant to 24 VSA Section 4382. The Vermont Municipal and Regional Planning and Development Act encourages towns to develop plans that are compatible with the plans of other municipalities in the region and with the regional plan, and which are consistent with the goals that are contained in 24 V.S.A. Section 4302. The following discussion details the plan’s consistency with those goals and a brief discussion of the Glastenbury Town Plan in the context of the Bennington County Region and its other municipalities. The statute also requires that the plan include a recommended program for implementing the objectives of the plan. That requirement is met through the specific policies and recommendations that accompany each individual element of the plan, as well as an entire chapter devoted to specific implementation programs and activities.

15.2 Consistency with State Goals

The Planning and Development Act contains one set of goals that deals with the planning process—24 V.S.A. 4302 (b):

- To establish a coordinated, comprehensive planning process and policy framework;
- To encourage citizen participation;
- To consider the use of resources and the consequences of growth and development;
- To work with other municipalities to develop and implement plans.

Glastenbury has a long-established planning program, implemented through several municipal boards, the Town Plan and implementing regulations, and active participation in the Bennington County Regional Commission (BCRC). Citizen participation is actively encouraged at all stages of the planning process; public planning commission and zoning board meetings are held on a variety of issues and public attendance is strong. Through its active role in the BCRC and various inter-municipal agreements and projects, the town works on a regular basis with other towns in the region and has particularly close ties with the neighboring towns of Shaftsbury and Arlington.

Fourteen specific goals (24 V.S.A. 4302(c)) should be reflected in the Town Plan. Those goals are presented below with a discussion of how each is addressed in the Town Plan.

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

The plan puts an emphasis on restrictive zoning as a way of ensuring longevity to the town's land, specifically discouraging development in Forest 2 zone. The town encourages new development to be built in areas close to existing town roads to minimize costs to the town. Development is to be consistent with the town's desire to maintain its rural character while residences are encouraged to use creative clustering techniques in order to have as limited effect on the natural environment as possible.

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

The plan mentions that the only considerable economic activity comes from forestry.

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

The plan touches briefly on current schooling and childcare conditions, but little thought is put into funding for future education should the number of local students increase. There is also no plan for increasing adult and post-secondary education.

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

The importance of maintaining town roads and infrastructure is stressed in the plan. The plan does not address the potential an increase in economic activity could have on the town's roads (e.g., increased logging). The recreation section describes the many miles of hiking and snowmobile trails with special attention given to the AT/LT and the Fayville Trail.

5. To identify, protect, and preserve important natural and historic features of the Vermont landscape.

The town's natural resources are described in detail and are accompanied by means in which they can be protected through planning, zoning and environmental conscious development. The plan addresses the need to protect waterways including the importance of maintaining riparian buffer zones. The economic and ecological importance of forests is stressed. The plan recognizes that although there no active agriculture land, efforts should be made to ensure that areas of good agricultural soils are maintained even if not currently farmed, realizing in the future farming could be economically important. There is a lengthy

section dedicated to the Town's Historic and historic resources. Numerous historical features with an emphasis on the historic Village of Fayville and The Forks are noted, including the importance they have to the town. Policies for historic preservation are included.

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

The Town Plan contains sections dealing specifically with the protection of water quality, surface and subsurface water resources, fish and wildlife habitat, and land conservation. All resources are identified on town plan maps. Rivers, streams, wetlands, lakes, and groundwater resources are described in detail with recommendations for various regulatory and non-regulatory approaches to protection. The town's land use plan supports land conservation efforts by prohibiting development in the sensitive and mountainous areas of town. A required Flood Resiliency Element is included. Planning for the extraction of land resources puts focus on sustainable extraction and site reclamation.

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

The land use element of this plan reflects how land use planning can promote energy conservation by prohibiting permanent development in the remote forest areas and encouraging its conservation where practical. This plan also discourages capital expenditures on roads and other infrastructure that lead to scattered development. The energy section also discusses the possibility of renewable energy resources such as wind solar, and biomass. Glastenbury's high ridges and remote location makes it potentially suitable as a site for the development of a wind driven electric generating facility. The Town's Act 174-compliant energy policies shall have due standing in Act 250 and Section 248 proceedings.

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

The availability of undeveloped land is important to the well-being of the entire region, and notably so as a resource for hunting, fishing and backcountry recreation. The plan makes special note of the network of hiking and snowmobile trails with special attention given to the AT/LT and the Fayville. The plan states the importance of ensuring continued public access to and from the existing road and trail system.

9. To encourage and strengthen agricultural and forest industries.

The plan includes a map locating the best agricultural and forest soils. Although the amount of primary agricultural soils in Glastenbury is not extensive and no acres are currently being farmed, the Town Plan states that development of these soils should not preclude their future potential for agricultural uses. Development should tread lightly on these lands, which, once developed, permanently lose their agricultural potential. Specific mention is made of Glastenbury's extensive forests and the many miles of logging roads that exist. An objective of the land use plan is the preservation of the working forest

landscape of the town. The land use plan prohibits development on high elevation forested mountainsides.

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

The plan includes a map of potential gravel and aggregate sites and stressed the importance of ensuring these sites are available for use in the future while also ensuring their extraction has a minimal impact on the environment. There is discussion of the economic value of these resources.

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

The Town Plan does not specifically recognize the need to provide affordable housing options for its six residents. The plan does emphasize that on-site water and wastewater systems need to be maintained to function properly.

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

The Town Plan describes the local roads, schools, solid waste disposal program, emergency services, power distribution, telecommunications and the Green Mountain National Forest with its recreational resources. The plan includes discussion and a recommendation associated with planning for the financing of needed services and also includes a discussion of areas of existing and potential cooperation with service providers in Shaftsbury, Arlington and other neighboring communities.

- 13. To ensure the availability of safe and affordable childcare and to integrate childcare issues into the planning process, including childcare financing, infrastructure, business assistance for childcare providers, and childcare workforce development.**

There are no school-aged children in Glastenbury thus there is not a current need for childcare services. The Plan does mention that such services are available in surrounding towns. There is no mention of childcare financing, infrastructure or childcare workforce development.

- 14. To encourage flood resilient communities.**

A flood resilience section has been added to the plan. Topics covered in this chapter are: the Emergency Relief and Assistance Fund, Special Flood Hazard Areas, River Corridors, and the new FEMA flood hazard maps.

15.3 Required Elements

1. **Statement of Objectives, Policies, and Programs:** The plan sets forth a clear set of goals and objectives with policies and recommendations on how best to achieve these through municipal action.
2. **Land Use Plan:** The plan describes current land use which is further shown through maps while addressing ways in which zoning and policy making will influence future development in accordance with the town's values.
3. **Transportation Plan:** The plan describes the condition and maintenance of town roads. Also included is a map showing the town highway and trail network.
4. **Utility and Facility Plan:** The plan contains information on all utilities and facilities needed by the town while also addressing facilities used which are located in neighboring municipalities.
5. **Natural Areas, Scenic and Historic features:** The plan describes these features extensively along with their importance to the community. Policies focus on careful development to preserve these areas.
6. **Educational Facilities Plan:** Only A small section of the plan discusses education since the town does not have any schools or school age children within its municipal boundaries.
7. **Implementation Plan:** Each section of the plan is concluded with a detailed sub-section on policies and recommendations along with the final section of the plan which summarizes the town's implementation plan.
8. **Relationship to adjacent towns and the region:** Numerous sections state the importance and need of interacting with neighboring municipalities while also maintaining strong connection with the county through the BCRC's regional plan.
9. **Energy Plan:** The plan contains issues involved with energy usage along with plans for energy conservation and education. The plan also addresses the potential for renewable energy with an emphasis on wind energy. Energy chapter complies with Act 174 standards.
10. **Housing Element:** There are currently only 6 residents living in two year-round houses. The plan contains goals to locate any future houses in areas best suited for development in order to minimize disturbance to the environment and lessen the need for new infrastructure.
11. **Economic Development Plan:** The plan includes a description of the economic activity within the town focusing on forestry and home occupations. The plan also acknowledges the importance of the nearby economic centers of Bennington and Manchester which employ a large number of the residents.
12. **Flood Resiliency Element:** The plan contains the required Flood Resiliency element which discuss the new FEMA special flood hazard zone maps, river corridors, flood insurance, the emergency aid relief fund and provides measures for flood mitigation. Structures located within the special flood hazard areas and river corridors are listed.

15.4 Relationship to Town and Regional Plans

The Town of Glastenbury has been a member of the Bennington County Regional Commissions since its creation and has developed a working relationship with the BCRC that has assured that local and regional planning efforts are compatible. The Bennington County Regional Plan recognizes Glastenbury as having unique historic and natural resources. Glastenbury lies in the

Regional Plan's Forest land use district, where low density residential uses are allowed and agriculture, forestry, and recreation are emphasized in a manner comparable to the town's objectives for those areas.

Glastenbury residents would like to maintain their town as a clean, quiet place to live, recognizing the importance of nearby larger neighbors as providers of public services, retail and employment centers. Glastenbury aims to maintain its existing forestry industry as a viable activity.

Glastenbury recognizes that the adjacent Town of Shaftsbury provides and will continue to provide jobs and certain educational, recreational, public and cultural facilities to residents of Glastenbury and the region. The Town will continue to cooperate with the Town of Shaftsbury where their services are appropriately provided to the people of Glastenbury. The Town also shares boundaries with the Towns of Sunderland, Somerset and Woodford. Glastenbury will continue to cooperate with these municipalities with respect to issues of mutual interest.

The Town also recognizes roles of the various regional organizations and State agencies in providing regional level facilities and services. The Town will cooperate with the appropriate regional and State agencies to further its objectives in areas such as waste management, housing, conservation, pollution control, economic development, transportation planning, and coordination of land use planning.