



VILLAGE OF
MANCHESTER
VERMONT

PLAN OF DEVELOPMENT

Adopted: 15 September, 2022

First Chartered by the General Assembly of the State of Vermont in 1900

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1.0 INTRODUCTION

1.1 Location

The Village of Manchester (Village) and the Town of Manchester (Town) of which it is a part are located in the northern half of Bennington County (Northshire), the southwestern most county of Vermont. The narrow valley where the Village and Town lie runs North/South and is bounded on the East by the Green Mountains and on the West by the Taconics, of which Equinox is the tallest at just over 3800 feet. The Village lies at the foot of Equinox Mountain and stretches east to the Batten Kill River with its center running North/South along Vt. Route 7A.

1.2 Political History

Manchester was first settled in 1764 based on a land grant from Benning Wentworth, the Governor of New Hampshire, issued in 1761. The early days were tumultuous ones for the settlers as both New York and New Hampshire issued conflicting land grants and each tried to exert exclusive control over the territory. This struggle for control largely ceased after the Revolution. In 1777 Vermont declared itself to be an independent republic, and later, when Vermont was admitted as the 14th State in 1791, Manchester and its residents became a part of the newly created United States.

In the early days the Village served as the governmental center for the Town, but as the Town grew, this changed. In 1900 the legislature granted The Village its own charter, and it became a separately governed part of the Town with the ability to tax, make its own laws, and maintain its own police, fire, water, sewer, and highway departments. Today, police, fire, water and sewer service are provided by the Town, while the Village retains its taxing authority, control over its highways and its ability to make its own laws.

In 1931 the Village put Zoning Bylaws in place. In 1970, responding to State Legislative requirements, the Planning Commission was established and in 1972 the first Plan of Development was adopted.

1.3 History - The early Period

In its earliest days, the Village was primarily a crossroads, featuring numerous taverns and inns. The first three decades of existence were difficult ones for Manchester's settlers. This was frontier country with a harsh climate. Adding to the physical hardships was the political uncertainty, resulting first from contested land titles, and then from the Revolutionary War. Growth was initially slow. Shortly after war's end, Reverend Perkins, a Congregationalist missionary, who was passing through, remarked of the area: "Friday entered ye State of Vermont – a bad appearance at ye entrance ... poor land – very unpleasant – very uneven – miserable set of inhabitants – no religion, Rhode Island haters of religion – baptists, quakers and some presbyterians." Several of the early settlers of Manchester came from the Baptist colony in Rhode Island, of which the Reverend Perkins spoke so badly. The Manchester Baptists enticed Reverend Joseph Cornell to take the land set aside by Governor Wentworth for the first minister to settle in Manchester, and in June of 1781, the Anabaptist Society in Manchester was formed. Free land or no, it was a rough, frontier town that Reverend Cornell found himself in, in that summer of 1781. There were no churches, but there were four taverns where "Drinking, gambling and whoring were common," a jail, a pillory, and a whipping post.

After the Revolution, both Vermont and Manchester began to grow rapidly. Vermont was the fastest growing State in the Union from the end of the Revolutionary War to the War of 1812. Manchester, itself, also grew, rapidly reaching a population of about two thousand two hundred in 1800. Vermont had suffered no physical damage in the war, and its economy had not been bankrupted by the need to arm and equip large numbers of troops. Attracted by readily available land, settlers flocked to the Manchester area, and Vermont kept its frontier character while growing.

The Reverend Perkins visited Manchester in 1789 and wrote in his diary, "A half shire town hemmed in by lofty mountains. A number of houses in ye center, a small meeting house, half Baptist, a loose town." Local industry began to develop and, taking advantage of the nearby marble quarries and abundant water, consisted of several marble mills. Growth slowed in Manchester, and Vermont generally, after the War of 1812, and had virtually stopped as the mid-point of the nineteenth century approached. In 1832 Burr Seminary, later to become Burr and Burton Academy, opened and offered education to young men in what was then the largest building in the State. Young women joined their male counterparts in 1849 and the school became one of the first coeducational institutions in the State. From 1840 to the Civil War, Vermont changed to the slowest growing State in the Union. In these two decades the population of the United States almost doubled, while that of Vermont grew by less than one percent. Vermont's natural resources had been rapidly depleted, and its thin topsoil and harsh climate had proved to be unfriendly to farming. The mountainous terrain made transportation difficult and discouraged industrial activities. The raising of sheep had a brief boon in the 1840s, but the introduction of wool from Australia brought an end to this success. Twenty-three houses remain in the Village from this early phase. Architectural styles represented from this period are Federal and Greek Revival.

1.4 History - The Resort Phase

Beginning in the late 1850s, an outside force would make itself felt in Manchester, which would transform the Village. This force was the tourist. From 1850 into the 1920s, the Village entered, and continued in, its resort phase, with the most notable contributor being the Equinox Hotel. Enterprising citizens of Manchester, such as Martin Vanderlip and Levi Orvis, began to convert the town's once infamous taverns into hotels. The Equinox, Manchester's most famous hotel, was officially opened by Franklin Orvis in 1853. Tourists were drawn to Manchester by the natural beauty of the area, and its relative lack of development. The Equinox House hotel was soon to become the centerpiece of Manchester's tourist industry. Begun as an inn in 1770, the hotel really came into its own when it was enlarged in 1853. The hotel catered to a wealthy clientele, many of whom were from New York. In 1863 the Equinox received a guest who was to establish both its reputation, and that of Manchester, as a tourist destination. On August 25, 1863, Mrs. Abraham Lincoln, and her son, Robert, arrived on the ten o'clock train for a two week stay. Mrs. Ulysses Grant was also a visitor. Manchester's reputation was made, and the next forty years would see the summer trade boom as Manchester transformed itself into a mid-Victorian tourist destination. The Manchester Journal reported that: "In short, Manchester has established itself as a favorite summer resort. . ." Another article in The Manchester Journal stated: "Our quiet little village can almost vie with a Saratoga or a Newport...Every house in the village was as full as a Third Avenue car, almost entirely by New Yorkers. We heard a lady who had been the rounds of all the fashionable watering places remark that no other place has she enjoyed so well as here." Twelve houses were built from 1851 to 1895. Representative architectural styles from this period included Italianate Revival and Queen Anne.

In the mid-1890s a new wave of wealthy people began to arrive in Manchester. Manchester's citizens were thrilled at the Village's newfound social status. Newspaper accounts began to refer to Manchester as being in the same league as Newport and Bar Harbor. Lord Curzon, the future Viceroy of India, courted the daughter of a summer resident in Manchester. Numerous social organizations were founded within the space of a few years. The local chapter of the Daughters of the American Revolution was founded in 1896; the Manchester Historical Society in 1897; and the Twentieth Century Club, the purpose of which was "...the study of Art, Belles-lettres, and Ancient and Modern Social Customs and Functions," in 1899.

This turn of the century atmosphere of boom and optimism, with an emphasis on health and sports and on architecture that was uniquely American, would find one of its purest expressions in Manchester. Mr. E.J. Hawley, a longtime resident and substantial landowner, saw a great

future in attracting more wealthy summer residents to Manchester. The Village was poised and ready for the twentieth century. In 1894 Franklin Orvis built and in 1895 opened the first golf course in the Village for the entertainment of the guests at the Equinox. The first telephone lines connecting houses had been laid in 1895. The same year, the Manchester Water Company was formed to bring running water to the Village for drinking and fire protection. In 1899, the Manchester Light and Power Company began construction on an electric plant to bring electric lights to the Village. In 1900 the Ekwanok Golf Course, designed by Walter Travis, opened. Fast and luxurious railroad service from New York City was already in place. The "Green Mountain Flyer" and the "Mount Royal," featuring daily parlor and sleeping cars, made the trip from New York City in five and one half hours. The Manchester Journal remarked that the Village was a "...cosmopolitan and exclusive stronghold...established by the outside world of affairs, arts, letters, and social registers which...give the town an air of rich and cultured living." Twenty-two of the houses constructed in the Village from 1895 to 1925 remain. Architectural styles represented from this period include Colonial Revival and Shingle Style. The 1940s saw a period of decline and stagnation in the Village that was to last into the early 1980s. In 1973 the Equinox Hotel filed for bankruptcy and closed and the economy of the Village continued to languish. In 1985 a newly renovated Equinox Hotel reopened and the heart of the Village began to recover. That recovery continues today as new facilities are added and old ones renovated, refurbished, or replaced.

1.5 Important Historical Establishments, Buildings, Places, and Institutions

Throughout its history, events, people and businesses have contributed to making the Village what it is today. Many of the Village buildings, together with the institutions that formerly or currently occupy them reflect this.

The Equinox

Since 1769, what is now The Equinox has served as one of the country's most historically significant resorts. "Serving the Republic before there was a Republic," the hotel was a meeting place for several fathers of the American Revolution, hosted American Presidents, including Ulysses S. Grant, William Howard Taft, Benjamin Harrison, and Teddy Roosevelt. The Equinox has served as a favorite vacation destination for Mary Lincoln and Robert Todd Lincoln, the widow and son of President Abraham Lincoln, and hosts of other well-traveled visitors looking to experience the year-round offerings of one of New England's most scenic locations.

In addition to providing food, spirits, and lodgings the Equinox and some of its earlier owners were responsible for the construction of the Equinox Golf Course, Equinox Pond, at the base of Equinox Mountain, and the bottling and sale of the spring waters emanating from the Mountain in pure, sparkling and flavored forms. The bottling plant closed in the 1920s.

The Mark Skinner Library Building

This building, now privately owned and no longer a library, stands at the intersection of the West Road and Vt. Route 7A in the heart of the Village. It is notable, not only for its unusually forward looking architecture, but also as a quintessential example of the results of the Library Movement which swept the United States between the end of the Civil War and the beginning of the twentieth century. Constructed in 1897 at the height of the boom in Library construction in the United States, the Mark Skinner Library was donated to the community of Manchester by Mrs. Frances Willing of Chicago, Illinois, the daughter of Mark Skinner, "an early friend of libraries," as a memorial to her father.

The Mark Skinner Library building was aggressively modern in design for its time. The handsome original structure and the subsequent addition constitute one of the most architecturally important structures in Manchester. The original building was designed by F.W. Stickney, a prominent architect of private and public buildings during the late nineteenth century.

A subsequent addition was designed by Shepley, Bulfinch, Richardson and Abbott, one of the leading modern architectural firms.

In 2015, the Library responding to increased demand and the changing role of libraries today, moved to a new and expanded facility in Manchester Center and was renamed the Manchester Community Library.

Burr and Burton Academy

Burr and Burton Academy is the independent secondary school that has served as the high school for Manchester and its 12 surrounding towns for close to 200 years. Originally established as Burr Seminary in 1829, it opened its doors in 1832 and, in 1849 when women were allowed to attend, it became Vermont's first co-educational school above the elementary level. Currently it accepts all student from Manchester and its 12 surrounding towns together with other tuitioning and international students from around the world. It is recognized as one to the finest secondary schools in the state and provides excellent facilities, challenging programs and an almost 100% graduation rate.

Hildene

Hildene was the summer home of Robert Todd Lincoln, the only surviving son of Abraham Lincoln, and was built in 1904. Constructed in the eclectic Georgian Revival Style, the house is now owned and operated as a museum by the Friends of Hildene, a not-for-profit organization. The main house has been restored and is open for tours. The Carriage Barn has been enlarged and converted into a visitors' center. An educational facility, in period architectural style, has been built, in large part with estate harvested timber, and ecological and historically appropriate programs developed and made available to school children and adults. Agricultural and horticultural activities abound. Hildene's Master Gardener and volunteers plant and maintain exquisite gardens and have cataloged many of the original peonies planted in 1907. There are a number of original outbuildings, including an observatory, on the property, and recently a Pullman railway coach was added to reflect Robert Todd Lincoln's position as President of that company.

First Congregational Church

The First Congregational Church was originally organized in 1784 and was located in a variety of buildings prior to the present Church building being built on Main Street in 1871. Today's church dominates the center of the Village. Its steeple, rising 150 feet, is the tallest building in Manchester and can be seen from around the valley. The front exterior and main sanctuary remain largely as they were originally constructed. The Church is a popular venue for weddings.

St. John's Episcopal Chapel

The Chapel, located on Main Street, was built in 1910 as a replacement for the original sanctuary that was torn down in 1906. The chapel is a combination of Greek and Gothic Revival styles. The building is used for services only in the summer.

The Courthouse

The Bennington County Courthouse immediately opposite the Equinox House on Main Street was originally built in 1822 and, though renovated and enlarged over time, has presided over the center of the Village since that time. Currently it houses the Village Office in the lower floor and periodic use by the court system.

Dellwood Cemetery

The original Village burying ground was located on the site of the Village green, that today includes the ground on which the Congregational Church and the Courthouse stand as well as

the ground that now comprises the Green and the top of Union Street. In 1812 the headstones were moved to make a parade and marching ground for local militia preparing for war. The headstones were moved, along with some of the bodies, to a small cemetery at the South end of the Village that was to become the Dellwood Cemetery. That small cemetery expanded to 10 acres in the 1860's in order to receive the Village's Civil War dead and, in 1865, the Dellwood Cemetery Association was created by an act of the Legislature. Today, the Cemetery remains a beautiful and tranquil place with ponds, a stream, beautiful statuary and many interesting period headstones.

Southern Vermont Arts Center

The Southern Vermont Arts Center, located on West Road, near the north end of the Village, is one of Vermont's oldest non-profit educational and cultural institutions. Founded in 1922, and incorporated in 1933, the Arts Center's mission is "to make both the visual and performing arts an integral part of the life of the community and region..."

The Arts Center campus encompasses Yester House, the former residence of Gertrude Divine Webster, designed by the acclaimed architects, Dana & Murphy, together with 90 acres of woodland and meadow on the foothills of Mount Equinox. The site also contains the Arkell Pavilion, a performing art facility, and the Elizabeth de C. Wilson Museum.

Equinox and Ekwanok Golf Courses

The Village of Manchester was one of the earliest communities in the country to serve as the location of two golf courses; both of which still serve its residents and visitors.

The original Equinox course of 1894 had only 6 holes, but three additional holes were added two years later as the "new" sport proved very popular with the Hotel guests and local residents. In July of 1927 the course was refurbished and redesigned by Walter J. Travis becoming Manchester's second 18 hole course.

The Ekwanok, a beautiful 18 hole course, was brought to life by a local group headed by James Taylor, a summer resident. Designed by John Duncan Dunn and Walter J. Travis, the Ekwanok course opened for play in the summer of 1900 and became one of the premier golf courses in the country, hosting tournaments and many of golf's early great players.

The Orvis Company

The Orvis Company, Inc., a Village institution as well as major Village business enterprise, was founded by Charles F. Orvis, in the Village of Manchester, in 1856. The Orvis Company specializes in fine quality fishing tackle, shooting gear and shotguns, distinctive clothing for men and women, sporting artwork, and unique gifts. The country's oldest mail-order outfitter, Orvis is also the longest continually-operating fly-fishing business in America.

The Orvis flagship store is located in the Village on Main Street, at the north end of the Village, in front of its historic Rod Shop manufacturing facility, where all of the company's premium fly rods are still made and hand-finished. Its school offering fly-fishing and shooting instruction is located immediately across the street from the flagship store, while its outlet store immediately North on the other side of the Orvis Green.

Johnny Appleseed Bookstore

This building, located immediately North of the Equinox Hotel was the Batten Kill Bank building, currently it is a real estate office and a part of the Equinox Resort complex. This historic building is best known for the time it served as the Johnny Appleseed Bookstore. Walter Hard, Sr., (1882-1966) a poet, described in Holiday magazine as "a 120 pound, leather-bound compendium of Vermontiana," immortalized his personal hero in the name he gave to his bookstore. Johnny Appleseed (real name John Chapman, 1774-1845), was an itinerant

agriculturist, missionary and folk hero, who spent 49 years of his life in the early American wilderness, creating apple orchards in Pennsylvania, Ohio, Kentucky, Indiana and Illinois.

Hard, born in Manchester, took over the family drug store upon the death of his father, a temporary move that lasted 31 years. Hard also operated the Johnny Appleseed bookstore, served five terms in the Vermont Legislature, and wrote a weekly newspaper column for 40 years. His poems depicted life in a small community, detailed the stories of people who “were big enough not to amount to much,” and captured the forces of change moving into the community his family had lived in for five generations.

2.0 GOALS FOR THE VILLAGE

A set of broad, long-range planning objectives has been established to guide Village of Manchester (Village) governing bodies and citizens in their evaluation of proposals for change and development. These objectives are designed to maintain and improve living and environmental conditions and to provide for acceptable, orderly growth in the Village.

1. Maintain the small, rural, primarily residential late 19th and early 20th century appearance of the community, particularly as viewed from the Main Street (Route 7A, and all Village through streets.
2. Every effort to preserve the unique and individual characteristics of the Village Core, including:

Historic Structures Historic Architecture Architectural Details	Historic Scenic Streetscapes Mountain and Valley Viewscapes Land Use Patterns, Including Streetscapes
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3. Ensure that new buildings, and repairs or alterations to existing buildings, do not detract from the historic, residential appearance of the Village.
4. Maintain, and update as required, design controls to ensure future residential and commercial development is consistent with numbers 1, 2, and 3 above.
5. Encourage smart growth by concentrating new development in the historically settled village center to sustain the Village as a vibrant place to live, to conserve energy required to move people and goods, and to protect surrounding open space.
6. Preserve open space and scenic views such as Mount Equinox and its environs to the west, the Green Mountain ridgeline to the east, and the Orvis Green to the north. Discourage the fragmentation of forested lands.
7. Maintain traditional neighborhood lot sizes and densities consistent with numbers 1 and 2 above.
8. Limit commercial development to the Village center and the commercial areas north of the Village center, along Route 7A.
9. Encourage small businesses, which integrate seamlessly into the Village environment.
10. Discourage businesses that are high traffic, high profile, or that would otherwise detract from the residential nature of the Village.
11. Avoid situations that cause undue adverse impact on facilities, services, and utilities covering public health and safety, protection, schools, recreation, water supply, solid waste disposal, public and private roads, etc.
12. Limit business and residence growth to a rate commensurate with the ability to provide adequate facilities, services, and utilities.
13. Support in appropriate areas the development of diverse and affordable housing options for the area's workforce and for those on restricted incomes such as the elderly.
14. Coordinate planning and development reviews when there are inter-municipal or regional implications. Coordinate the provision of services and facilities provided by the Town of Manchester.
15. Ensure that land development reflects the particular resource value and attributes of the site and bordering areas, such as historic sites, scenic areas and vistas, open lands, etc. Although Equinox and Little Equinox Mountains are not located within the boundaries of the

Village, their ridgelines are vitally essential features of the Village landscape and ambience, as well as irreplaceable natural resources, which must be preserved in their natural and pristine states. Extreme care must be taken to ensure that current and future energy source development (alternative energy sources), does not adversely impact those features

16. Special consideration should be given to cultural and educational institutions, and the need to accommodate their architectural design requirements and uses.
17. Adopt regulations and attract qualified personnel to implement the Plan's goals.
18. Every effort must be made to avoid causes of pollution, including development of industrial facilities, which, by their location, or in their construction, maintenance or dismantling, could have a negative impact on the water supply, atmosphere, or other aspects of the environment.
19. Maintain a Hazard Mitigation Plan to prepare for and deal with possible catastrophic events.
20. Maintain the Village Center Designation through the Vermont Agency of Commerce and Community Development to help commercial property owners qualify for tax credits, and for the Village to receive priority consideration for state grants and other resources.

3.0 LAND SUITABILITY AND NATURAL RESOURCES

Recognizing and accommodating the physical characteristics and natural elements of the landscape is critical for planning future land use. Steep slopes and unstable soils, drainage and flood prone areas, high elevations, and other land characteristics limit development. Water, timber, scenic vistas, open space, and other natural resources require protection and preservation.

3.1 Surface Hydrology

Surface waters such as the Batten Kill and smaller brooks and streams are critical to the Village's water system. Any destruction, diversion, or pollution of drainage channels can affect public water supplies and plant and wildlife habitat. The Batten Kill and its watershed is a regional resource requiring regional cooperation in river planning and management. Continued vigilance is needed in enforcing environmental regulations for new and existing development to protect the quality of this resource. The Village, together with Dorset, Manchester, Sunderland, Arlington, and the New York towns of Salem and Jackson, must exercise appropriate control over land development near rivers and streams to prevent degradation of recreational and scenic values.

The Village contains several man-made ponds. The most visible is the pond on the Orvis Green. The largest pond in the Village is Equinox Pond. The surface area of which is fifteen acres. Equinox Pond is at an elevation of 1,100 feet, and contains a basin area of 537 acres.

Wetlands provide temporary storage for floodwaters and storm runoff; protect water quality; mitigate the effects of erosion; contribute to fish and wildlife ecology, and provide scenic beauty. Village wetland areas have been periodically mapped by the Fish and Wildlife Service, Department of the Interior, and the Secretary of the Vermont Agency of Environmental Conservation. A wetland may be designated if the water table is at, near, or above the surface long enough to promote the formation of hydric soil or to support the growth of hydrophytic vegetation. Wetlands include marshes, swamps, flooded flats, wet meadows, bogs, ponds and sloughs. Vermont wetland rules were adopted by the Vermont Water Resources Board in 1990. These provide special protection for different classes of wetlands. Class I is considered exceptional and irreplaceable. No effort has been undertaken to date to determine whether or not there is a Class I wetland in the Village. However, all Village wetlands shown on the national wetlands inventory map are Class II, and as such are somewhat protected subject to field evaluation. Wetland coverage can be seen in Map 3-1. Flood plains and wetlands should ordinarily not be filled.

3.2 Topography

Topography may be classified by slope or gradient. Lands of a slope between 0% and 5% are usually suitable for all types of development. Lands of between 6% and 10% slope are ideal for subdivisions. A slope of between 11% and 15% poses moderate limitations to development.

Land with slopes of over 15% may be limited for development, because of thin soils, susceptibility to erosion, and difficulty in siting roads. Land with slopes of 20% or greater have severe limitations and should not be developed.

Large areas of land with slopes in excess of 20% are primarily along the eastern boundary of the Village, on the west bank of the Batten Kill, and, to some extent, along the western Village boundary near the Southern Vermont Art Center.

3.3 Soil Suitability for Development

The permeability, stability, depth to bedrock, and content of soils can create limitations for septic systems, roads, and building foundations. Unstable soils in the Village are predominately along the west side of the Batten Kill. Much of the land between these unstable soils and Main Street (Route 7A) has few apparent soils limitations to development.

3.4 Earth Resources

Marble, Sand, and Gravel

At one time, marble extraction was a major industry in Manchester and Dorset. However, the most recent investigations suggest that the quantity and quality are not sufficient to warrant economic investment in this resource. Given the existing and established pattern of development in the Village and goals, this plan neither encourages nor provides for commercial extraction or processing of earth resources. However, removal and reuse in conjunction with development projects is appropriate in accordance with a re-grading and site restoration and improvement plan.

Agricultural Lands

The Village does not contain commercial agricultural operations. Agricultural operations conducted at Hildene are primarily educational in nature. Much of the open land is in recreational, cultural, and institutional uses. Several large parcels (5-50+ acres) are also associated with estates, dwellings, and, to some extent, inns. Aside from recreational use of open lands, the balance tends to be maintained for aesthetic purposes associated with the use, or kept in a natural state.

Open lands may contain prime agricultural soils identified by the U.S. Soil Conservation Service. The agricultural value of some soil series may have a bearing on development plans. Consequently, such soils should be evaluated, and if deemed important, considered in site plans. In addition to soil productivity, a site and area viability assessment should be made to determine how practical agricultural preservation is for a given parcel. Agriculture soils can be seen in Map 3-2.

Some agricultural uses may not be compatible with other uses (residential, lodging) in the Village, due to certain types of nuisance characteristics. State law limits zoning authority for accepted agricultural practices.

3.5 Scenic Roads, Trails, and Views

Vermont legislation provides for the recognition and retention of scenic roads. Until the Village's scenic roads are officially identified, public or private actions, which may have a negative impact on the scenic aspects of any Village road, should be stringently evaluated.

In 2007, the Village of Manchester Planning Commission, with the assistance of the Bennington County Regional Commission, prepared and published an Inventory of Scenic Resources to identify those critical elements that make the local scenery unique and valuable, and are particularly important in defining the character of the community. An understanding of the features that contribute to the Village's unique beauty will greatly assist in planning for the protection and wise use of its scenic resources.

Additionally, the Village has a vast amount of trails. The Equinox Preservation Trust Trails are the most extensive and connect along the western edge of the Village before continuing up Mount Equinox. In addition, the Southern Vermont Arts Center also has some trails. These trails are shown on the Transportation Map in Chapter 8. Trail systems in the Village are beneficial to the community and visitors alike.

3.6 Open Space

The Equinox Golf Course, the Ekwanok Golf Course, Dellwood Cemetery, Hildene, the undeveloped areas of the Southern Vermont Art Center, lands of the Equinox Historic Preservation Trust, and some of the larger estates are all-important contributors to the open aspect of the Village. These properties can be seen on the Community Facilities and Utilities Map in Chapter 9. Any proposals for development of these and other open areas in the Village should be carefully reviewed to minimize any negative impacts.

Some open lands have historic or cultural value, and exemplify the early rural settlement pattern of the Village, while others have recreation value. They contribute to the retention of views extending

across open fields and open vistas. Retention, not only of historic structures and properties, but of the Village landscape is essential to protect examples of the historic settlement pattern. Some examples of important open spaces include: Quasi-Public - Hildene, Southern Vermont Art Center; Recreational - Equinox Golf Course, Ekwanok Golf Course; Large Estates - the Bremer and the Clark Estates; Small Estates - the Ross (Inslee), Redmond (Arkell/Wilson), and Olcott (Hardy) Estates; and other special types such as Burr and Burton Academy, Dellwood Cemetery, Equinox Pond, the Wilburton Inn, and Orvis Green property fronting along Route 7A. Other open lands may contribute significantly to preservation of natural resources such as the Batten Kill shoreline, or the retention of natural ridgelines, particularly those of Big Equinox and Little Equinox Mountains. The Vermont State Planning and Zoning Act enables municipalities to protect and maintain early settlement patterns. The Design Control regulations of the Zoning Bylaws are intended to implement the goals of the Plan and reinforce the historic settlement pattern of the Village.

3.7 Biological Areas and Forest Blocks

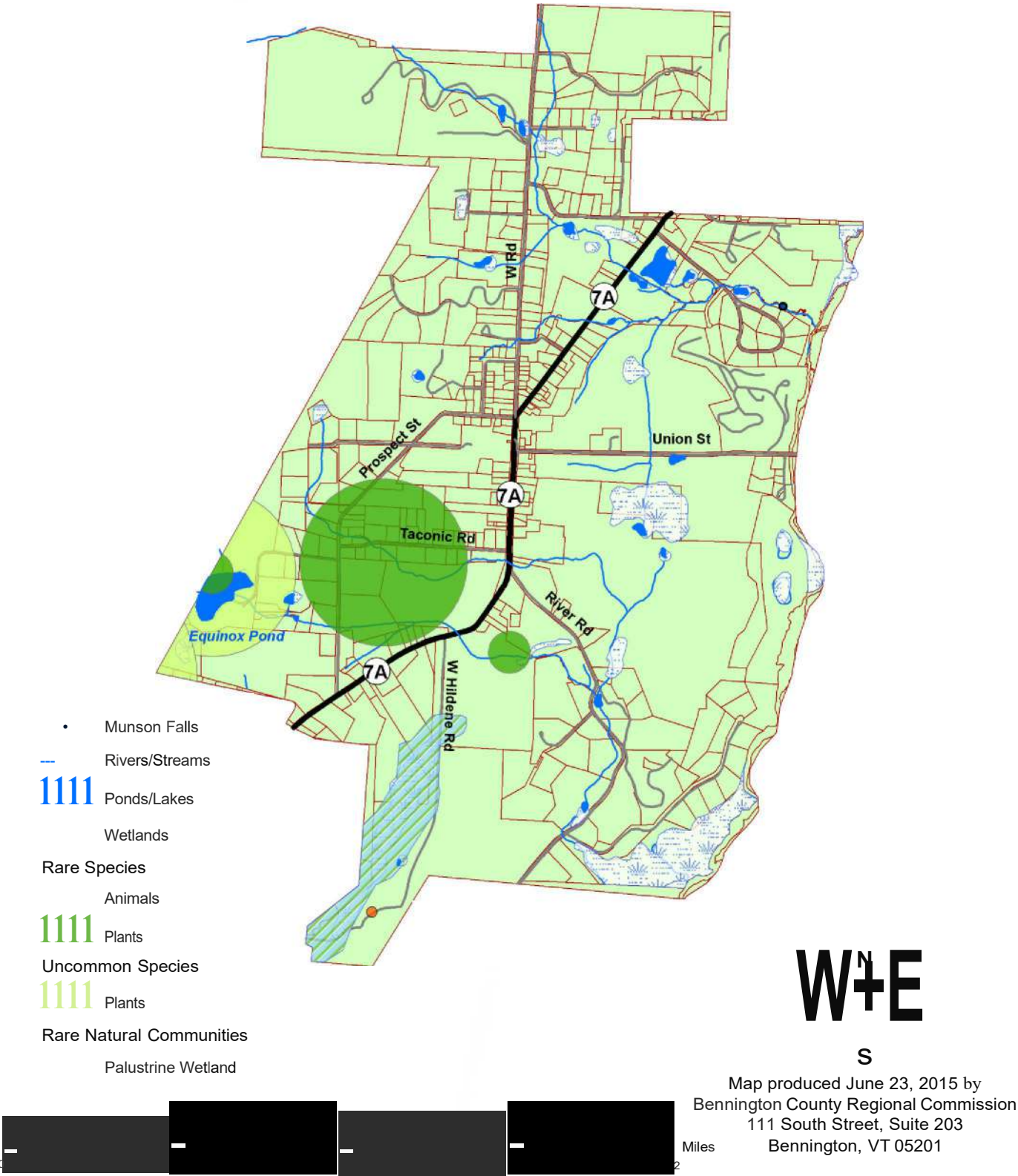
The Bennington Region and Towns contain a number of rare plant species, animals, and natural communities. Two such areas are identified as rare plant species locations in the Village. One area is in the vicinity of Equinox Pond, and the other is near the Dellwood Cemetery. A medical herb community (*Veronica anagallis-aquatica* L. – water speedwell) borders the Village at the base and slopes of Equinox Mountain. Rare plant and animal species can be seen in Map 3-1.

The Village is generally comprised of developed areas and cleared green spaces, with a notable exception along the Village's western edge at the base of Mount Equinox. This forested area, some of which is conserved by the Equinox Preservation Trust, links to a contiguous forest block that covers Mount Equinox and upland areas of the Taconic Range, a highly diverse forested area due to calcareous bedrock and soils. Map 3-3 shows forest blocks and wildlife road crossings mapped by the Vermont Agency of Natural Resources (ANR). "Interior" forest blocks are primarily forested, but may include wetlands and other natural community types. They are considered the highest priority for protection from fragmentation and development. Many species such as migrating birds, bobcat, and black bear need large, unfragmented habitat for their populations to thrive. Preservation of expansive tracts of contiguous and undeveloped forest land is key to these species' survival. Connectivity among forest blocks is also vital as species travel great distances to forage and socialize; ANR has identified "Connectivity" blocks that link Interior forest blocks to prioritize for protection of wildlife travel corridors. Major barriers to wildlife movement are roads, and in particular Routes 7A and US 7. Wildlife crossings mapped by ANR indicate that within the Village, River Road and Prospect Street are frequently crossed by wildlife.

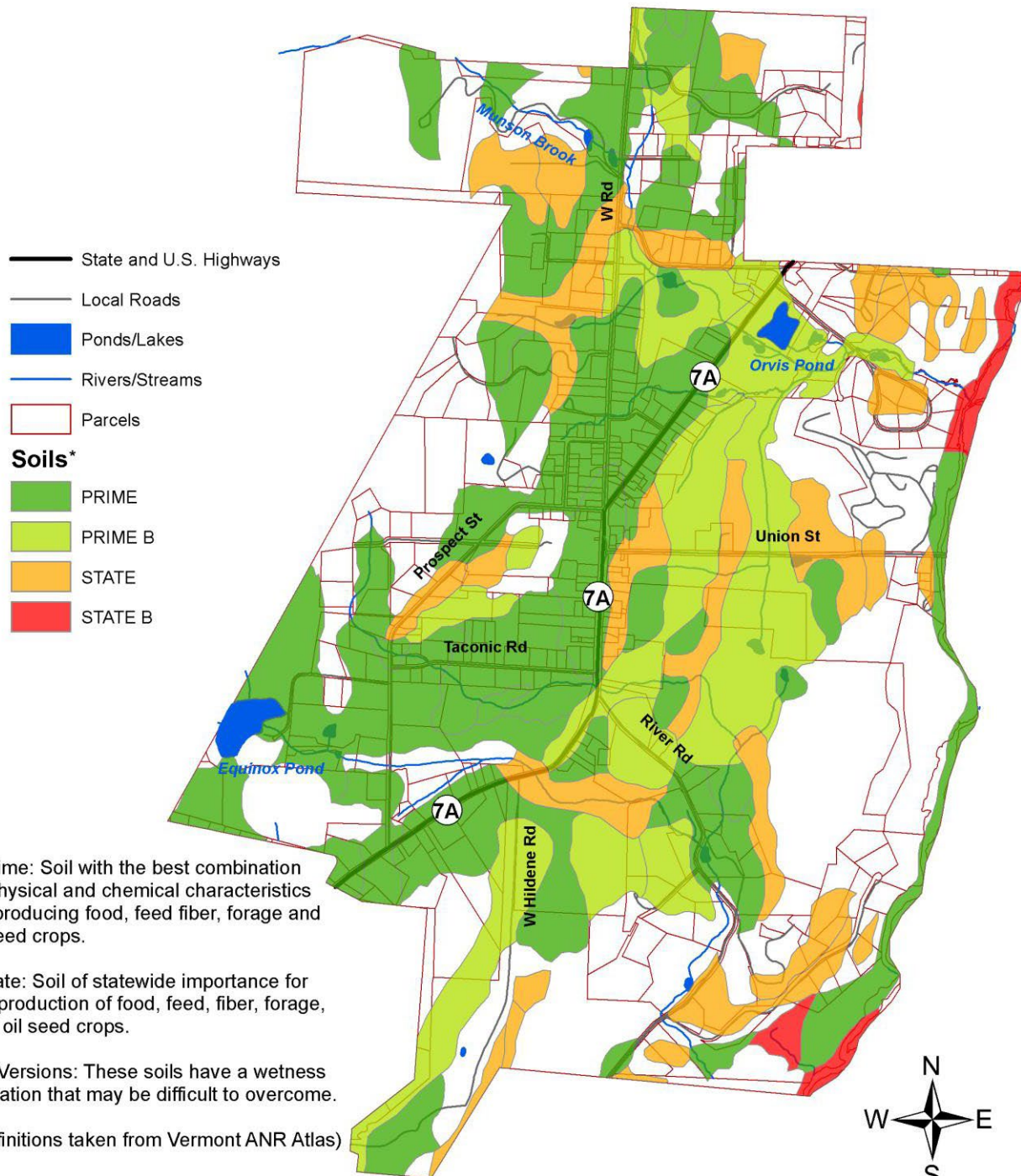
Policy: Land use policies and development review should incorporate forest block habitat analyses to avoid forest fragmentation and to protect wildlife populations from decline.

Map 3-1

Natural Resources



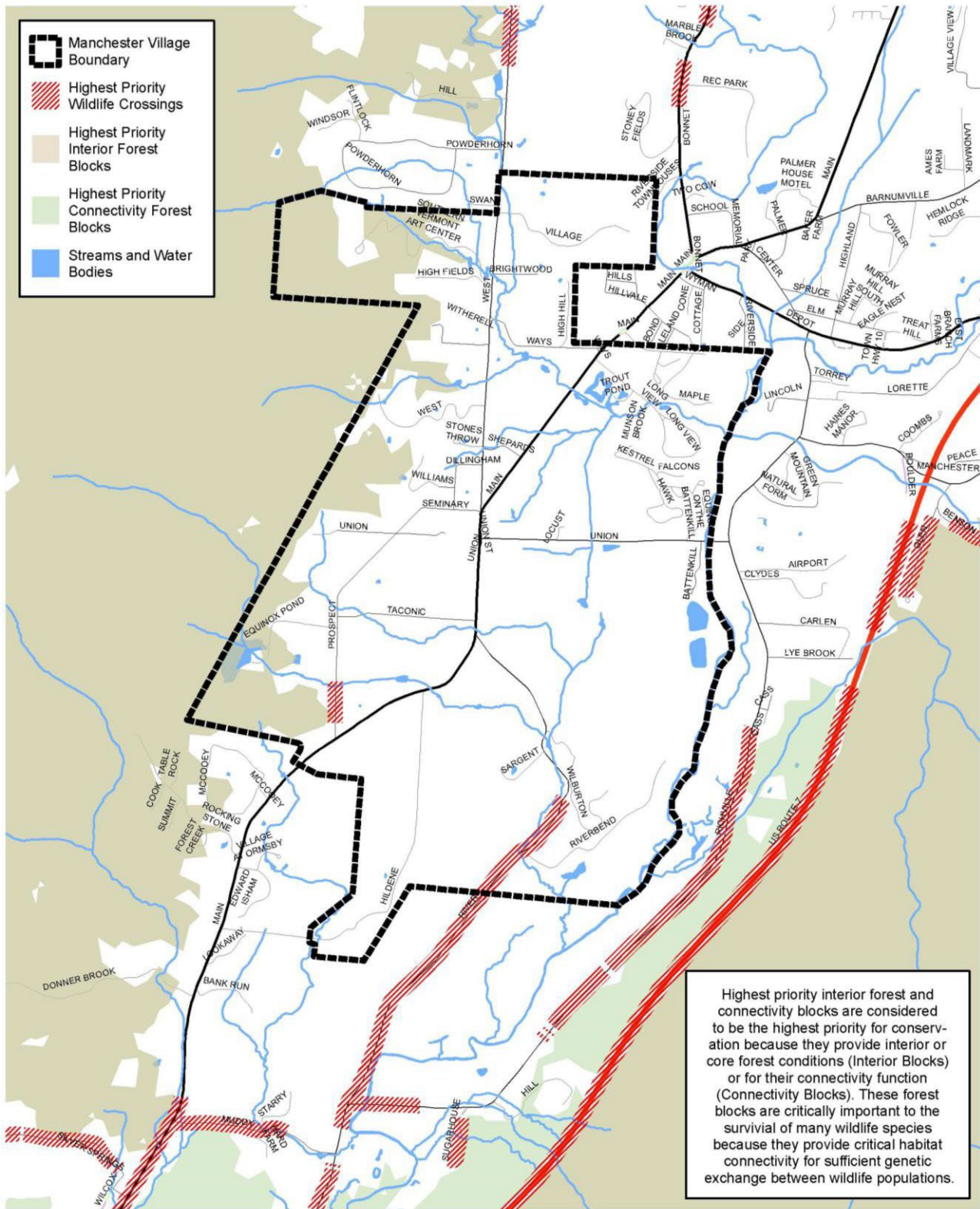
Map 3-2 Agricultural Soils



0 1.8 Miles

Map produced June 23, 2015 by
Bennington County Regional Commission
111 South Street, Suite 203
Bennington, VT 05201

Map 3-3. Manchester Village Forest Resources



Map produced May10, 2022 by
Bennington County Regional Commission
210 South Street, Suite 6
Bennington, Vermont 05201

0 0.25 0.5 1 Miles



4.0 FLOOD RESILIENCE

4.1 Overview

With changing climate conditions and more extreme weather events, flooding is likely to occur with much greater frequency. It is imperative that communities properly prepare to minimize future flood damage and to develop the capacity for post-flood resilience. The State of Vermont maintains a Flood Ready Website that provides comprehensive information for municipalities. Effective flood resilience requires several steps, including: assessing hazards, avoiding and reducing risks, preparing for an emergency, and insuring residual risk.

Once damage from a flood has occurred, it is important that communities have the capacity to effectively rebuild and recover. Following through on risk reduction strategies is critical at this stage, as is the ability to effectively access financial and other support from federal and state government agencies.

4.2 Assessing Community Hazards

Special flood hazard areas include areas that have been determined to have a one percent or greater chance of inundation from flooding in any given year. These areas are shown in the Digital Flood Insurance Rate Maps (DFIRM), and can also be seen in Map 4-1. As a participating municipality in the FEMA Flood Insurance Program, the Village of Manchester maintains land use regulations that control the type of development that occurs in these areas. In addition, the Village does not have any repetitive loss structures.

River corridors and Fluvial Erosion Hazard (FEH) areas require special attention because of the potential for flood-related damage to buildings and critical infrastructure resulting from the erosive force of floodwaters. River corridors include the meander belt of the channel and a fifty-foot buffer to allow for stable bank conditions adjacent to structures, in order to maintain dynamic equilibrium over time. River corridor maps have been developed based on scientific, location-specific assessment of the geomorphic condition of a river developed by the Vermont Rivers Program. The major river corridors in the Village of Manchester have been delineated by the Bennington County Regional Commission in cooperation with the Bennington County Conservation District and the state. The maps show corridors within which the rivers are likely to meander over time to find their most stable path while efficiently moving and storing sediment loads. The orientation and width of these meander belts varies with valley shape, surficial geology, and the natural channel length, slope, and width. FEH areas are equivalent to the meander belt, also known as the River Corridor Protection Area. River corridors can be seen in Map 4-1. Currently, the Village of Manchester has an ordinance in place to protect the river corridors and FEH areas.

As noted above, most flood-related damage in Vermont results from the erosive power of water causing damage to buildings and critical public infrastructure such as roads, bridges, and culverts. Public water and sewer systems, parks, and important historic sites also have been damaged by flooding-related erosion. Where stream meanders are confined by human activity, the waterways lose their equilibrium and become steeper, straighter, and more powerful, significantly increasing the risk for damage.

There are nine structures located in the flood hazard area, and four structures located in the river corridor. The flood hazard area maps (DFIRM) for Bennington County, and the Village of Manchester, became effective on December 2, 2015.

4.3 Limiting Risk from Flooding

Elements of the natural environment play an important role in minimizing the extent of the risk from flooding. Upland forests help to retain water during storms and minimize the erosive forces that would add sediment and debris to river channels. Wetlands, particularly those in floodplain areas, retain stormwater and protect water quality during and after heavy rains.

The Village's Flood Hazard Ordinance controls development in areas prone to flood inundation, enables the Village of Manchester to participate in the National Flood Insurance Program and, through that program, for property owners to have access to flood insurance. The regulations required by the insurance program set development standards that minimize adverse impacts on structures that would be caused by high water. The Village also has adopted regulations to protect mapped FEH areas within river corridors. The most important reason to protect these FEH areas is to allow the river to adjust to changing levels of water, sediment, and energy, thereby dissipating destructive potential prior to impacting concentrations of residential or commercial development or critical public infrastructure. New municipal and state infrastructure should be located outside any of these hazard areas, or when that is impossible (as with the case of some bridge and water treatment facilities) that it be properly designed and constructed.

Roads and stream crossing structures (culverts and bridges) are particularly vulnerable to damage from flooding. Many existing culverts are too small to carry flood waters and too narrow to accommodate the stream channel, causing a back-up of sediments and creating plunge pools that damage roads and imperil nearby properties. Consequently, the Village is engaged in an ongoing assessment of the physical and geomorphic condition of its culverts and bridges and developing a plan for needed upgrades. The roadway design standards in the Village of Manchester should remain consistent with the most current "VTrans Orange Book" standards to correctly size replacement structures.

New Emergency Relief and Assistance Fund (ERAF) Standards took effect in 2014. This program provides state funds to communities after a declared disaster to cover a portion of the cost of repair and restoration work not covered by federal funds. Communities receive additional state funding if they have taken specific steps to reduce the current risk (an extra five percent for steps 1-4, below, and another five percent for also implementing step 5):

1. Participate in the National Flood Insurance Program;
2. Annually certify that Town Road and Bridge Standards meet or exceed the standards in the current *VTrans Orange Book: Handbook for Local Officials*;
3. Annually update and adopt a Local Emergency Operations Plan;
4. Adopt a FEMA-approved local Hazard Mitigation Plan (or, a draft plan has been submitted to FEMA Region 1 for review);
5. Protect River Corridors from new encroachment; or, protect flood hazard areas from new encroachment and participate in the FEMA Community Rating System.

Local Hazard Mitigation Plans involve identification of local hazards while prioritizing the steps needed to mitigate risk and providing access to a funding source through the FEMA Flood Mitigation Assistance Program. To be effective the local Hazard Mitigation Plan must clearly identify and prioritize specific projects. Funding to implement mitigation projects may be available through the Hazard Mitigation Grant Program (HMGP) in Vermont or through other FEMA Flood Hazard Mitigation Assistance programs. The Village adopted a Hazard Mitigation Plan in 2017 and it will require updating in 2022. Policies of the 2017 Plan are adopted here by reference.

4.4 Preparing for an Emergency

Once a flood or other emergency situation occurs, it is imperative that municipalities have a consistent and reliable system for coordinating response. A Local Emergency Operations Plan (LEOP) is an effective way to coordinate local response and facilitate contact with other towns and agencies. The LEOP provides a list of local names, numbers and assigned roles, resources available, contact information, and provides a framework for coordination with support services available at the state and federal level. The LEOP should be updated annually and a copy submitted to the Vermont Division of Emergency Management and Homeland Security.

During large events multiple towns may collaborate, sharing staff, equipment, and other resources to achieve the most rapid and cost-effective response. Bennington County's Local Emergency Planning Committee (LEPC #7) provides an ongoing forum for inter-municipal communication and preparedness planning. Municipalities also can execute formal inter-municipal mutual aid agreements that specify how support services are requested, cost sharing, and other issues. Having formal agreements in place will not only assist in the response phase of an emergency, but also can help recover reimbursable costs through FEMA in the event of a federal declaration.

4.5 Insuring Residual Risk

Most homeowner's insurance policies do not cover damage from flooding. The National Flood Insurance Program (NFIP), however, offers flood insurance for properties anywhere in communities that participate in the program – including the high risk Special Flood Hazard Area. While lenders must assure that mortgages for structures in Special Flood Hazard Areas are insured for flood risk, many existing structures in these areas either do not carry flood insurance or are not fully insured to receive "replacement value" after a disaster.

Flood insurance information is available for consumers at www.FloodSmart.gov. That site helps to identify properties in areas of defined flood risk, explains the FEMA map products, and outlines insurance options. Recent federal changes to the NFIP have resulted in an increased costs, but insurance for affected properties remains available through that program.

If a structure is not insured the owner assumes the entire risk of property loss. In the event of a flood disaster the owner may be eligible for FEMA's Individual and Households Program Assistance, but this funding will not cover any losses that could have been insured. At the time of Tropical Storm Irene, the maximum Individual Assistance grant was \$30,200 and the average grant in Vermont was \$6,752, while the average NFIP claim was \$43,078.

Participation in the FEMA Community Rating System can decrease the cost of flood insurance for Village residents. By taking extra steps to reduce flood damage, flood insurance policies are discounted from 5% to 40%. Additional information about CRS and other flood hazard initiatives is available from the Watershed Management Division of the Agency of Natural Resources.

4.6 Recovery After a Flood

Following the immediate response to a flood, communities often are faced with significant costs. Repairs to bridges, removal of debris, and armoring banks can cost a municipality several million dollars. After a federally-declared disaster qualified losses may be reimbursed through the federal Public Assistance program and Vermont ERAF. It may take a considerable dedication of municipal resources to navigate the federal bureaucracy after a disaster, a process made somewhat easier when complete and accurate records of damage and repair are maintained by the municipality.

Effective long-term recovery from a flood requires that each of the steps outlined in this chapter are followed. Working to minimize risk and future damage, maintaining a current emergency operations plan, and insuring residual risk to the extent possible are the best ways to support recovery and ensure that the community is as resilient as possible.

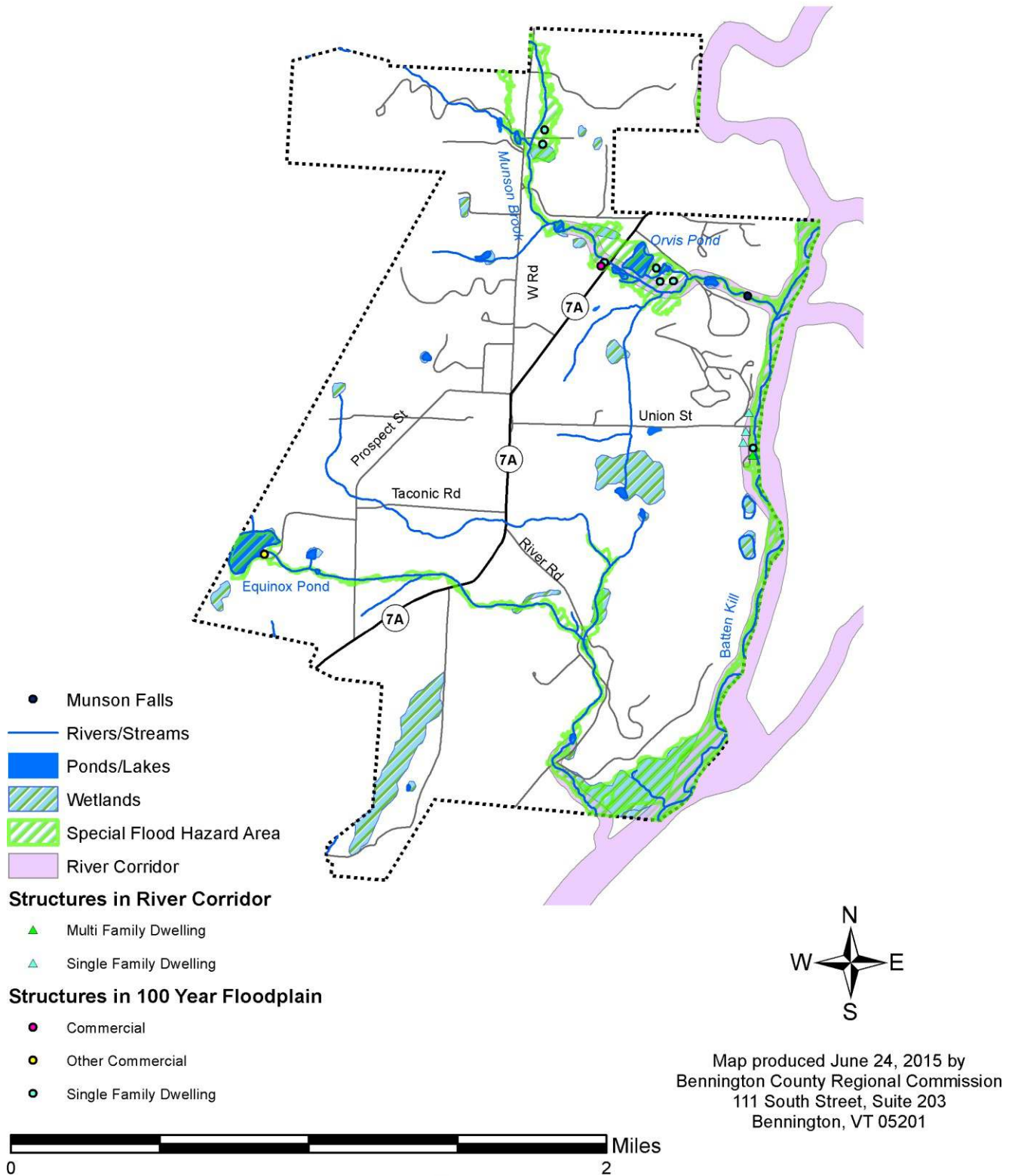
4.7 Village Preparedness

The Village of Manchester is part of the NFIP, as mentioned above, has adopted the Town Road and Bridge Standards, and maintains a current LEOP through the Town of Manchester. The Village started developing a Hazard Mitigation Plan in the fall of 2015. The anticipated completion date for the Hazard Mitigation Plan, including adoption, is summer 2016.

4.8 Policies for Flood Resilience:

1. Continue to work cooperatively with the BCRC and the Vermont Agency of Natural Resources to maintain accurate flood hazard maps and to identify specific areas of concern that should be targeted for mitigation actions.
2. Continue to work with state and federal agencies, and conservation and watershed organizations, to maintain and enhance the ecological integrity of rivers, streams, wetlands, and upland forests.
3. A buffer of natural vegetation should be established and maintained between rivers, streams, and other waterbodies to maintain water quality and to attenuate overland flow. This buffer should be at least 50 feet wide for streams with minimal potential for lateral or vertical adjustment or 100 feet for streams with significant potential for such adjustment.
4. Maintain up-to-date regulations to limit and control development in flood and fluvial erosion hazard areas. Any public infrastructure that must be located in these areas should be carefully planned and constructed to minimize the potential for loss and damage.
5. Remain current with the most recent Town Road and Bridge Standards.
6. Existing local and state bridges and culverts that would impede flow during flooding events should be reconstructed or replaced as part of regular scheduled maintenance or through special hazard mitigation initiatives.
7. Support efforts to provide education and outreach to property owners within flood areas to encourage flood-proofing or buy-outs of structures subject to repeated flooding that are eligible for funding under the FEMA hazard mitigation grant program.
8. Consider participating in the Community Rating System.
9. Owners of property in flood hazard areas should be encouraged to secure propane tanks, fire wood, boats and other items that could float away in a flood.
10. Maintain an up to date Local Emergency Operations Plan.
11. Maintain a current Hazard Mitigation Plan.

Map 4-1 Surface Water and Flood Hazard Area



5.0 LAND USE

5.1 Settlement Pattern

The Village has experienced an orderly, concentric growth pattern. Its late 18th Century structures, many of which are still intact, have been adapted to new uses and are complemented by 19th Century Greek Revival and Victorian buildings within the compact Village center, along Route 7A. Taconic Avenue and Seminary Avenue, which intersect this main thoroughfare, are lined with later structures of the Victorian and Queen Anne periods. Surrounding this nucleus are numbers of still later, early 20th Century, large estates of a variety of architectural styles, some typical of European manor houses, and others, neo-Colonial in design. Among these estates are numbers of once-working Vermont farms, which have now been converted into leisure country homes. This outer zone of large properties is integrated with the Village nucleus by lands developed and maintained for recreational purposes, primarily golf. Mature trees, wide expanses of lawn, marble sidewalks, ornamental street lights, walls, and entrances, are all integral features of the Village's character, as are the predominantly white exterior buildings with dark shutters. Another defining characteristic of the Village is the dominant scenic value of Mount Equinox, in its natural and undeveloped state, the loss of which would be immeasurable.

The northern quadrant of the Village, which includes Burr and Burton Academy, Southern Vermont Arts Center, the former Mark Skinner Library, First Congregational Church, a number of small homes and some commercial activities, is the community's physical and historical link to the neighboring Towns of Manchester and Dorset. The northern area along Route 7A is pressured by multiple use development.

The Village has several entrances. The entrance from the north, at the Town boundary, occurs where Route 7A turns a bend at Ways Lane, and a view up the hill to the Village center is revealed. Despite, and to some extent, as a result of, the cluster of buildings in this area, this gateway entrance is somewhat unstructured.

Positive developments in the area include the acquisition of the former Combe property by The Orvis Company, and that company's agreement to retain the re-named "Orvis Green" in its undeveloped condition. A limited number of tent sales and Orvis sponsored community events are held on the "Orvis Green." Appropriate off-site parking as well as vehicular and pedestrian control measures will help to reduce the traffic impact of such events.

The Village center, particularly along Route 7A, has retained much of its residential character. Some of the 19th Century homes remain in single-family occupancy, although others have been converted to two-family use. The Equinox Resort Complex, the Equinox Junior Building's Shops, The Charles Orvis Inn, The 1811 House, the County Courthouse, the former Mark Skinner Library, and The First Congregational Church remain the pivotal structures of the Village center.

Maintaining a continuity of existing development types, primarily residential, must continue to be emphasized as the primary way of assuring continued preservation of the character of the Village.

The total area of the Village is 3.6 square miles, or 8.7% of the Town of Manchester area, which contains 41.4 square miles. Map 5-1 shows the development pattern of the Village.

Presently, the existing diversity of building types does not detract from the feeling of homogeneity in either the built-up, or the more rural, areas. Rather, it typifies continuing development, with each element adding its share to the whole and perpetuating the unique ambience of the Village. Ensuring that future growth is visually compatible with the existing character of the Village will continue to be the planning challenge of years to come, as will the preservation of the residential appearance of the Village. Seasonal and transient occupancy will require continued monitoring to achieve this goal.

5.2 General Guidelines for Development

For the purposes of this Plan, "development" is defined to mean any change in any use of land and structures. Development includes the division of a parcel of land into two or more parcels; the construction, reconstruction, conversion, structural alteration, relocation, or enlargement of any structure; any mining, excavation, landfill, or land disturbance, and any use or extension of the use of land. The density of development is defined in the Zoning Bylaw.

1. Any type or style of development that would adversely alter historic structures, or alter the aspect of the small, well-preserved, late 19th and early 20th century village and resort community, must be avoided.
2. Land use and development must be consistent with the land's capability to support such use and development. The natural and irreplaceable resources such as the scenic backdrop of Mount Equinox and Green Mountains must be preserved.
3. Development projects must integrate natural features and resources, rather than reclaiming, modifying, or destroying them.
4. Open space and landscaping must be incorporated into development projects.
5. Development must consider the relationship to adjacent properties.
6. Utility lines should be off-street or preferably installed underground.
7. Parking shall be to the rear of the building whenever possible and feasible.
8. Land development may be permitted only on lots with a 50-foot frontage on a public street or, with approval of the appropriate municipal panel, with access to a public street by permanent easement or right-of-way. Right-of-ways serving one family shall be a minimum of 20 feet wide, and those serving two or more families shall be a minimum of 40 feet wide.
9. Noise levels in all districts shall not be greater than levels acceptable for residential environments, and in accordance with any standards established by the Village.
10. Signs shall not be located in the Village right-of-way except as required by law, needed for traffic and pedestrian safety or as otherwise provided.
11. Development and signage shall adhere to the design guidelines and/or criteria established for the Village.
12. Before any multiple ownership plans of five or more units (whether called time-share estates, time-share license, club form of ownership or otherwise) shall be permitted, the applicant must demonstrate that the multiple ownership plan does not jeopardize the ability of the multiple owners to raise the necessary capital required to maintain and vitalize the property. This Guideline shall be enforced and implemented to the full extent permitted by the Village Charter and 24 V.S.A. Chapter 117. This Guideline shall not apply if the property is owned by a single entity.
13. Small and mid-scale renewable energy development is appropriate, when well-sited in compliance with all applicable ordinances, in many areas of the Village. Large-scale renewable energy facilities are appropriate only in preferred areas.

5.3 Clustering

Clustering is a planning tool designed to reduce the spread of housing development and to gain greater amenity without changing the overall density of the total area. Proposals for clustering single-family dwellings retain the overall density of the zoning district while retaining the remaining land as permanently open space. Clustering may be appropriate in some areas to facilitate the economical provision of streets and utilities, and enhance the environmental quality of the area through maximum preservation of open space. Not only does clustering new development limit the need for road maintenance and public service costs, but it is also inherently more energy efficient than sprawling development in more rural areas of the Village.

In the Village Zoning Bylaws, the Development Review Board may permit clustering in Rural Residential Districts. In areas served by public water and sewerage, the tract of land to be subdivided must be 18 acres or larger. Where utilities are unavailable, the tract must be 30 acres or larger, and the proposed sewage disposal facilities must comply with the applicable Village, Town, and State Sanitary Codes.

A site plan must be prepared and reviewed at an open public meeting. Street design, lot layout, and locations of open space must implement the stated objectives of the Village Plan and must be approved by the Planning Commission.

5.4 Planned Development

Zoning provisions for Planned Unit Development (PUD) allow a Planning Commission, or Development Review Board, to waive its conventional zoning in favor of a development plan designed specifically for the characteristics of a particular large site. The site is developed as a single entity for a number of dwelling units and/or commercial uses. Under PUD, the development plan may cluster single-family homes, town houses, and apartments along with community facilities and commercial land uses in any pattern that is considered to be the most efficient and the best suited to preserve the natural landscape.

The Village Bylaws identifies one PUD, the Equinox Historic District. This district has been established to preserve the unique historic and architectural qualities of the Village center while enhancing its vitality and livability. The district consists of a variety of uses, including retail, office, personal-service, tourist oriented lodging and associated facilities (including a convention center), and residential uses. The development plan is an effective and unified treatment of the development possibilities of the project site, and makes appropriate provision for preserving the Village center's historic and architectural qualities.

Map 5-2 shows the location of each of the several zoning districts, with Rural Residential-3 being the most substantial. Each district is described in the following sections.

5.5 Major Development Projects

Major residential development projects include new developments and expansions of existing developments by five family dwelling units or more, or five or more lots for single-family dwelling units, and any residential project with an improved road of greater than 400 feet. These projects should be subject to a review procedure for growth management and for compliance with other goals and policies of this Plan. Consideration should be given to time phasing of projects when there is an undue impact on municipal services and facilities. Development timing should also be consistent with scheduled municipal capital investments and services.

Policies for Major Development:

1. Before any major development occurs, a road system capable of handling traffic in a safe and efficient manner must either exist or be planned for immediate construction.
2. Where provided in the Zoning Bylaw, the clustering of single-family homes may be used to protect open lands and natural resources. While the Zoning Bylaw provides a minimum

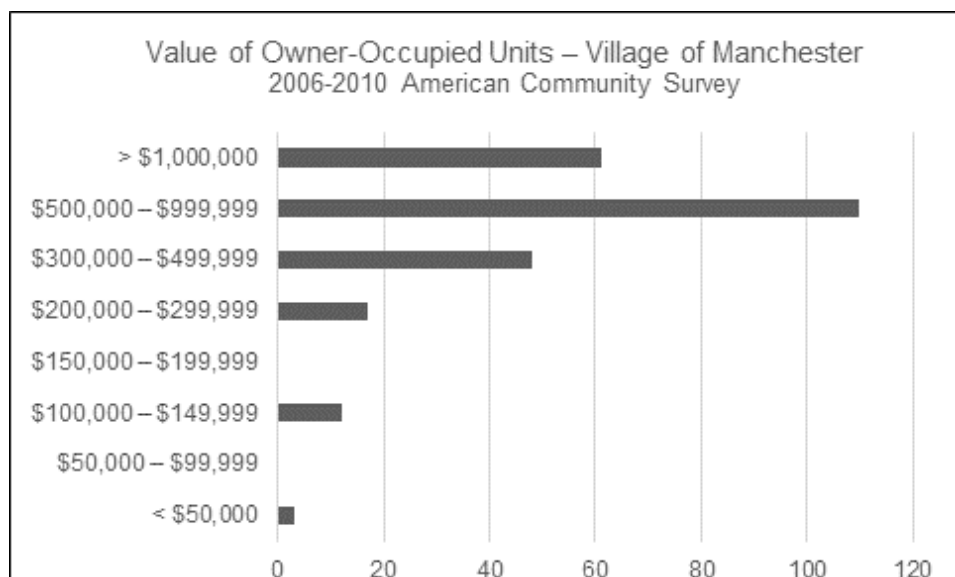
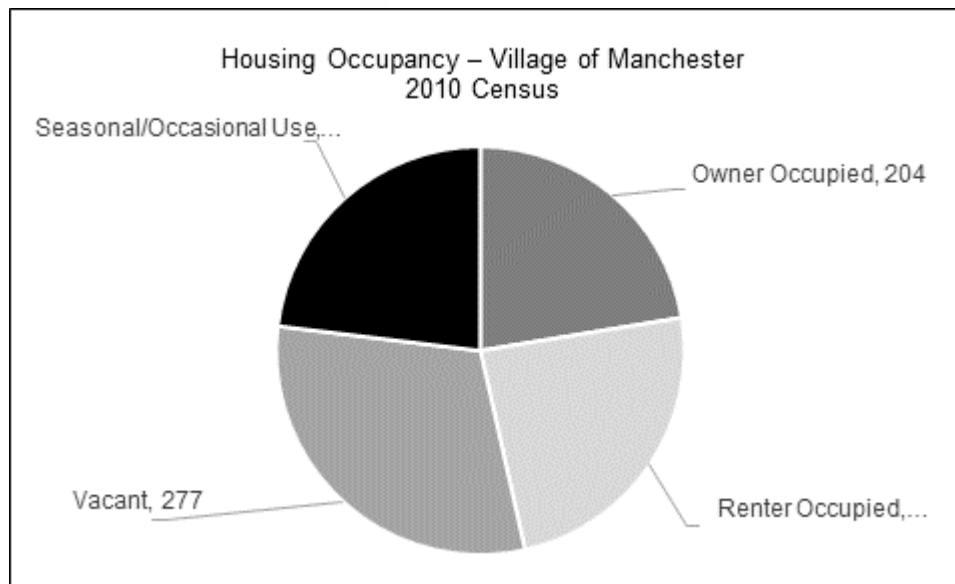
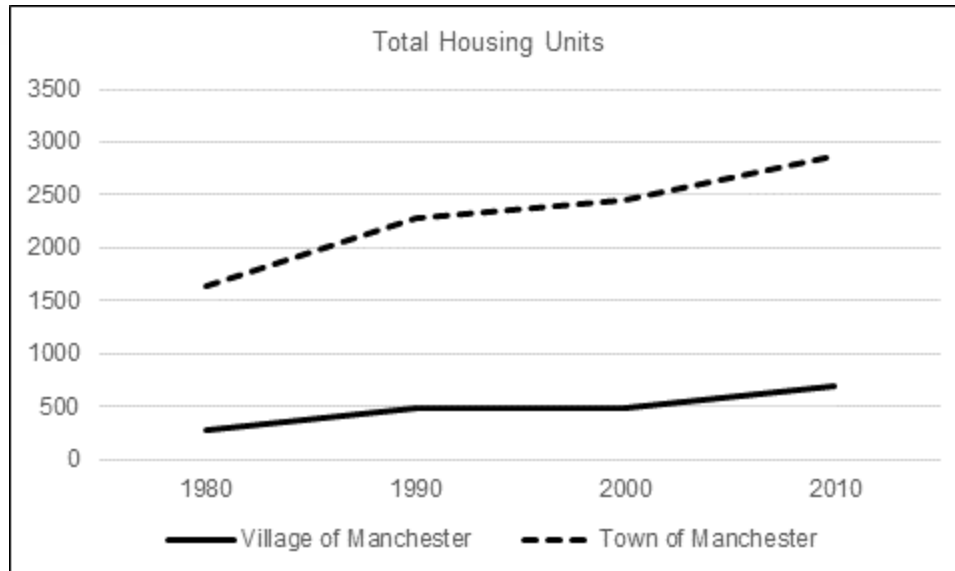
general standard for density based on gross acreage, the density of major development projects should be based on net density. That is, net density factors out lands not suitable for development such as: steep slopes, wetlands, major drainage ways, flood plains, and poor soils. The remaining net acreage is then divided by the minimum lot area applicable to the zoning district.

5.6 Residential Development

The 2010 Census indicated a total of 700 housing units in the Village of Manchester. Of the 700 units, 210 (30.0%) are classified as seasonal, recreational, or occasional use; 423 are occupied (60.4%) all the time.

Housing vacancy rates provide a measure of the degree of choice within the housing market. Vacancy rates are calculated as a percentage of the total number of units for sale or rent. A rate of 4%-4.5% suggests a healthy housing market. A lower vacancy rate correlates to tight market conditions, with high demand for a limited number of housing units. The 2010 Census provides a homeowner and rental vacancy rate. The homeowner vacancy rate in the Village of Manchester is 5.1%, 3.3% in the Town of Manchester, and 2.3% in Bennington County. Single family homes (one unit detached) represents the largest type of housing at an estimated 350 units, based on the 2006-2010 American Community Survey 5-Year Estimates. According to the Vermont Housing Finance Agency and US Census, the median home value in the Village of Manchester is \$627,900, the highest in Bennington County. Additionally, the median rent is \$772. Median family incomes are \$134,063, also the highest in the county.

An often-overlooked component of housing costs are utility expenses for heating and cooling. Weatherizing homes, especially historic homes, can deliver significant savings from reduced monthly bills. Home weatherization provides the additional benefit of improving overall housing quality, comfort and value. The application of smart technologies and upgrading oil-based heating systems to high-efficiency cold climate heat pumps or wood heat stoves can deliver further savings. The price of fossil fuels, which are imported into the state, are historically variable compared with the price of electricity and wood heat products, which can be produced in-state.



Planning for the use of the existing larger single-family dwellings may pose a problem for the Village and its residents. The architectural appearance of these structures and landscaping of these dwellings contributes significantly to the character of the Village. The Village would be best served by having the use and appearance of these buildings maintained. Residential use along Route 7A is favored over business, commercial, or other nonresidential uses.

To provide continued protection of the Village's open, historic, and low-density settlement pattern, the existing predominant Rural Residential zoning should be maintained. While the Village Plan provides for variable land use districts and densities, the predominant residential classification is three acres to as much as five acres per dwelling unit. Cluster development may be permitted in Rural Residential Districts. By allowing smaller lots, such clustering of single-family homes should better protect open space, fragile areas, natural resources, and provide more efficient use of public facilities and services.

The Equinox and Ekwanok Golf Courses are important community assets, which should be preserved for open space and recreation. North of Union Street, clustered housing has been successfully incorporated into the fringes of the Equinox Golf Course. Such development exemplifies a well-designed compromise between providing orderly housing growth and protecting the Village's character.

The Batten Kill is another significant community resource that requires careful protection. Although slopes, wetlands, and flood prone areas provide some natural limitations for development along the river, further zoning restrictions will ensure preservation of this valuable area. Housing development should not be permitted on lands designated Forest along the western boundaries of the Village, which lands include the area surrounding Equinox Pond.

5.7 Affordable Housing

The State of Vermont has identified the need for affordable housing as a central goal for local, regional, and state planning efforts. It is important that good quality housing, for purchase or rent, be available in a variety of types and price ranges. People need to be able to have sufficient income to pay housing costs, as well as food, clothing, transportation, and other necessities. One measure often used to assess housing affordability for residents of a community is the number of families paying over 30% of their income toward housing costs. In the Village, 24.7% of homeowners and 35.9% of renters pay greater than 30% of their incomes toward housing costs. These are not the lowest percentages in the county, but are among the lowest.

Even though the majority of homeowners and renters in the Village are paying less than 30% of their incomes towards housing costs, it is still important to provide affordable housing to residents in need. Though, providing affordable housing in the Village is difficult due to the high cost of property.

The Meadows Project provides subsidized housing for income eligible households. Shires Housing is a nonprofit organization that has developed quality and perpetually affordable housing, with emphasis on housing for people in the local workforce. Shires Housing currently owns 225 rental units in Bennington County, 36 are in the Town of Manchester. Habitat for Humanity also has a regional division that develops housing for area residents. Other organizations that support affordable housing include the Vermont Housing and Conservation Board, Vermont Housing and Finance Agency, Vermont Community Loan Fund, Housing Vermont, NeighborWorks of Western Vermont, Bennington Rutland Opportunity Council, and other local businesses and non-profits with similar missions.

5.8 Special Needs Housing

The population of elderly residents has been increasing and with them the demand for safe and convenient senior housing facilities and services. The median age of Village residents is 52.0 and is among the highest in the State. The median age in Vermont is 37.7 and in Bennington County is 40.3.

To accommodate the increase in older residents, Equinox Terrace, a community care home for seniors, is located in the Village of Manchester. The facility was constructed in 1986 and is licensed for 76 rooms/beds. The facility is located approximately one mile from the Village center on Meadow Lane and provides assisted living care and services, Alzheimer's, Dementia, and memory care services, health care services, and offers long-term and short-term stays. Equinox Terrace offers private living apartments with staff available at all hours. With the aging population in the region, this is an important facility for the Village to have.

Purpose of Residential Districts:

- * To provide housing opportunities for residents of the Village.
- * To provide a variety of residential districts and densities to preserve, as much as possible, the original settlement pattern (i.e., 1, 2, 3, 5 acres per dwelling unit).
- * To control development of a variety of residences and densities.
- * To encourage development in areas where public utilities and improvements may be efficiently installed and maintained.
- * To control the density of development in other areas which permit the permanent use of private on-site sewage disposal and private water supplies.
- * To maintain and enhance the scenic and environmental qualities and to encourage the preservation of adequate open space.

Policies for Residential Districts:

1. Provide for housing development consistent with the existing development pattern.
2. Planned Unit Development and Clustering may be recognized in some cases as a means of promoting the most appropriate use of land, facilitating the economical provision of streets and utilities, and enhancing environmental quality through better preservation of open space.
3. The BCRC and the Village of Manchester should work with Shires Housing, other public and non-profit housing organizations, and private developers to identify housing needs and develop an adequate supply of quality housing that is affordable to residents of the community and to potential members of the workforce who are seeking housing in the area.

Purpose of Rural Residential Districts (RR-1, RR-2, RR-3, RR-5):

- * To preserve the natural, rural, and scenic qualities of areas planned to be predominantly residential.
- * To provide housing at densities that minimize the impact on, or need for, municipal services.
- * To maintain the historic settlement pattern of the Village.

Policies for Rural Residential Districts:

1. The basic lot area in all rural residential districts is three or five acres per family dwelling unit.
2. In RR-2 districts, a minimum lot area of two acres per family dwelling unit may be permitted where the lot is connected to public water and sewer systems. Two acres per family dwelling unit is also permitted where an adequate, on-site, potable water source is available; the sanitary sewage disposal facilities comply with the provisions of the applicable Town of Manchester and State of Vermont Sanitary Codes, and where seasonal water tables will not adversely affect proper sewage disposal.
3. In the portion of the RR-1 district that includes the Equinox Golf Course, dwelling unit density may be increased to not over one family dwelling unit per 60,000 square feet of developable tract area, provided the golf course is maintained as an operating course, and no part of the course is developed with buildings. In order to insure the maintenance of those provisions, development rights of the Equinox Golf Course have been deeded to the Village.

Purpose of Village Residential Districts (VR):

- * To provide a limited area for compact residential development for one and two-family dwelling units in areas served by public water supply and public sewer systems.
- * Suitable Village Residential Districts in the Village center include Seminary Avenue, along portions of Williams Street and Dillingham Avenue, and along West Road between Shepherds Lane and Dillingham Avenue, and Batten Kill Lane.

Policies for Village Residential Districts:

1. The minimum lot area for single-family dwelling units is 15,000 square feet, provided the lot has both public water and sewer hookups available and utilized.
2. In the case of two-family dwelling units, the minimum lot area is 10,000 square feet per family dwelling provided the lot has both public water and sewer hookups available and utilized.
3. For any family dwelling unit connected to either public water or sewer, but not both, the minimum lot size is 30,000 square feet per family dwelling unit.
4. For any family dwelling unit connected to neither public water nor sewer, the minimum lot size is 40,000 square feet per family dwelling unit.

Purpose of Multi-Family Residential Districts (MR):

- * To provide and control locations for public and private schools, apartment buildings, town houses, congregate housing and similar group housing in planned development projects with integrated design serviced by public water and public sewer systems.
- * To control the appropriate use of land; to ensure economical provision of streets and utilities; and to secure the best possible environment for multiple family dwellings.

Policies for Multi-Family Residential Districts:

1. Multi-family dwelling structures shall consist of not more than six family dwelling units.
2. For family dwelling units connected to both a public sewer and a public water supply, the minimum lot area is 10,000 square feet per family dwelling unit.
3. For any family dwelling units connected to either public water or sewer, but not both, the minimum lot size is 20,000 square feet per family dwelling unit.
4. For any family dwelling unit connected to neither public water nor sewer, the minimum lot size is 40,000 square feet per family dwelling unit.
5. A public or private school may be located on a lot having a minimum of 20 acres.

6. Congregate housing projects, which provide extended services to elderly and disabled residents, who may require more services than are available in independent dwelling units, shall not be treated as separate dwelling units under the zoning bylaw. If connected to both public water and public sewer, they shall contain at least 2,000 sq. ft. of lot area per bedroom.

5.9 Business Development

The Village business districts encompass both sides of Main Street (Route 7A), from north of Union Street and the Equinox Historic District to the Village/Town boundary.

In addition to businesses and professional offices, the district contains several single-family homes, apartments, and multi-family dwelling units. These residences are interspersed among the district's businesses, which include professional offices, retail stores, restaurants, inns, Orvis Company, and art and furniture galleries.

The scope and composition of the business district complements the overall character of the Village. Structures are generally small, of traditional design and well landscaped. The district's blend of business and residential uses reinforces the Village's identity as a resort and residential area, and must be protected and maintained. Low intensity businesses that generate minimal traffic shall be encouraged, along with continuing residential use of some properties. Desirable businesses include professional offices, small retail specialty shops, and lodging facilities.

5.9.1 BUSINESS-1

Purpose of Business-1 District:

- * To ensure that further business development is compatible with the present scale and character of the Village.
- * To control the best use of land in areas most appropriate for locating suitable business establishments.
- * To discourage large retail stores, shopping complexes, any business involving the manufacture or assembly of large or heavy goods, or any other business activity that is not compatible with the present scale and character of the Village.

Policies for Business-1 District:

1. Any change in property use is conditional and shall be generally limited to business, professional, and lodging facility uses.
2. Business uses, which generate increased traffic congestion, cross street traffic, and frequent turning movements, must be limited.
3. Projects that cause an undue impact on existing public services and facilities shall be discouraged, unless adequate provisions to correct such deficiencies are provided by the developer/applicant.
4. Combined access and shared parking shall be encouraged in cases where such use results in improved efficiency of land use and preservation and integration of open space.
5. Parking areas should be well screened from streets and adjoining properties, and should be located behind the required building setback. Parking shall be to the rear of buildings, whenever possible and feasible.
6. The small scale of buildings should be retained.
7. Historic buildings of state and national significance should be preserved and protected. New development must be compatible with the applicable Design Control District's goals and policies.

8. Significant natural or topographic land features are to be retained. Care should be taken to preserve openness and scenic views.
9. Signs shall be closely controlled.

5.9.2 BUSINESS-2

Purpose of the Business-2 District:

- * To establish a defined area for those retail establishments providing necessary services to the community and to ensure that such businesses are able to continue to provide their important services. A supermarket is a self-service retail food market primarily selling foods, but also selling other convenience and household merchandise as less than 50% of total sales.
- * To minimize the adverse impacts of heavy vehicular traffic, by concentrating it in this designated portion of the Village, and by designing access that promotes the smooth flow of such traffic.

Policies for the Business-2 District:

1. Projects that cause an undue impact on existing public services and facilities shall be discouraged, unless adequate provisions to correct such deficiencies are provided by the developer/applicant.
2. Combined access and shared parking shall be encouraged in cases where such use results in improved efficiency of land use and integration of open space.
3. Parking areas shall be well screened from streets and adjoining properties.
4. Parking areas should be designed to avoid the perception of large expanses of paved area.
5. The amount of required open space/green space may be less than in the Business-1 District, but shall be intensively landscaped.

5.10 Major Development Review

In both the Business-1 and Business-2 Districts, the Zoning Bylaw shall provide for detailed Planning and Zoning review, with specific criteria designed to implement the policies, goals, and purposes of this Plan, in the case of major developments. The Bylaw shall define major developments to include all projects that have the potential to adversely affect the character of the Village, or the policies, goals, and purposes of this Plan. Major developments may also be treated as conditional uses to insure a more thorough review by the appropriate municipal panel, or another zoning device could be used to accomplish this purpose.

5.11 Equinox Historic District

In 1769, less than ten years after Manchester was established, the first hotel was built on the site of the Equinox House. During the following 200 years, the site served as the focal point of the Village and set the tone of the community. This is still true today and hence, the future character of the Village is inextricably tied to the quality of development on the Equinox site.

The Equinox complex should be treated separately from other areas in the Village. The complex plays a critical role in defining the Village's character, and the structures make up a unique historic asset of statewide significance.

Purpose of the Equinox Historic District:

- * To encourage cohesive Planned Unit Development (PUD) of the Equinox complex which addresses the site as a whole. The PUD permits a mixture of uses, thereby allowing the adaptive re-use of the historic buildings and encouraging an integrated community with innovation in historic design, adaptation, and layout. Resulting in a more efficient use of land. The PUD

approach permits both flexibility on the part of the developer to propose a project meeting the confines of the existing buildings, and flexibility on the part of the Village to impose a broad range of conditions to protect its interests.

Policies for the Equinox Historic District:

1. Development within the District must proceed in accordance with an overall development plan (PUD).
2. Development must be designed and landscaped to minimize any adverse effects on neighboring properties.
3. Land uses must be arranged so as to be compatible and ensure visual and aural privacy for residents of the project and neighboring properties.
4. The development plan shall make appropriate provision for preservation of unique historic and architectural qualities of the Village center.
5. The overall residential density shall be no greater than 3 dwelling units per acre. This requirement may be met by the preservation of open, cluster land, which may or may not be contiguous with the project parcel, so long as the open land is within the Village and is not within the Forest District.
6. Maximum building coverage shall be 15%.
7. Retail trade establishments shall contain a maximum of 2,000 square feet of total area for a one-story building, and a maximum of 3,000 square feet total in a 1-1/2 or 2-story building.
8. At least half of the PUD should be open space (vegetative green space, including ponds or lakes).
9. Equinox Master Plan: To further the objectives of the Equinox PUD District, a master plan of the property shall be updated and revised as individual projects and improvements proceed. The master plan will provide an overall context of project proposals. The most recently approved master plan shall be placed on file with the Administrative Officer.

5.12 Design Control District

The Design Control District encompasses the entire Village. To facilitate design control, the Design Control District is divided into three sub-districts (Historic Core District, Preservation District, and General Review District), each having different, but related, guidelines and criteria. The Design Control District can be seen in Map 5-3.

5.12.1 Historic Core District

The Historic Core District is the most restrictive sub-district. This district is defined as those lots, which may or may not be contiguous, that contain historic structures. For the purposes of design control, historic structures are structures, or portions of structures that pre-date 1925 and may or may not be listed on the National Register of Historic Places and the Equinox Historic District.

5.12.2 Preservation District

The Preservation District is the next most restrictive sub-district and has its own design criteria and guidelines. This district is defined as all lands that are within 300 feet of the center of the right-of-way on all through roads and streets in the Village. In many cases the Preservation District overlaps the lots that make up the Historic Core District. For these cases the more restrictive design guidelines and criteria will apply.

5.12.3 General Review District

The General Review District is the least restrictive sub-district. This district is defined as those lots in the Village of Manchester that are not contained in either the Historic Core District or the Preservation District.

Purpose of the Design Control District:

- * Provision of appropriate design criteria ensures that future development, alterations, or repairs, will preserve our historic structures and scenic streetscapes, and be compatible with the Village Plan of Development. The Design Control District, and its related sub-districts, affects the preservation of historic structures, and the visual appearance of structures, their relationship to each other, and to the area.

Policies for the Design Control District:

1. Within the Historic Core District it is the intent of this plan to prevent the demolition, or relocation (except to remedy a dangerous situation) of structures, or parts thereof, predating 1945. Additions, alterations, or repairs to structures within the Historic Core District must preserve or restore architectural detail to preserve the historic character of the structure.
2. Within the Historic Core District and Preservation District the following policies apply:
 - a. The size, shape, and massing of structures shall be consistent with the lot size and with neighboring structures.
 - b. Houses shall be arranged with respect to neighboring structures, streets, and roads to maintain the aesthetics, environment, and appearance of the late 19th and early 20th century village.
 - c. Design shall be compatible with the surrounding area, and should be appropriate for a traditional late 19th and early 20th century village.
 - d. Building exteriors shall be compatible with traditional Village of Manchester structures.
3. Within the Preservation District there are historic buildings and districts, such as "Pill Alley," or "Doctor's Row," at the southern portion of West Road, where it joins Seminary Road, that may be less significant than those in the Historic Core, but should nonetheless be protected. Every effort shall be made to maintain and retain pre-1925 structures.
4. The General Review District standards include those that follow for the entire Village Design Control District. However, existing historic structures in the District will be reviewed with other applicable policies in the other two Districts.
5. For the entire Village Design Control District the following policies apply:
 - a. Site plans and arrangements of facilities shall not be in conflict with adjoining uses of land.
 - b. Roads, streets, and driveways shall be designed to follow natural contours of the land.
 - c. Design, size, location, lighting, and other aspects of signs shall be closely controlled.
 - d. Landscaping and lighting shall be compatible with the surrounding area and must be appropriate for the particular design control sub-district.

5.13 Flood Hazard Area District

Areas subject to periodic flooding are identified by the Vermont Department of Water Resources, and can be seen in the Surface Water Resources and Flood Hazard Areas Map in the Flood Resilience section. These areas include the shoreline of the Batten Kill and low-lying land associated with the Batten Kill's tributaries.

Purpose of Flood Hazard Area District:

- * To minimize hazards from flooding, erosion, and sedimentation.
- * To maintain the capacity of stream channels to carry excess floodwater and sediment.
- * To protect the recharge and water storage benefits of streams as they relate to flooding, and to protect streams as wildlife habitats.
- * To minimize potential threats against life and property.

Policies for the Flood Hazard Area District:

1. No building shall be erected, altered, or moved within the flood hazard areas.
2. Suitable uses within flood hazard areas include agriculture and forestry, non-intensive outdoor recreation, activities connected with conservation and wildlife propagation, and flood control projects.
3. Intensive recreation uses should be restricted from fragile areas.
4. Vegetation shall be maintained for at least 50 feet back from the stream banks.

5.14 Forest Districts

Two of the three Forest Districts in the Village surround former public water reservoirs; the third encompasses lands associated with the Southern Vermont Art Center.

Purpose of Forest Districts:

- * To preserve lands for their natural resource value and appropriate recreational uses suited to the natural environment.
- * To provide peaceful settings for outdoor recreation.
- * To protect water quality through careful forest management and use of land.

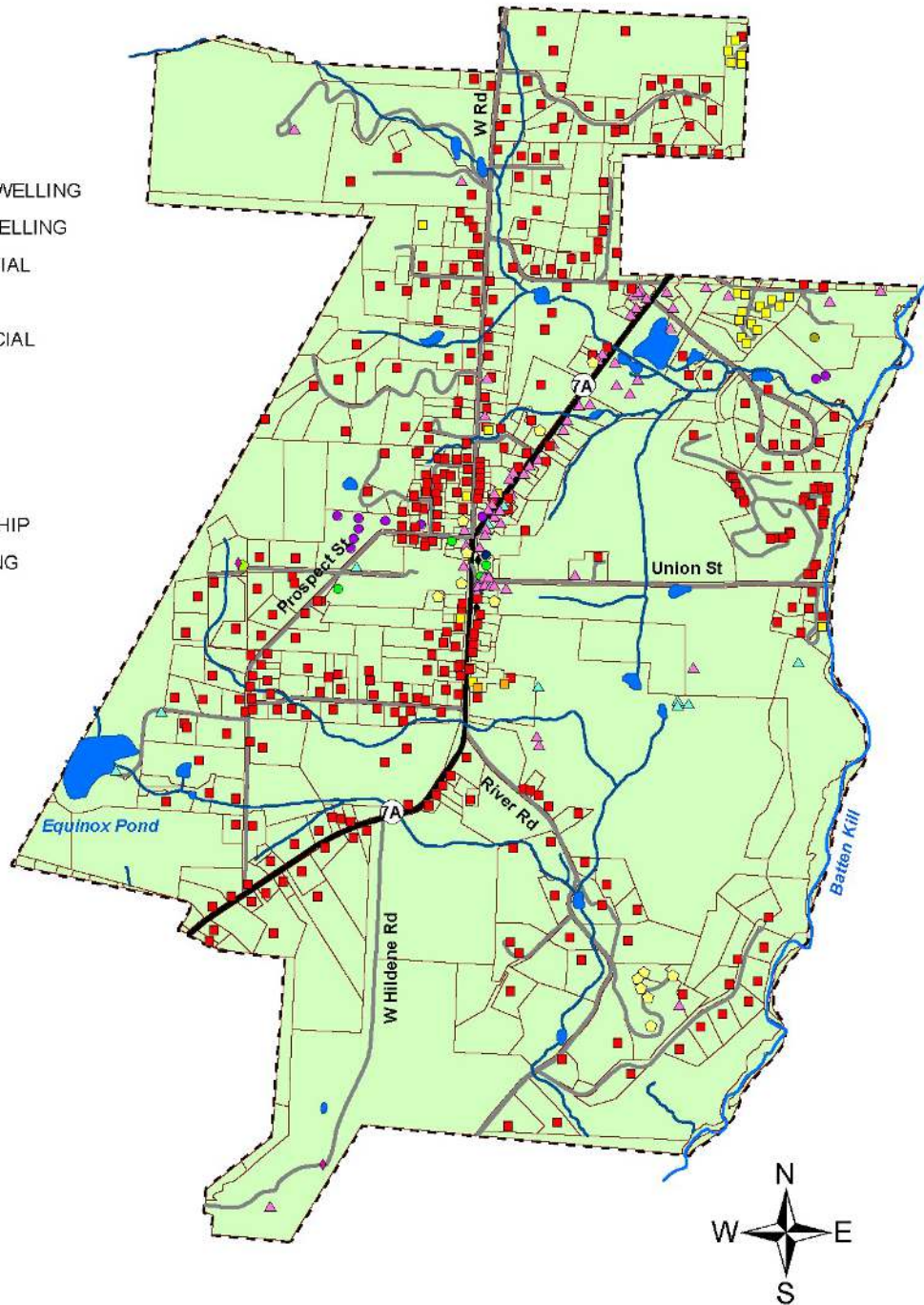
Policies for the Forest Districts:

1. Sustained or year-round residential uses and permanent improvements supporting such uses are not permitted on forestlands.
2. Allow for recreational uses which do not create impacts such as noise, odor or smoke.
3. Provide for appropriate educational, demonstration, and research related uses which support forestry management.
4. Motorized forms of recreation shall be prohibited in the Forest District.

Map 5-1 Development

SITE TYPE

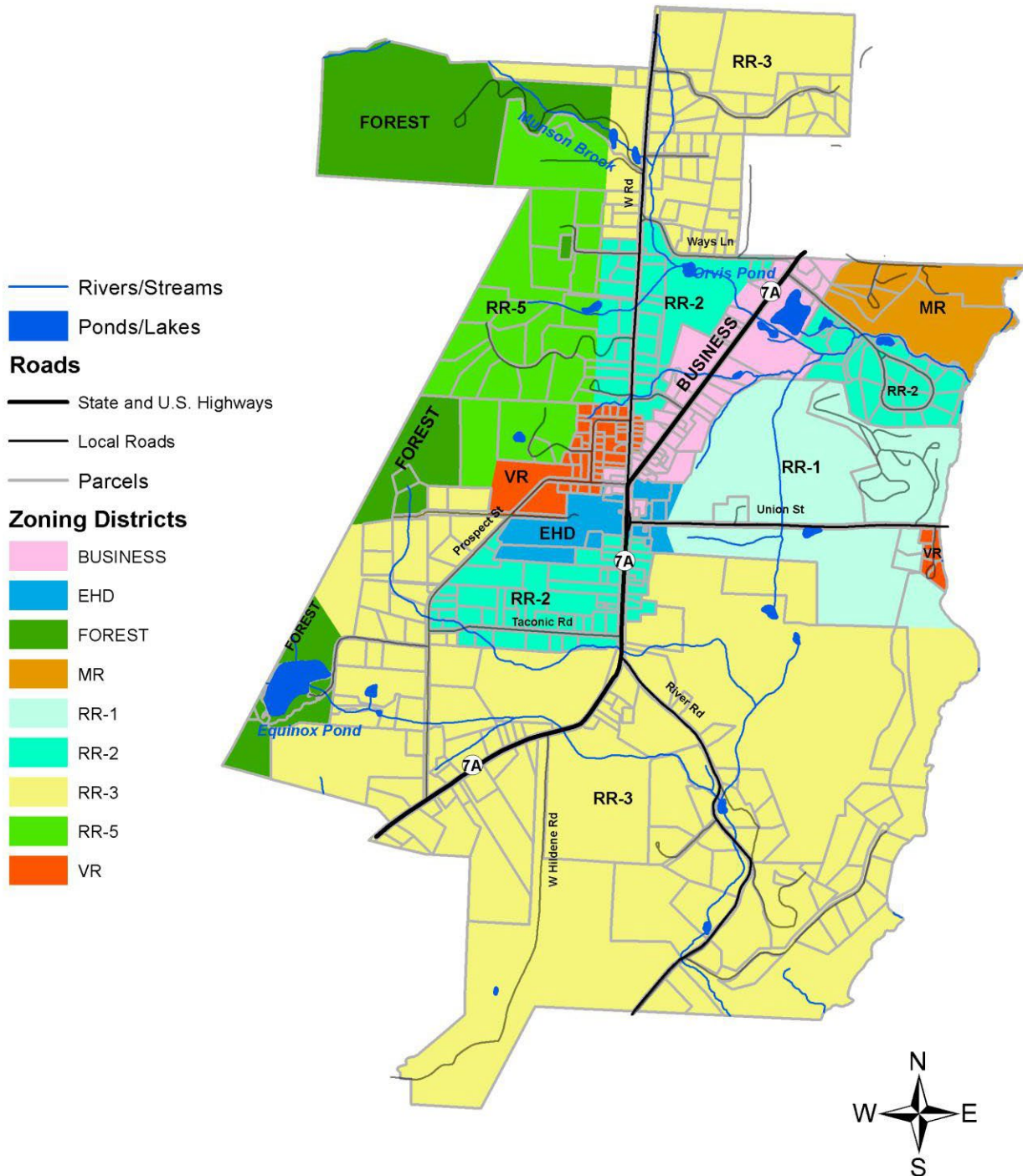
- SINGLE FAMILY DWELLING
- MULTI-FAMILY DWELLING
- OTHER RESIDENTIAL
- ▲ COMMERCIAL
- ▲ OTHER COMMERCIAL
- GOVERNMENT
- FIRE STATION
- HEALTH CLINIC
- EDUCATIONAL
- ◆ HOUSE OF WORSHIP
- ◆ PUBLIC GATHERING
- ◆ LODGING
- ◆ UTILITY



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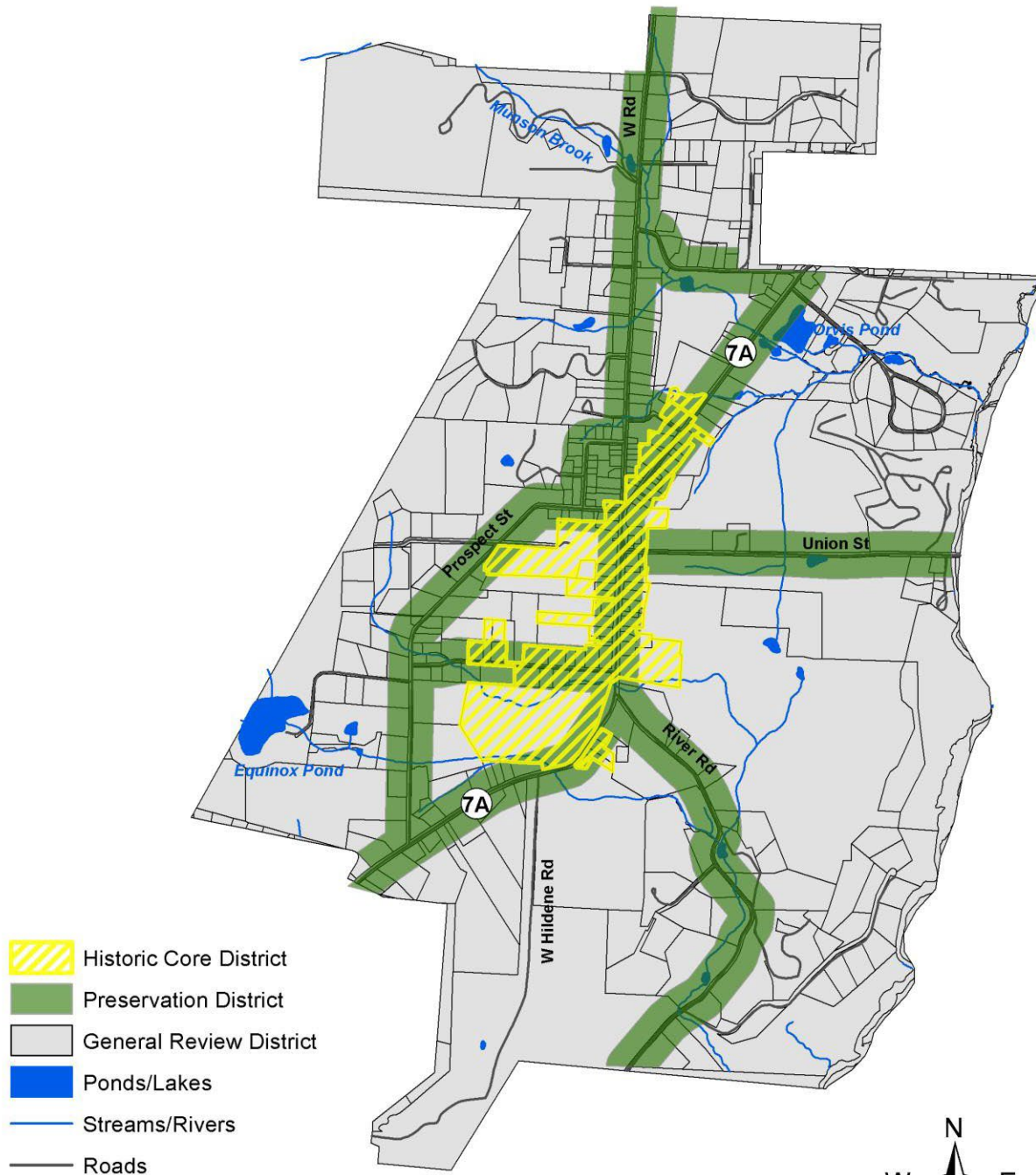
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Map 5-2 Zoning Districts



0 1 2 3 4 5 Miles

Map 5-3 Design Control Districts



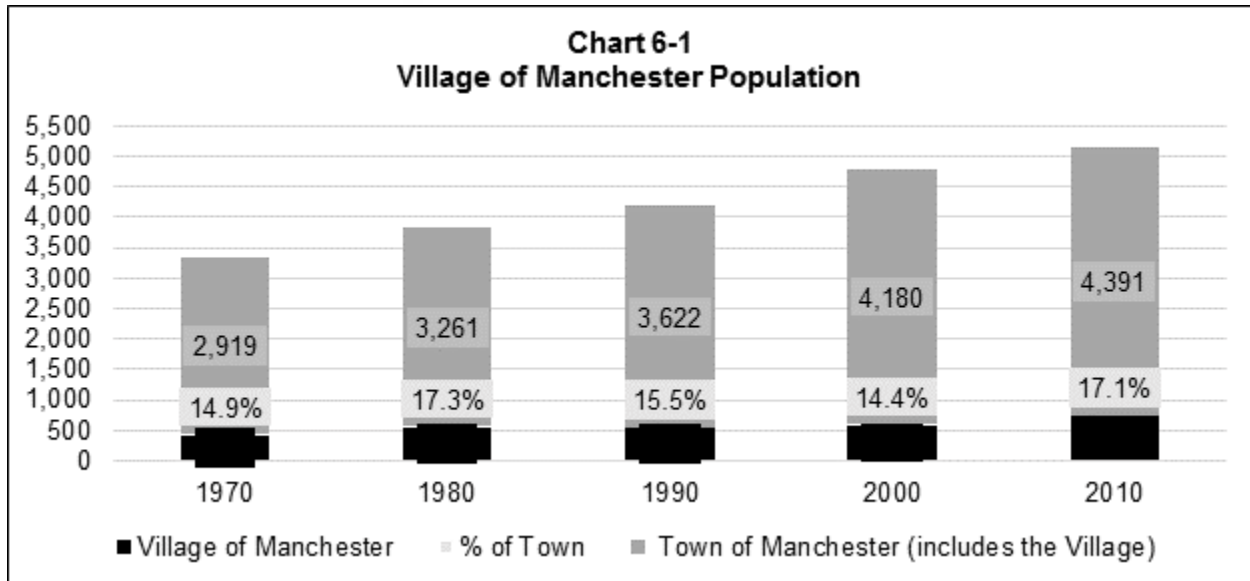
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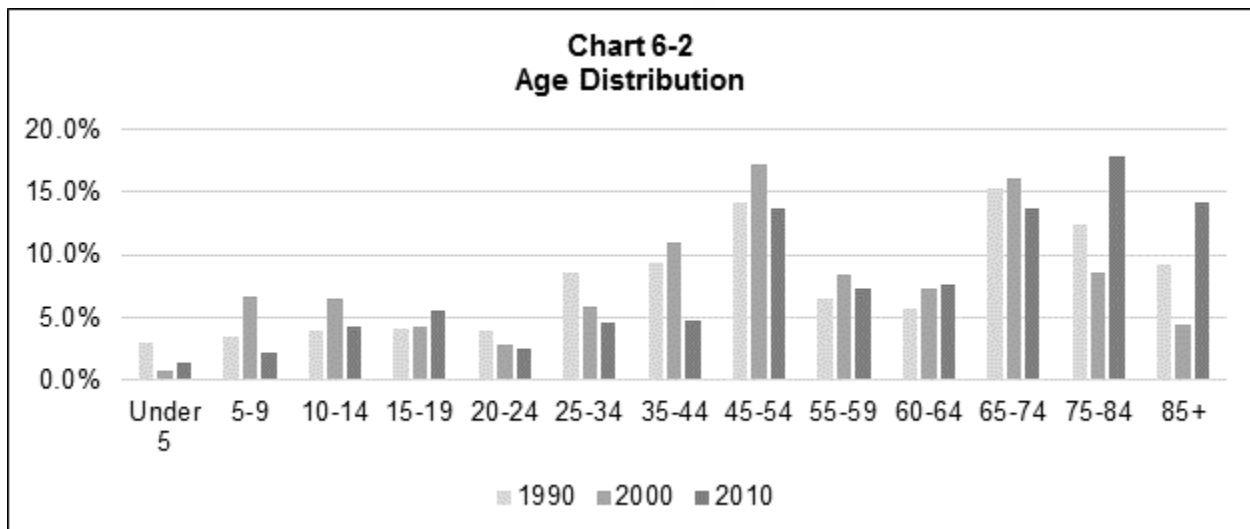
6.0 POPULATION AND ECONOMIC DEVELOPMENT

6.1 Population

In the Village of Manchester, the average rate of population increase per decade from 1970 to 2010 is 18%. The highest growth rate was between 1970 and 1980, at 29.4%. According to the 2010 Census, the total population in the Village is 749 people. It is estimated that 514 of that total are residents and 235 are non-residents. This total represents 147 residents more than what was reported in 2000, resulting in a rate of growth of 24.4% between 2000 and 2010. Chart 6-1 illustrates the Village population as a percentage of the Town. The U.S. Census population estimate for the Village of Manchester in 2013 was 733, a decrease of 2.3% since 2010 (population estimates were not available for the Town).



Source: 2010 Census



Source: 2010 Census

6.2 Economic Development

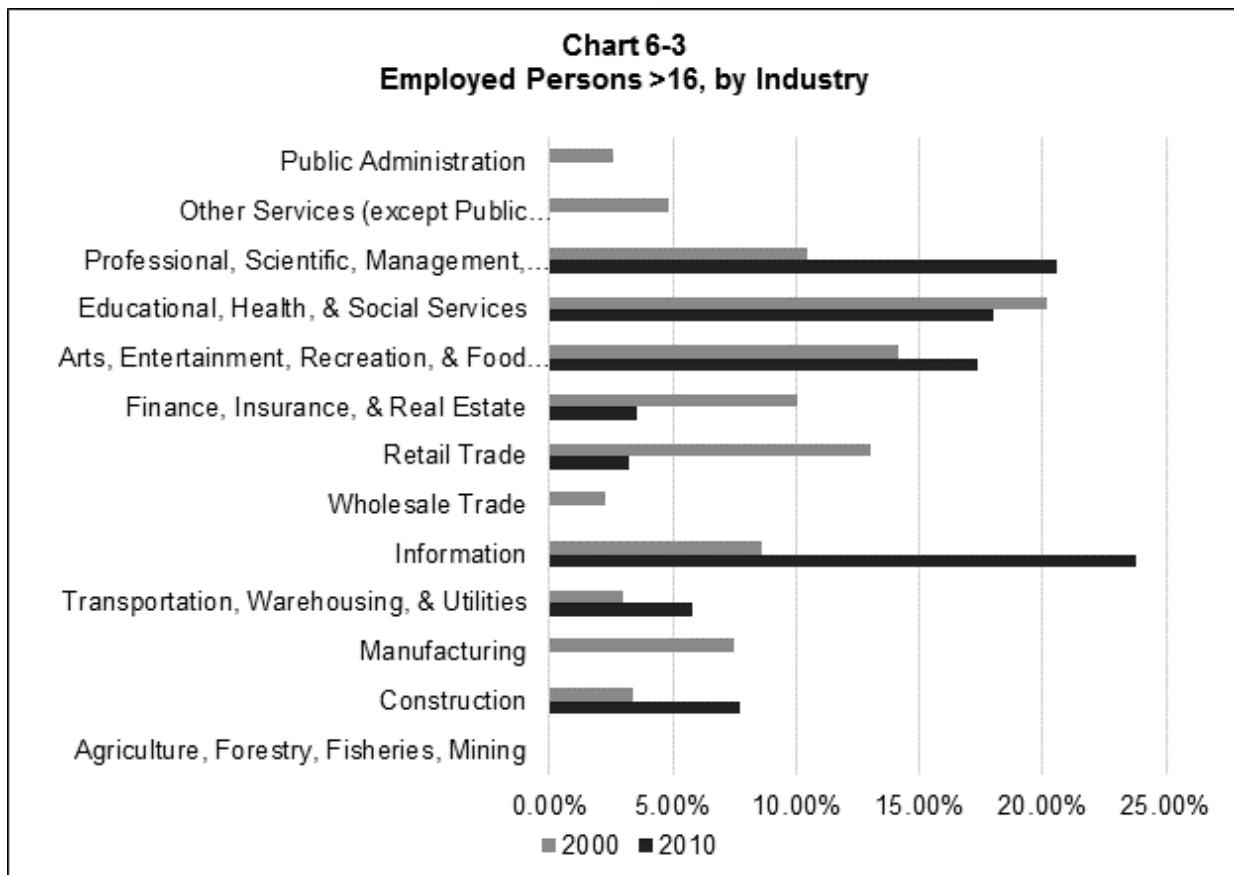
The Village of Manchester is a vibrant and diverse community. Various shops, restaurants, recreational opportunities, and schools are located within the Village boundaries. The Village promotes sound economic development that can blend into the environment, while preserving the

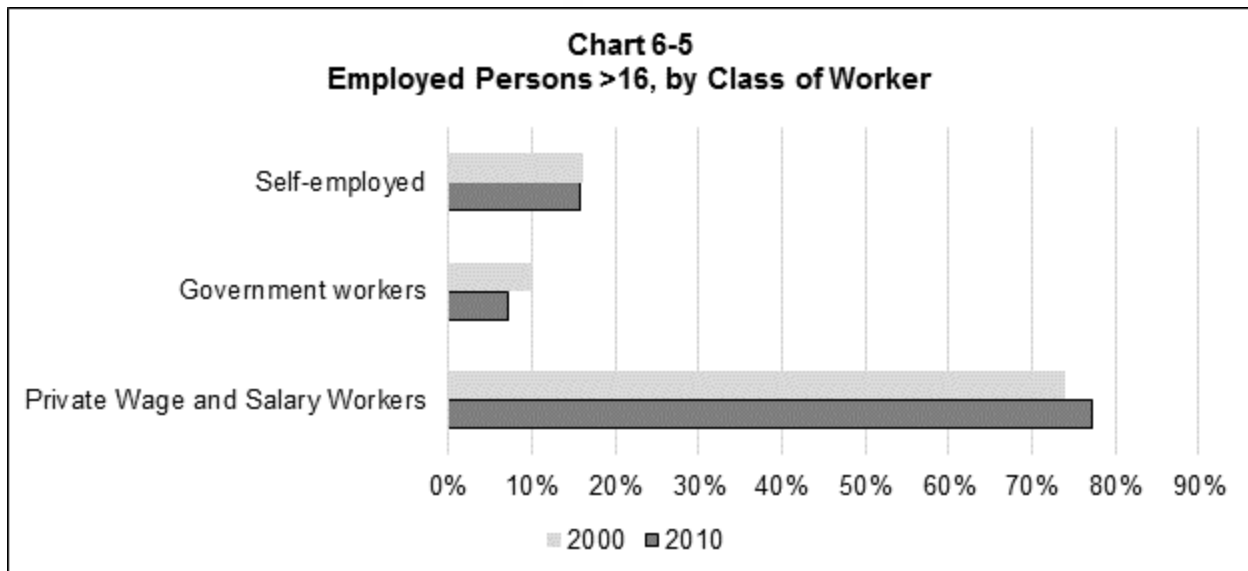
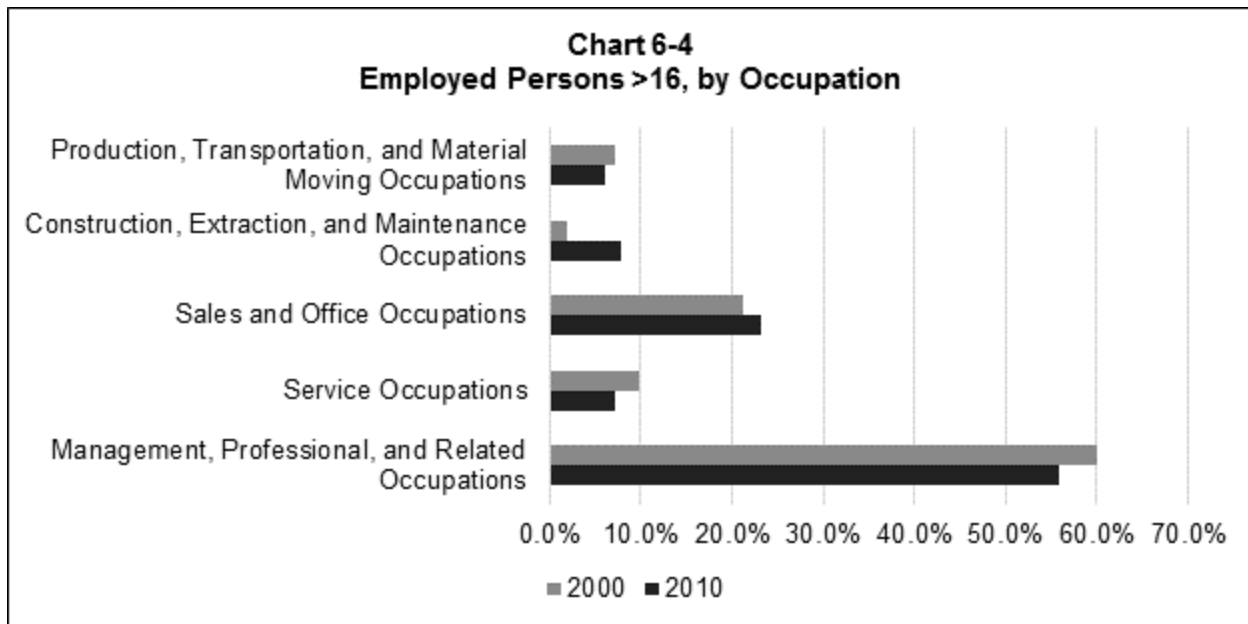
small, rural, and primarily residential community. This is achieved by limiting commercial development to the Village center and the commercial areas north of the Village center along Route 7A.

The Village discourages large retail stores, shopping complexes, and any business involving the manufacture or assembly of large heavy goods. These types of businesses would increase traffic, have an adverse effect on the environment, and detract from the charm of the community and are not compatible with the scale or character in which the Village aims to sustain.

Business ventures supported by the Village involve hospitality, small-scale retail, restaurants, internet-based and home-based businesses. In support of home occupations, the Village zoning bylaws allow residents to use a minor portion of their dwelling for an occupation which is customary in the home, and that does not have an undue adverse effect upon the character of the residential area. Home-based employment and telecommuting is becoming an increasingly popular option with advances in information technology and should continue to be supported by the Village. It is also a priority for the Village to maintain established businesses that have been sources of economic stability in the community.

The major employers in the Village are Orvis, Equinox Hotel, Burr and Burton and Maple Street schools. As can be seen in Chart 6-3, most are employed in information, professional, administrative, educational, health, social services, entertainment, arts, and food service type industries. Chart 6-4 shows that the most dominant occupations are in the management and professional fields and Chart 6-5 shows that almost 80% of the workforce are private wage and salary workers.





6.3 Village Center Designation

Village Center Designation is a program created by the Vermont Agency of Commerce and Community Development that provides tax credits for commercial properties, and priority consideration for state grants and other resources for communities. Through the program's incentives, village center designation helps the Village of Manchester improve the ability of this historic village to attract residents and businesses, enhance livability, maintain a unique sense of place, and expand access to employment, housing, education and other public services.

The purpose of a village center designation is to support revitalization of what exists rather than to support areas of new growth, which is an important goal of the Village. Other goals established in this plan that support village center designation are:

- * Encouraging small businesses;
- * Maintaining traditional neighborhood densities;
- * Ensuring that new buildings and repairs, or alterations to existing buildings, do not detract from the historic appearance of the village;

- * Discouraging businesses that are high traffic, high profile, or detract from the nature of the village and traditional settlement pattern, including strip development; and
- * Preserving the unique and individual characteristics of the village core, including historic structures, historic architecture, architectural details, historic scenic streetscapes, mountain and valley views, and land use patterns.

The Village was first recognized with a designated village center in November 2018. The Village will maintain this designation to keep its associated benefits available to the community.

6.4 Income

According to the Vermont Housing Finance Agency and 2010 U.S. Census, median family incomes in the Village of Manchester are the highest in Bennington County, at \$134,063. In comparison, the median family income in Bennington County is \$61,428.

6.5 Northshire Economic Development

In 2015, work began on the *Northshire Economic Development Strategy and Implementation Plan*. The project focuses on ways to strengthen economic development in Dorset, the Town of Manchester, and the Village of Manchester. By building upon the economic development elements identified in the Town and Village Plans, the Bennington Regional Plan, and other planning efforts, a guide to stimulate economic growth, with a focus on increasing the quantity and improving the quality of the jobs in the region, will be created. Particular attention will be devoted to developing and attracting jobs that allow individuals to both work and live in the three municipalities.

Through this project, community assets will be identified, as well as weaknesses, opportunities and threats. By identifying assets to the community, efforts can be made to strengthen them, which will then serve as the foundation for economic growth and development. Market conditions will also be examined to determine current and future demands for housing, retail, industrial, and commercial uses in the Northshire.

This study is especially important to the region because the majority of those working in the Northshire live elsewhere. According to the 2011 U.S. Census, 3,989 people work in the Northshire, but only 1,022 of them live there. In addition, 974 Northshire residents work outside of the area. With the results of this project, the Northshire can determine how to increase economic growth and encourage workers to live and work in the Northshire.

6.6 Policies for Economic Development:

1. The Village should continue to support new economic activities to provide rewarding jobs and good wages while not adversely impacting the environment or detracting from the charm of the community.
2. Planning and investments should promote growth in the Village and discourage development that would degrade the character.
3. Protect the natural, historic, cultural, and recreational resources that provide an outstanding quality of life for residents.
4. Take into consideration the actions and recommendations in the *Northshire Economic Development Strategy and Implementation Plan* when working with potential developments or businesses.

7.0 HISTORIC PRESERVATION

7.1 Legal Basis for Preservation in the Village of Manchester

The charter of the Village of Manchester was granted by the Vermont legislature in 1943. The charter authorizes the Village "To adopt and enforce within its limits building, police, sanitary, zoning, Village planning, and other similar regulations and ordinances..." The Vermont Municipal and Regional Planning and Development Act (Title 24 VSA, Chapter 117) is the enabling act for planning and implementing bylaws. Among the required elements of a Municipal Plan is a statement of policies on the preservation of historic features and resources. The Vermont Municipal and Regional Planning and Development Act (Title 24 VSA, Chapter 117), enables municipalities to establish design control districts, but also subjects Design Review Boards to the jurisdiction of the Planning Commission or Development Review Board, and requires local governments to take into consideration the historic resources of a Town in preparing the Municipal Plan. Under the provisions of the law, "consideration" means that the community must take an inventory of its historic resources and develop a plan for their protection.

7.2 History of Preservation in the Village of Manchester

The Village of Manchester Historic District was formed in 1984, and seventy-six principal structures and forty-four outbuildings were first listed in the National Register of Historic Places. The Equinox Hotel was placed on the National Register of Historic Places in 1972, and the Equinox Historic District was established in 1986. A survey of historic structures in the Village was compiled by the Vermont Historic Preservation Division. Individual buildings in the Historic District can be seen in Sketch Map 7-1, the boundary of the Historic Sub-District can be seen in Map 7-2. These buildings were evaluated based on a set of criteria designed to determine their significance in American history, architecture, archaeology, engineering and culture. The National Register criteria are as follows:

Criteria: The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:

1. That are associated with events that have made a significant contribution to the broad patterns of our history; or
2. That are associated with the lives of persons significant in our past; or
3. That embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
4. That have yielded, or may be likely to yield, information important in prehistory or history.

7.3 Preservation Procedure

Historic Preservation is a matter of public policy in the Village. The Village of Manchester Planning Commission was established in 1970 and the first Village of Manchester Plan of Development was adopted in 1972. Those actions requiring design review are indicated in the Zoning Bylaws of the Village of Manchester. The Historic Core and Preservation Design Control Sub-Districts reflect a mix of styles of historical and architectural significance. Each of the districts contain a mix of styles, such as "Colonial" or "Victorian," and embody important elements of the Village of Manchester culture and history. Therefore, when considering changes within the districts, not only changes to the structure, but also at the effect those changes will have on the districts as a whole. In the Historic Core Sub-District, design review is guided by the standards developed by the United States Secretary of the Interior (as amended, 1992). Certain houses identified in the Zoning Bylaws, within the Preservation and General Review Sub-Districts, will also be subject to the Secretary of the Interior Standards.

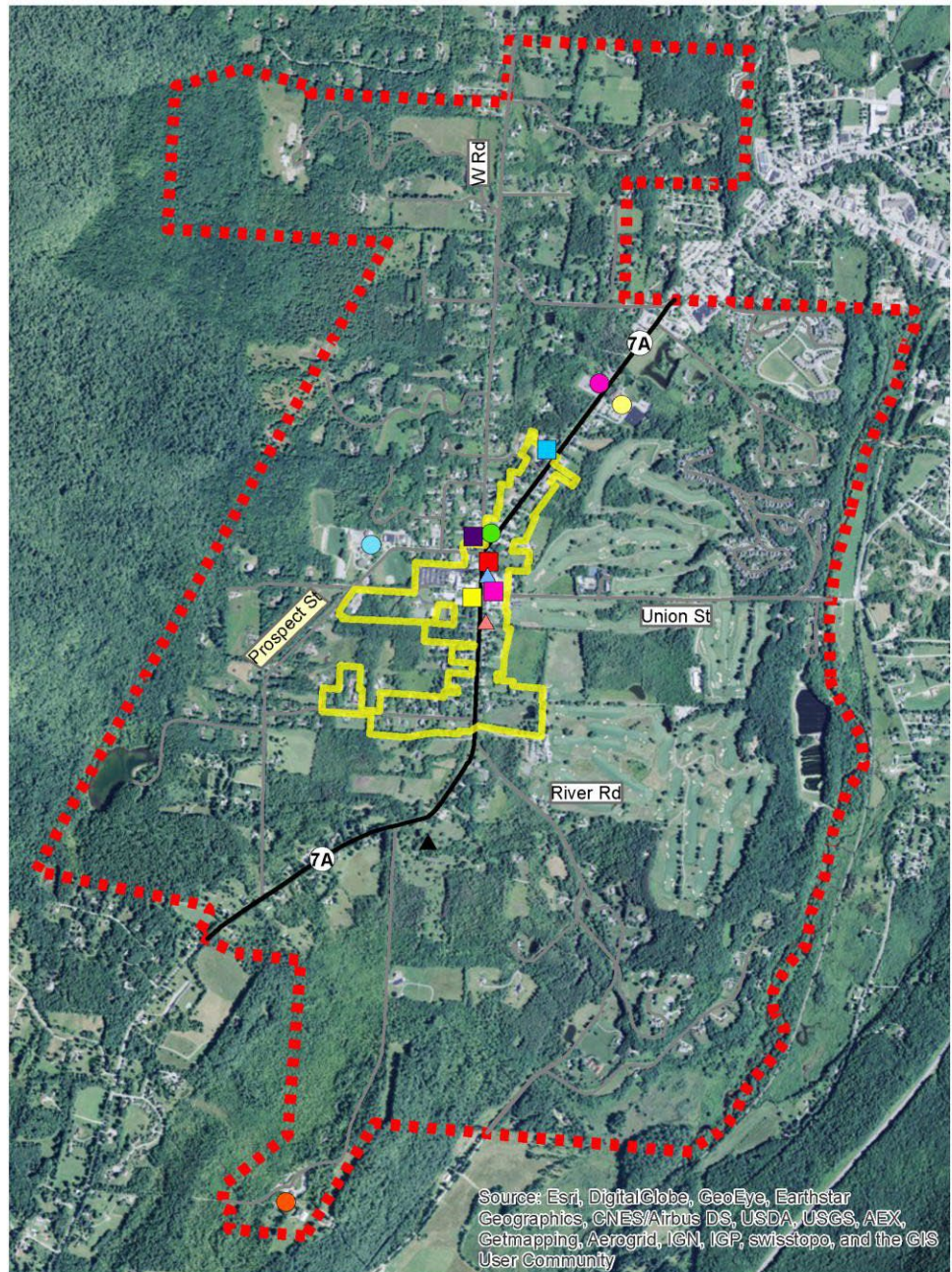
The Design Review Criteria provides a procedure for possible variation from the Secretary's Standards, where necessary. Provisions included in the Secretary's Standards are:

1. A property shall be used for its historic purpose or be placed in a new use that requires minimal change to the defining characteristics of the building and its site and environment.
2. The historic character of a property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.
3. Each property shall be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or architectural elements from other buildings, shall not be undertaken.
4. Most properties change over time; those changes that have acquired historic significance in their own right shall be retained and preserved.
5. Distinctive features, finishes, and construction techniques or examples of craftsmanship that characterize a property shall be preserved.
6. Deteriorated historic features shall be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature shall match the old in design, color, texture, and other visual qualities and, where possible, materials. Replacement of missing features shall be substantiated by documentary and physical evidence, or pictorial evidence.
7. Chemical or physical treatments, such as sandblasting, that cause damage to historic materials shall not be used. The surface cleaning of structures, if appropriate, shall be undertaken using the gentlest means possible.
8. Significant archaeological resources affected by a project shall be protected and preserved. If such resources must be disturbed, mitigation measures shall be undertaken.
9. New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment.
10. New additions and adjacent or related new construction shall be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

The purpose of the Design Review Standards is to see that the exterior of new buildings and exterior changes to existing structures, large scale landscaping and site plan changes (trees, hedges, and earth contour changes) are compatible with and can, therefore, enhance the overall character of the districts.

Map 7-1 Historic District

- Historic District
- 1811 House
- Inns at Equinox
- Marsh Tavern
- Inn at Manchester
- Reluctant Panther Inn
- ▲ Dellwood Cemetary
- ▲ First Congregational Church
- ▲ St. John's Episcopal Chapel
- Hildene
- Mark Skinner Library
- Burr and Burton Academy
- Southern Vermont Arts Center
- Orvis
- Orvis School House



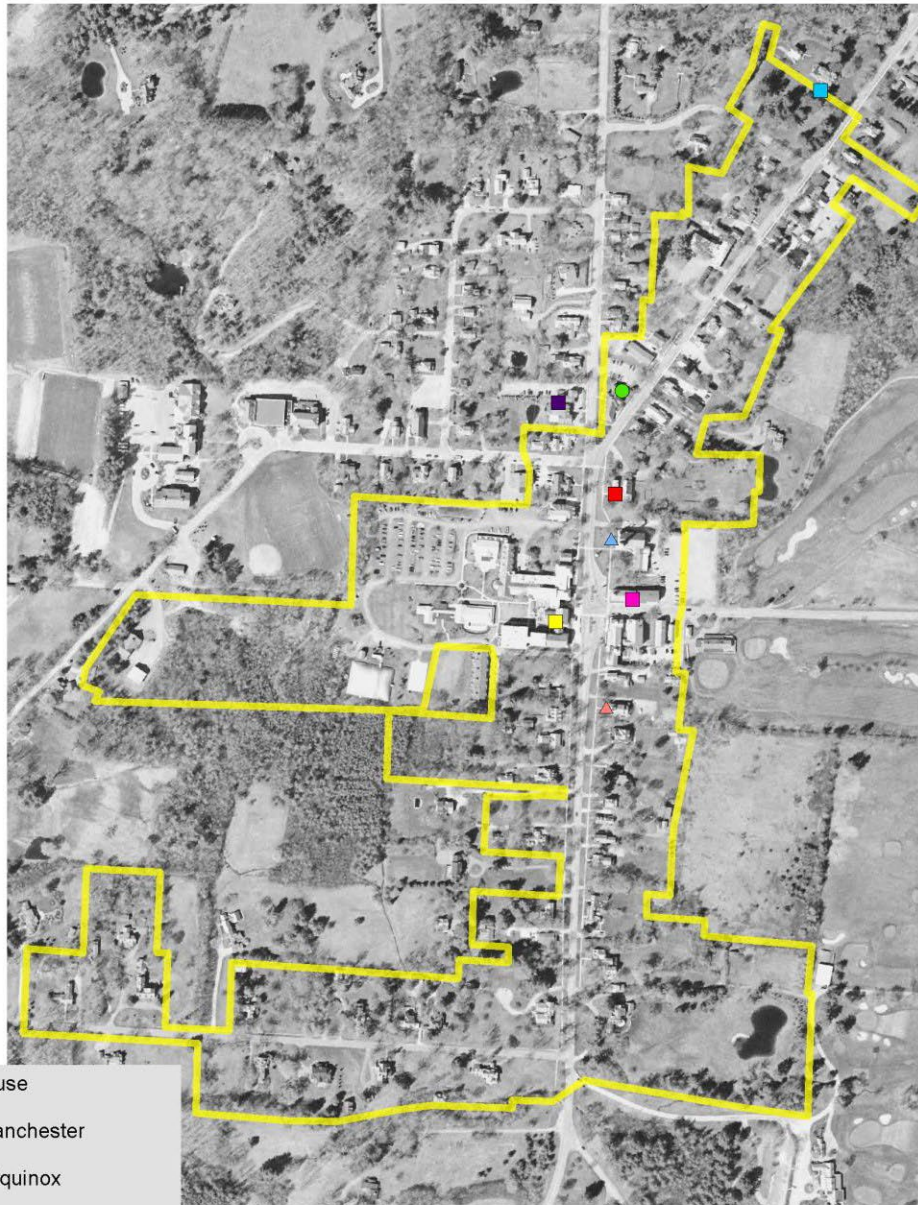
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community



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Map 7-2 Historic District



- 1811 House
- Inn at Manchester
- Inns at Equinox
- Marsh Tavern
- Reluctant Panther Inn
- ▲ First Congregational Church
- ▲ St. John's Episcopal Chapel
- Mark Skinner Library
- Historic District



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8.0 TRANSPORTATION

8.1 Roads Through the Village of Manchester

U.S. Route 7A (Main Street) serves as the primary transportation artery through Manchester, and the principal north-south highway in the western part of the State. A limited access section of Route 7 provides a bypass around the Village, and has relieved some of the congestion that once resulted from larger volumes of through traffic. Historic Main Street (Route 7A) continues to serve the local needs of Village residents and visitors.

West Road and Ways Lane to the north, River Road to the south, the Prospect-Seminary Loop, and Union Street are the Village's other primary roads, which are part of the Preservation Overlay. The road network can be seen in Map 8-1. These roads could easily become more important in traffic circulation patterns in the Village, particularly if they begin to serve as collectors for future subdivisions, or are employed as a means to avoid congested areas of the Town's central business district during peak vehicular traffic periods. West Road, for example, presently serves as a form of bypass for north-south trips. There are 9.087 miles of traveled Village roads, in total. This mileage, which has remained nearly constant for more than 200 years, is classified by the Agency of Transportation as follows: Class 1 - 2.007 miles; Class 2 - 3.390 miles; and Class 3 - 3.690 miles. Substantial growth in the Town of Manchester has contributed to increased traffic volumes both within, and surrounding, the Village. Maximizing safety for pedestrians, cyclists, and travelers will require controlling access to and use of Main Street (Route 7A), particularly in commercial areas, and is a priority of the Village. Such measures include controlling vehicular movement, and providing adequate off-street parking. Similarly, increased intensity of land use will generate additional trips to and from the Village. This increase will require careful monitoring to ensure adequate capacity, safety, and convenience for the motoring public and residents of the Village. The attraction of the Village for pedestrians, joggers, and cyclists also requires careful examination and consideration of their needs.

Retention of the existing system of roads is essential to protect and maintain the Village landscape. The pattern of development in the Village, and the road system, are intimately related. Consistent with other goals and policies of this plan is the need to minimize significant expansion of the existing road system. When such large expansions are proposed, special precaution must be taken to protect the natural landscape and historic settlement pattern.

Significant amounts of energy are expended to transport goods and people from homes to work, shopping, and beyond. To reduce energy expenditures by daily single passenger vehicles, Village residents should explore opportunities to increase ridesharing and public transit use. Electrification of the personal vehicle fleet with the support of financial incentives from Efficiency Vermont for electric vehicle (EV) purchases and the installation of EV charging stations at public locations in town will be a key strategy to lower future energy use and increase reliance on renewable, locally generated electricity.

8.2 Scenic Roads

The road pattern and streetscape, in and of itself, is a fundamental part of Village history and its aesthetic qualities. In the heart of the Village the relationship of the tree canopy, street lighting, marble walks, and tiers of grass strips, walks, and yards, form a unique bond of aesthetic qualities, which must be preserved. Other roads in the Village have unique qualities as well. River Road winds through an almost park like setting bordered by unique stone-walls, fences, ponds, and vistas, where the natural environment is the predominant experience. Union Street is yet another striking example of a dominant panoramic view of the east face of Equinox Mountain, with the Village's clustered buildings in the foreground. It is essential that all of the positive elements of the streetscape, including immediate, nearby, and distant contributing elements, be recognized and protected.

The Vermont Byways Program provides a formal way for Vermont communities to identify, protect, and promote roads that have special qualities. These qualities might be primarily scenic, as the Scenic Road Law recognized; or they might relate to any of five other "intrinsic qualities" defined by the 39 National Scenic Byways Program - natural, cultural, recreational, historic, or archaeological. Under the new State program, a "Vermont Byway" is a road that has been so designated, because of one or more of these special qualities, and for which a management plan has been developed at the local level.

Unlike the previous law, the Vermont Byways Program does not impose uniform requirements on communities as to how designated roads may be improved or maintained, nor is its scope restricted to the right of way. Rather, the Byways Program takes a flexible approach, which only requires that the local community define what it is that is special about a byway, and then adopt a strategy for managing the byway, in a way that will protect the byway's critical resources.

Efforts to designate the Shires of Vermont Byway began in 2006. The total length of the Byway, including side trips, is 75.8 miles. The Byway was named for the scenic region it passes through, from the southern border of Vermont in Pownal, to where it intersects with the Stone Valley Byway in Manchester. The Byway follows Route 7A through the Village of Manchester.

8.3 Public Transportation and Intercity Bus Travel

Green Mountain Community Network (GMCN) operates the Express transit service, providing a range of fixed-route, deviated fixed-route, and demand response services. A fixed-route service, the Orange Line, runs between Bennington and Manchester along Route 7A, with stops in Bennington, Shaftsbury, Arlington, the Village of Manchester, and the Town of Manchester, twice daily with one morning and one afternoon trip, seven days a week. This provides a valuable commuter link for many workers. The bus makes one stop in the Village at the Equinox Hotel, in Manchester, the bus stops at Shaw's Grocery Store, Manchester Square, Merchants Bank, Manchester Town Offices, and Rite Aid. Connections can be made in Manchester for continued service on The Bus to Rutland.

GMCN also works with volunteer drivers to provide door-to-door transportation to and from medical appointments, as well as special trips for elderly, nursing home residents, and persons with disabilities. These services are very important to the people served.

The Bus, based in Rutland, provides travel between Rutland and Manchester (and the Village of Manchester) four times a day, six days a week. The Bus makes a few stops in Rutland, including the Rutland Airport, and then travels to Wallingford, Danby, Dorset, the Town of Manchester, and the Village of Manchester. Stops in the Village include the Village Post Office and Orvis. In the Town of Manchester, stops include Shaw's Grocery Store, Merchants Bank, Manchester Town Offices, and the Chittenden Bank.

A new intercity bus service, operated by Vermont Translines, began in 2014. The service has two routes, one that connects Burlington to Albany, NY via Bennington and Rutland, and one that connects Rutland to White River Junction and Hanover, NH. This bus service makes one round trip, on each route, each day.

8.4 Air Transportation

Airports in the region include Rutland Southern Vermont Regional Airport, William H. Morse State Airport in Bennington, and Albany International Airport in Albany, NY. Rutland Southern Vermont Regional Airport operates direct flights, serviced by Cape Air, to and from Boston Logan International Airport several times a day. William H. Morse is home to the Bennington Civil Air Patrol wing, which serves the Southern Vermont region. There is no commercial passenger or freight operator based at William H. Morse, but it is a general aviation center used frequently by business travelers. Albany International Airport is the most frequently used airport to those living in, or traveling to/from Western New England, with commercial airline services including, Cape Air, Delta Airlines, Southwest Airlines, United Airlines, US Airways, and JetBlue.

8.5 Bus to Rail Service

Currently, a proposal is being reviewed on the operation of a thruway bus service between the Albany/Rensselaer Amtrak Station, Bennington, and Manchester. Under the proposal, two or more round trips would be made daily, making timed connections with Amtrak train service to Penn Station in New York City. The service would greatly expand access to the Southwestern Vermont area for both vacationers and potential residents who could live in Vermont while maintaining a business connection in nearby metro areas. Vermont residents would also benefit from improved access to passenger rail service.

8.6 Electric Vehicles

The State Comprehensive Energy Plan and the Village's energy chapter emphasize the importance of planning for new technologies to help reach the goal of meeting 90% of the state's energy needs through renewable energy sources by 2050. Supporting the growth of electric vehicles is one way to help Vermont meet this goal. The use of electric vehicles will continue to increase by more than 15% by 2025. To attract those traveling in electric vehicles, municipalities need to provide electric vehicle charging stations. Currently, there are four private electric charging stations located in the Village of Manchester at the Equinox Resort, Taconic Hotel, and the Inn at Manchester, for hotel guests. In the Town of Manchester, there are additional public charging stations, four behind the Northshire Bookstore, one at Langway Chevrolet, four at Hampton Inn and Suites, and six at Zoey's Double Hex Restaurant. With the installation of more charging stations, the Village will be able to accommodate electric vehicle travelers by supporting their vehicle of choice.

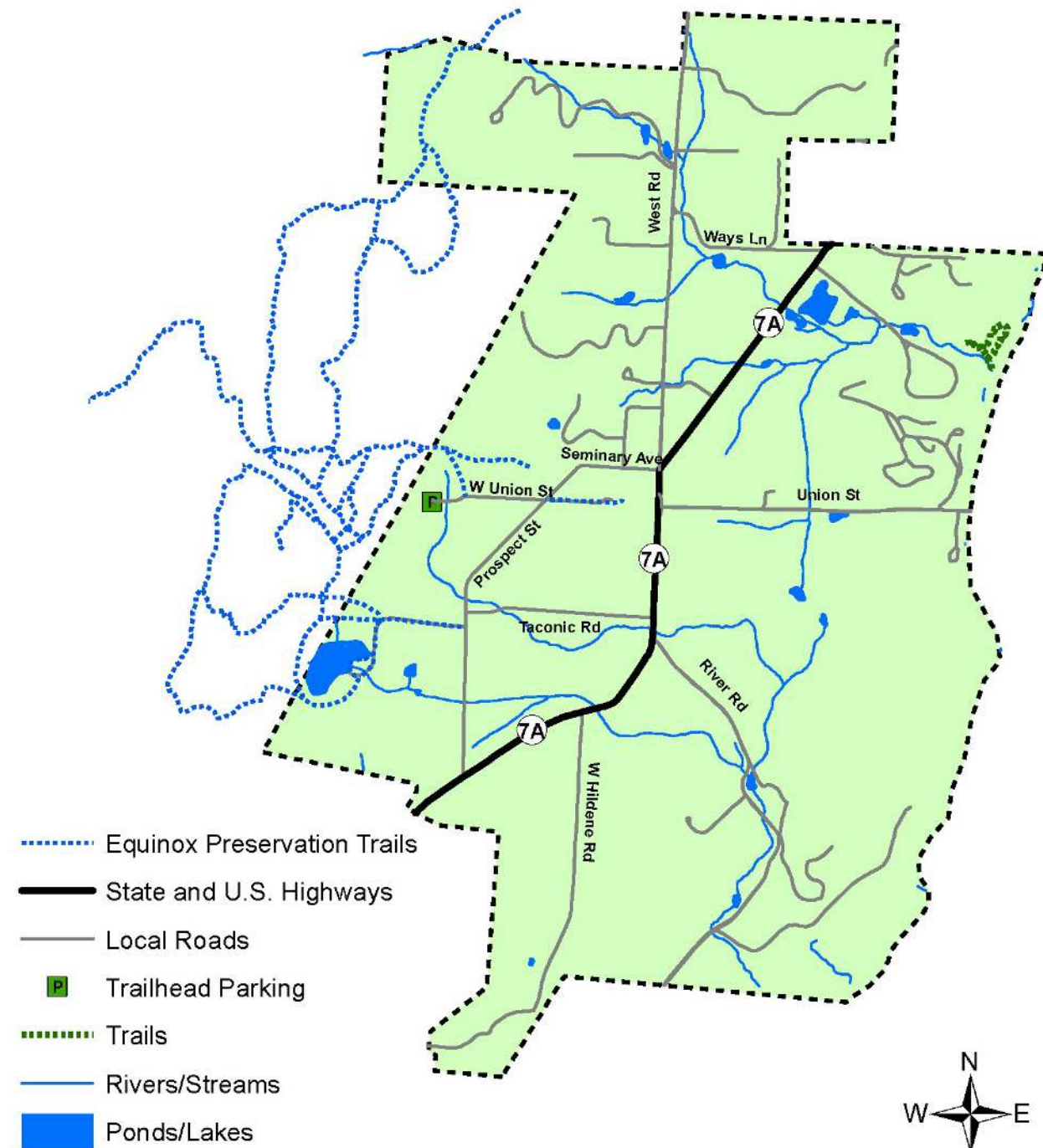
8.7 Transportation Goals:

1. To provide safe and adequate transportation for Village residents and visitors, while preserving the Village character.

8.8 Transportation Policies:

1. To assure high standards of design and construction, great care must be taken in evaluating new subdivision streets.
2. Street standards must be established in accordance with Village standards.
3. Every opportunity must be taken to ensure that adequate road geometry results from improvements in street alignment and intersections.
4. Landscaping and sidewalks must be properly and adequately maintained wherever they exist.
5. All new road construction must take into account the limitations imposed by topographical conditions, natural resources, unique sites, fragile areas, and must be designed to avoid disruption to the historic settlement pattern and open spaces.
6. Land use intensity must consider trip generation in relation to traffic efficiency, safety, and road-intersection capacity. If necessary, the cost of mitigating impacts must be borne, in relation to the impact caused.
7. Preservation and maintenance of the transportation system is a high priority for the next several years. Route 7A must be preserved as a two-lane road to insure compatibility with the late 19th, and early 20th Century Village.
8. The Village should continue to support existing public transportation services, including intercity bus service, to meet current and future demands.
9. The Village supports the use of alternative fuels and should consider them in planning, when feasible. Businesses and municipal sites are encouraged to install EV charging stations to accommodate residents and visitors with EVs.
10. Maximize safety for pedestrians and cyclists throughout the Village.

Map 8-1 Transportation



Map produced June 23, 2015 by
Bennington County Regional Commission
111 South Street, Suite 203
Bennington, VT 05201

9.0 COMMUNITY FACILITIES, UTILITIES AND FINANCE

9.1. Education and Childcare

The Village of Manchester is part of the Town of Manchester School District, which is a member of the Bennington-Rutland Supervisory Union. From kindergarten through eighth grade, Village students attend Manchester Elementary Middle School (MEMS) or other private schools. MEMS is only a PK-8 school, so secondary school students (grades 9-12) are provided tuition funds to allow attendance at private schools. Most local students attend Burr and Burton Academy, an independent, coeducational New England secondary school that serves as the school of choice for 680 students from Manchester and twelve surrounding communities as well as over sixty students from overseas. Burr and Burton Academy is located in the Village and occupies almost 90 acres of campus, headmaster residence, athletic fields and student housing.

MEMS has maintained a student enrollment close to 400 with a student capacity of 575. Burr & Burton Academy has maintained an enrollment of around 700 students. Maple Street School, an independent K-8 co-educational day school that opened its doors in 1998 had an enrollment, during the 2014-15 school year of 121, and the capacity is 125. Finally, the Manchester Village School (MVS), an independent, therapeutic day school serves the educational needs of general education students and students with special needs. Burr and Burton Academy, Maple Street School and Manchester Village School locations can be seen on Map 9-1.

Other education opportunities in the region include Southwest Career Development Center (SVCDC), sharing a site with Mount Anthony Union High School in Bennington, is a technical education center serving towns throughout the region. SVCDC offers 20 technical programs and related classes for high school age students. A wide variety of adult education offerings are also available. There are six colleges in Bennington: Bennington College, Southern Vermont College, units of the Community College of Vermont, Vermont Technical College satellite campus, Johnson State College External Degree Program through online and weekend courses, and the Northeast Baptist College. Each of the colleges provides important services and imparts significant benefits to the region. All of these educational facilities are within 30 miles of Village of Manchester.

More education and training opportunities are also being provided through online courses and degree programs, many of which are coordinated through, and supplemented by, local schools and institutions such as the Community College of Vermont and Vermont Technical College. Organizations such as the Green Mountain Academy for Lifelong Learning in Manchester and the Vermont Arts Exchange in North Bennington offer accessible and diversified educational programs to the public. In addition, a good telecommunication network makes course offerings from colleges and universities around the country available to local residents. Maintaining comprehensive broadband to serve schools, colleges, libraries, and the general population is critical to supporting education and community development.

Childcare centers and in-home childcare are significant services that contribute to the area's economy. Childcare centers vary in size and function and range from small in-home facilities to larger state registered and licensed facilities. The Village encourages quality childcare services commensurate with the need and demand for such services that are compatible with the Village "residential" setting.

Policies:

1. Proposals for development must address and help to mitigate the impacts of related growth on the local educational system and childcare.

9.2. Police, Fire, and Emergency Services

The Town of Manchester Public Service Departments (Police, Fire and Emergency Management) provides protective services for the Village through a mutual aid agreement. The Manchester Rescue Squad, Inc. an independent non-profit organization provides emergency medical services to five towns, including the Village.

Policies:

1. Continue to provide emergency services to the residents of the Village.
2. Proposals for development must address and help to mitigate the impacts of related growth on local police, fire, and emergency services systems.

9.3. Health and Social Services

The Southwestern Vermont Medical Care (SVMC) in Bennington and Rutland Regional Medical Center (RRMC) in Rutland serve as the primary hospitals for the Village. The SVMC Northshire campus provides primary care for many in the Village is located north of the Town's Center. Manchester Health Services, Inc. (MHS), is a non-profit agency that provides a variety of health programs and services in the Manchester area. These programs and services include home care, outpatient therapy and special programs including child health respite, hospice, exercise programs, clinics and the Thrift Shop, accepting donations of clothing and small household items.

Other health and social service serving the Manchester area include, Bennington Outpatient Clinic operated by the Department of Veterans Affairs (VA), United Counseling Service (UCS) provides mental health, developmental disability and substance abuse services and The Community Food Cupboard, provides nutritious food to people in need.

Policies:

1. Proposals for development must address and help to mitigate the impacts of related growth on local health and social services systems.

9.4. Solid Waste

The Vermont Legislature passed the Universal Recycling Law or Act 148 in 2012, to significantly reduce the amount of material going into landfills. To abide by this law, the Bennington County Solid Waste Alliance (BCSWA) was formed. Manchester Village, through Manchester's participation, is part of the BCSWA. The mission of the BCSWA is to reduce the amount of waste disposed in landfills, by incineration or other similar means by reducing the amount of waste generated, conserving resources and promoting recycling and reuse.

To accomplish this, the Alliance has adopted the following goals:

1. Reduce the disposal rate or the amount of municipal solid waste disposed by 25% by 2020 from the 2015 amount.
2. Increase the diversion rate, or the amount of material diverted from landfills to 50%.

In June of 2014, the Vermont Agency of Natural Resources adopted a Materials Management Plan, as required under the Universal Recycling Law. The Towns of Arlington, Bennington, Dorset, Glastenbury, Manchester, Pownal, Rupert, Sandgate, Searsburg, Shaftsbury, Stamford, Sunderland, and Woodford are responsible for implementing state materials management policies and the requirements of the Universal Recycling Law. These towns cooperated to develop a Solid Waste Implementation Plan (SWIP) in conformance with the Vermont Agency of Natural Resources Materials Management Plan. The plan discusses solid waste facilities and services offered in the area, and includes how the solid waste will be managed and reduced.

Five Northshire Towns, including the Village, utilize the Sunderland Transfer Station under contract with Casella Waste Systems, Inc., which owns and operates the facility. Some residents also utilize the Northshire Transfer Station in East Dorset also operated by Casella Waste Systems, Inc.

Policies:

1. All efforts should be made to reduce the volume of solid waste generated in the Village. Source reduction, recycling, and composting should be encouraged.
2. The transportation of waste must be controlled with regard to weights, hours, routes, and types of transporting vehicles.

9.5. Wastewater Treatment

The Village wastewater treatment is provided by the Town of Manchester. The Manchester Wastewater Treatment Facility is located at the eastern boundary of the Village along the Batten Kill River (seen in Map 9-1). The facility is permitted to treat and discharge an average day flow rate of 600,000 GPD (gallons per day).

Policies:

1. The sewer system should be extended within the Village, particularly to serve problem areas consistent with the Town's service area policy.
2. New subdivisions shall be connected to the public system, wherever possible.
3. In cases of new residential and non-residential developments, the cost of extensions, larger lines, or treatment plant improvements shall be a part of development costs.
4. The sizes of new sewer lines should be based on the long-range needs of the whole area to be served.

9.6. Water Supply

The Town of Manchester's water system serves parts of the Town and Village. At the current time, all potable water comes from two wells just outside the Village at the foot of Union Street. Barring any conditions affecting water quality, this source is adequate to meet the Town and Village needs for a considerable period of time. The Board of Water Commissioners feels it is necessary to seek a secondary source as a long-range priority. This would serve as insurance in the event of contamination of the Batten Kill well site. The Board of Water Commissioners has adopted regulations for use, connections, extensions, and ownership. These tend to support the existing service area except in instances of upgrading the system or abating significant problem areas in the absence of other solutions. An Aquifer Protection Area (APA) in the Town is identified for protection of the ground water supply source. A portion of the APA extends into the Village. Precaution must be taken to ensure those uses within the APA present low risk of contamination to the water supply.

Policies:

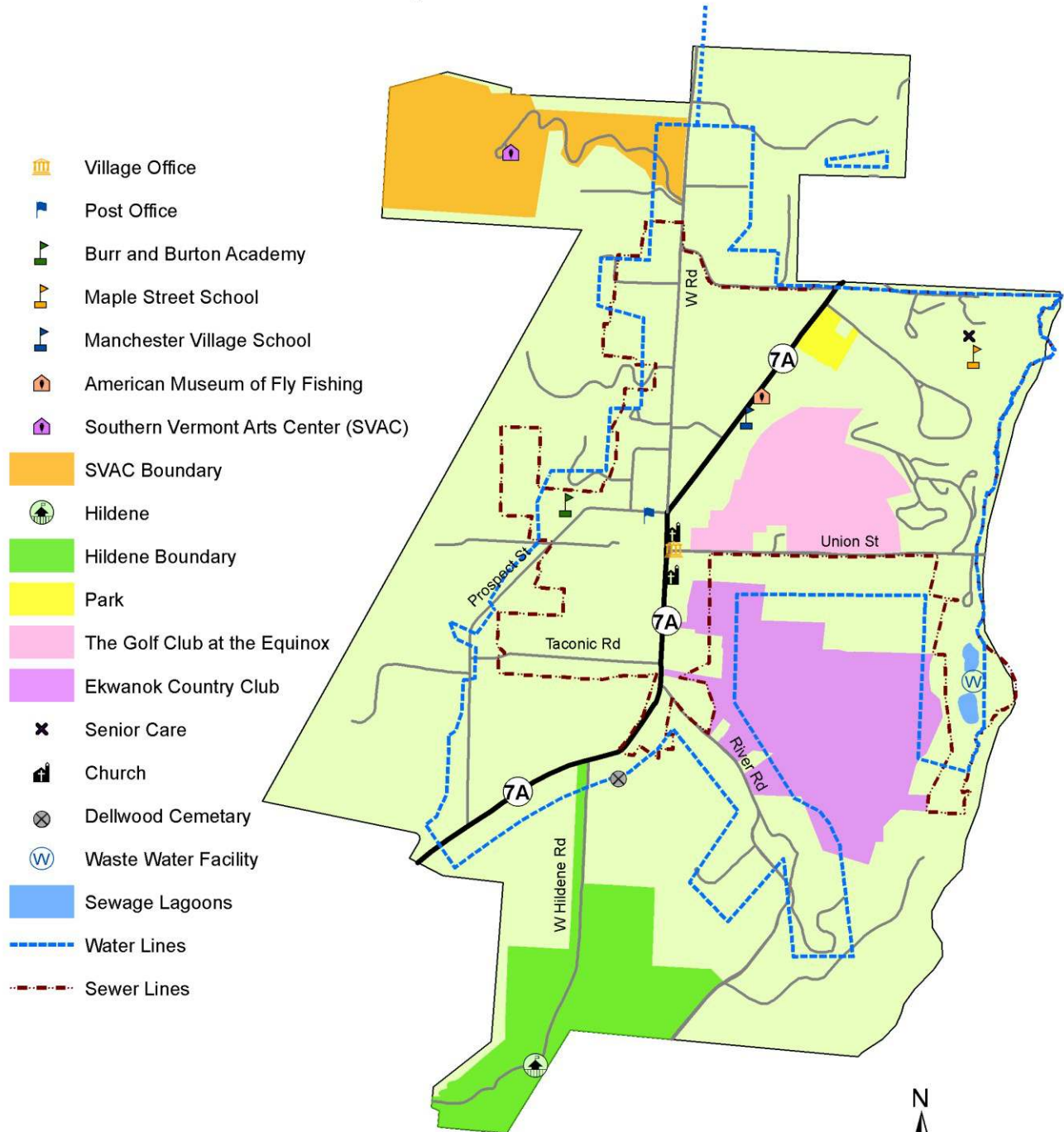
1. Public water service should be extended in instances where water supplies are contaminated and are within reasonable distance to the existing service area.
2. Public water service should be extended to new subdivisions whenever they are within reach of existing water mains and can meet the policies and regulations of the Town Board of Water Commissioners. These extensions should be provided by the developers as a part of the cost of subdivision improvements.
3. As the Village grows, improvements should be made to assure an adequate supply of water to both Village and Town.
4. Development should be planned to minimize water consumption.

9.7. Village Finances

The fiscal year of the Village is May 1 through April 30. In 2015 (April 30) Village revenues totaled \$480,880.27 compared to \$546,306.92 of expenses, resulting in a General Fund loss of \$-65,426.65. The Special Fund balance was \$158,407.86; this included the Permits and Fees Fund, Employee Benefit Fund, and Equipment Reserve. The largest expenditure is for highway maintenance at \$386,861.02 (70.8% of total expenses). The primary revenue source is Property Taxes at \$391,657.85 (81.4%). The Village may consider development of a Capital Budget to plan for future major expenditures and assess the costs and benefits of investments in building weatherization, electrification of thermal and transportation technologies, installation of renewable energy facilities, or other strategies to meet future energy targets.

A separate assessment by the Town of Manchester funds municipal services such as schools, police protection, and municipal water and sewerage. The Town of Manchester is periodically updating its Capital Improvement Program (CIP). The Village Trustees and Planning Commission should review the CIP and provide input as appropriate. The Village should evaluate its own future capital needs, and when desirable or necessary, coordinate those with the Town.

Map 9-1 Community Facilities and Utilities



Map produced June 24, 2015 by
Bennington County Regional Commission
111 South Street, Suite 203
Bennington, VT 05201



10.0 ENERGY

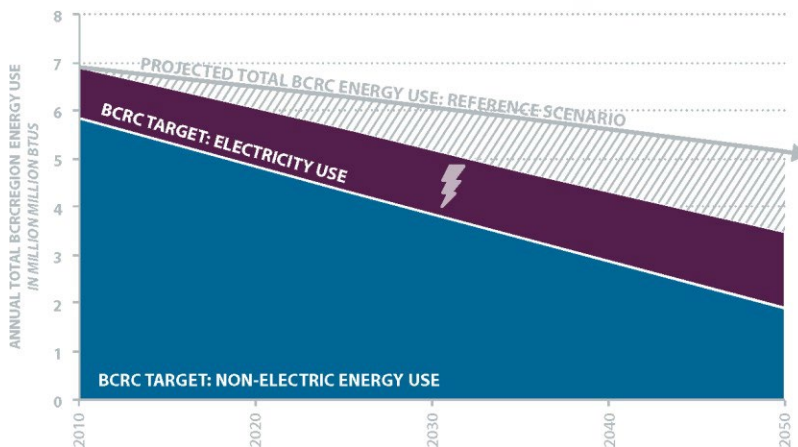
10.1. Energy Planning in Village and State

Energy is a resource that must be considered in any comprehensive planning process. The Village of Manchester (Village) recognizes that as conventional fuel resources dwindle globally, the future resilience of its small community will require lowering dependence on imported, non-renewable fuels, tapping local energy sources for enhanced self-reliance, and improving efficiency.

Village of Manchester Energy Goals and Policies:

1. Use land use planning to reduce reliance on fossil fuels and imported energy sources.
2. Reduce overall energy consumption through conservation and efficiency.
3. Develop renewable energy resources locally.

The State of Vermont established markers through its Comprehensive Energy Plan (CEP updated 2016) to help guide communities to a sustainable future. A central goal of the plan is to attain 90% renewable energy by 2050. To achieve this goal, however, development of new renewable energy sources is insufficient on its own. Since renewable sources yield less energy per unit than their fossil fuel-based counterparts, a drastic reduction in overall energy consumption is critical to meeting this target.



In the Village of Manchester, total energy consumption would have to be cut by more than half by 2050 to meet this goal. Energy conservation efforts combined with improved energy efficiency through technology upgrades and building weatherization will enable Vermont municipalities to reduce energy consumption.

Vermont Energy Goals and Policies (VT Comprehensive Energy Plan [CEP], 2016):

1. Obtaining 90% of energy for all uses from renewable sources by 2050.
2. Reducing greenhouse gas emissions to 50% below 1990 levels by 2028 and 75% by 2050.
3. Relying on in-state renewable energy sources to supply 25% of energy use by 2025.
4. Improving the energy efficiency of 25% of homes by 2025.
5. Meeting the Vermont Renewable Energy Standard through renewable generation and energy transformation.

A key aspect of improved efficiency will be a greater reliance on electricity. Since electricity can be generated from renewable resources, and electric-powered technologies such as heat pumps and electric vehicles are highly efficient, switching to electricity will help lower overall energy consumption even as lifestyles remain much the same as today. By 2050, nearly half of all energy will be supplied through electricity according to projections in the VT CEP.

Though this major shift in energy use is considerable, there are opportunities to lower costs and bolster the local economy through a transformation of the Energy Sector, which now costs the Bennington Region over \$150 Million a year in imported fuels electricity costs (2014 estimates). Nearly all this money currently flows out the region and the state, so redirection of these funds to local energy businesses and jobs will better retain wealth in local communities.

The Energy Chapter of the Village of Manchester municipal plan is intended to provide the residents and local leadership of the Village with information and strategies needed to plan for an energy future that maintains a vibrant community, as the energy sector evolves to lower energy costs, to promote local renewable energy development, and to better protect the environment.

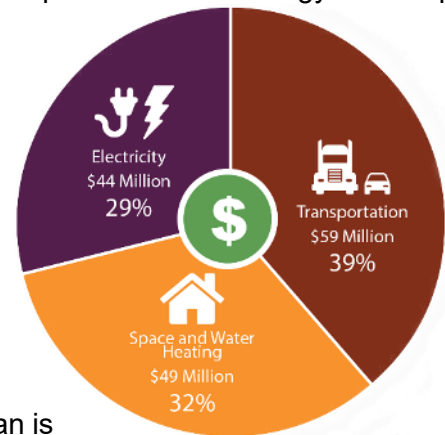


Figure 2: BCRC Region Energy Cost Estimates, 2014

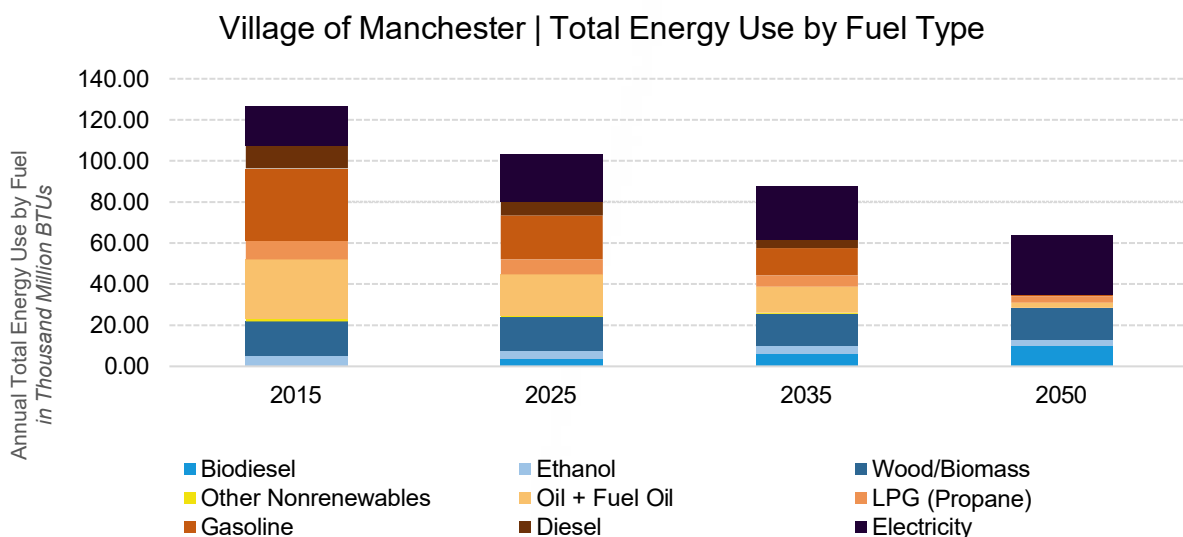
Based on data from Census Bureau, VT Dept. of Motor Vehicles, and US Energy Information Administration.

10.2. Current and Future Energy Use

As a village located in a rural context with 648 residents housed mostly in single family homes, the Village of Manchester consumes a considerable amount of energy every year to meet its transportation, space heating, and electricity needs. According to LEAP model projections (see BCRC Regional Energy Plan 2017, page 39, for more details), the Village of Manchester uses over 120,000 thousand million BTUs (British Thermal Units) per year.

The chart below illustrates one path the Village can pursue to achieve this target through gradual adaptation and fuel switching over the next several decades. With the year 2015 as a baseline, the Village has identified energy use targets by fuel/energy carrier for years 2025, 2035, and 2050:

Figure 3: Village Total Energy Use by Fuel Type, 2015—2050. Based on LEAP projections.



According to LEAP projections, the Village of Manchester would phase out fossil fuels through electrification of the transportation and heating sectors, with biodiesel replacing some conventional diesel and oil fuels, and with widespread use of woody biomass for space heating. Over time, electricity will go from meeting just 15% of total energy needs in 2015 to 46% of energy needs in 2050. More details on how specific technologies and strategies will achieve this energy reduction and fuel conversion are broken down by energy sector below.

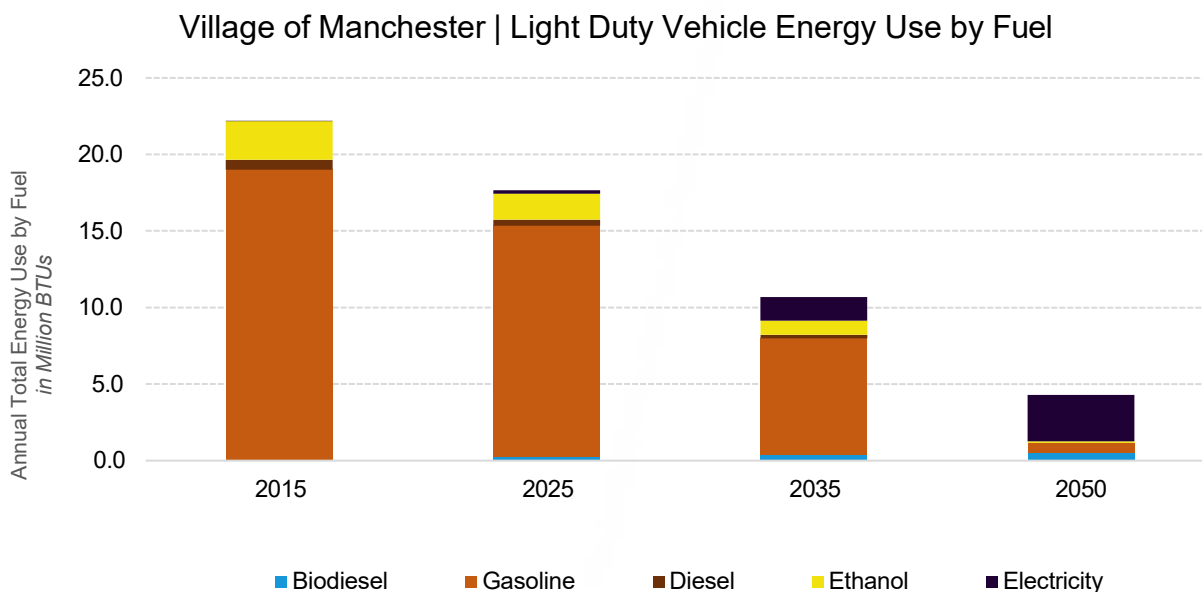
10.3. Residential Energy Use

Energy use can be grouped into 3 major sectors: transportation, thermal (heating and cooling), and electricity. The Village's more than 600 residents consume large amounts of energy for transportation, to heat space and water, and to power lights and appliances with electricity. By identifying technologies and practices capable of catalyzing the transformation of each energy sector, the Village of Manchester aims to provide its residents and municipal officials the tools necessary to realize the state's energy goals.

Transportation

In the Village, and across all Vermont, transportation consumes the most energy of any one sector. Due to the Village's largely rural location in southwestern Vermont, people and goods constantly travel long distances to move to and from the community. The light duty vehicle has made this independent mobility and the freedom and access that come with it possible, yet most vehicles rely on vast amounts of non-renewable fuel inputs to function. Given the dependence most households have developed on fossil fuel vehicles, transportation represents one of the greatest challenges to reducing overall energy use.

Figure 4: Village Light Duty Vehicle Energy Use by Fuel, 2015—2050. Based on LEAP projections.



Electric vehicle (EV) technologies have advanced significantly in recent years and these systems are projected to dominate the car industry in coming decades. By electrifying the light duty vehicle fleet, Village of Manchester residents have the opportunity to improve transportation efficiency and divert money currently spent on fossil fuels. Targets for gradually reducing energy consumption and converting to EV technologies are shown in the chart on the following page.

Over the next three decades, total energy for transportation would fall gradually to just 20%, or one fifth, of current levels by 2050. Electrification of 70% the light duty vehicle fleet would account for much of this reduction in energy use. The following EV vehicle count targets should guide adoption

rates in the Village: by 2025, 26 EVs; by 2035, 179 EVs; and by 2050, 370 EVs (targets generated

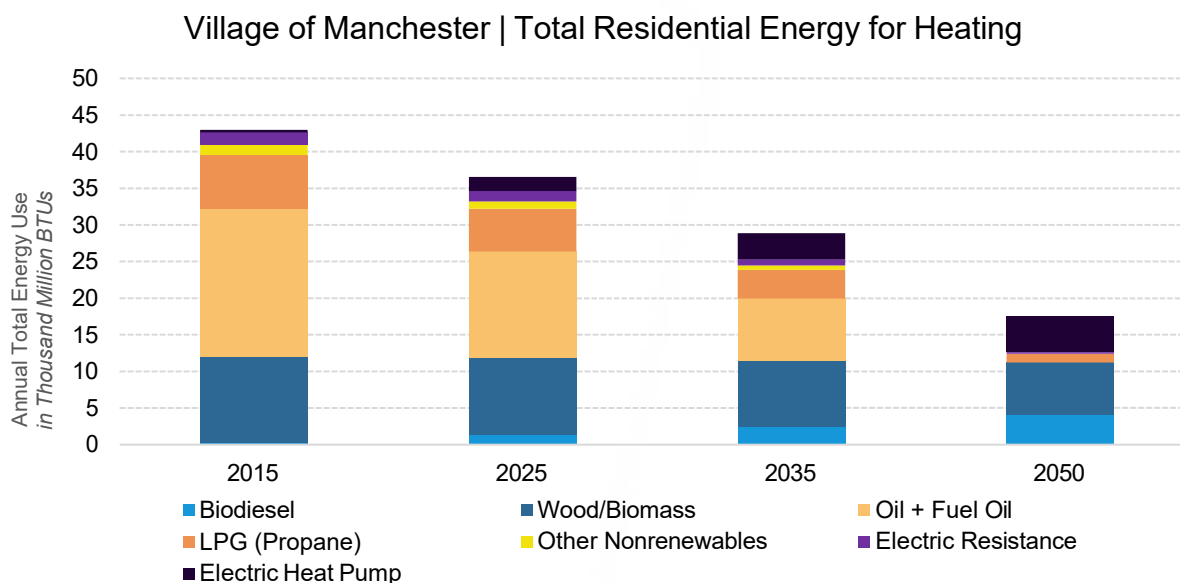
through LEAP analysis). A combination of biodiesel and gasoline fuels will power the remaining portion of light duty vehicles.

While EVs will play a major role in reducing energy use while allowing Village residents to continue to rely on some personal vehicle travel, efficiency gains from EVs alone will not account for all the energy reduction needed to meet future transportation energy targets. Conservation through behavior changes such as carpooling, transit use, and increased reliance on walking and biking will be critical to reaching 2050 energy targets. Policies that encourage dense land use development and implementation of Complete Streets road design are necessary to shift the predominant transportation model from being vehicle-centric to multimodal and efficient-by-design.

Thermal

Close to half of Village of Manchester homes are heated throughout the 7-month heating season by oil. Though this fuel source has been inexpensive and widely accessible in the past, projected future shortages of fossil fuels suggest that the Village should mitigate reliance on this fuel source by switching to more efficient systems that can be powered by local resources. Woody biomass is one abundant local resource already used for space heating. Wood and pellet stoves currently heat 27% of Village residences, and this proportion is projected to increase to about 40% of Village homes by 2050. Though the number of homes heated by woody biomass will increase, the total energy consumed by these systems will lower from about 43 thousand million BTUs to 9 thousand million BTUs as aging stoves are replaced by newer, more efficient ones.

Figure 5: Total Residential Energy Use for Heating, 2015—2050. Based on LEAP projections.



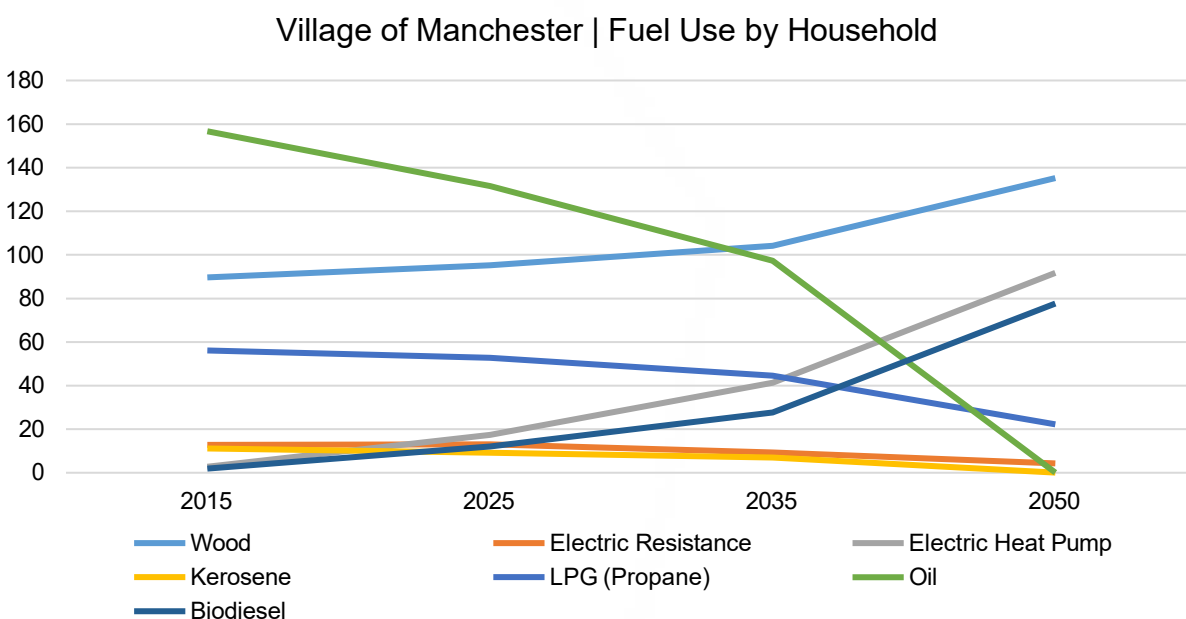
The Village of Manchester's energy use for residential heating would decline to just 40% of current use, or 17 thousand million BTUs, by 2050. Cold-climate electric heat pumps are another highly efficient technology that will play a major role in lowering overall energy consumption in the Village through electrification. By 2050, one in four homes would use an electric heat pump as its primary heating source. Cold-climate heat pump technology, based on the mechanism that cools refrigerators by extracting cold air from ambient space, has improved significantly in recent years. In addition to being more energy efficient than other heating technologies, heat pumps can cool one's home during the warmer months. To meet 2050 goals, electric heat pumps can be adopted in accordance with the following household target counts: by 2025, 17 households heated primarily by

cold climate heat pump; by 2035, 41 households; and by 2050, 92 households (targets generated through LEAP analysis).

The overall shift in residential thermal energy use can also be shown by portion of households (see chart on following page). According to LEAP estimates, of the Village's more than 300 households, over 130 homes would rely for heating on woody biomass through high efficiency pellet and wood stoves, about 90 homes would use electric heat pumps, and almost 80 homes will use biodiesel-based systems. Some homes would continue to use liquid propane gas (LPG), but at a fraction of today's usage (about 22 homes in 2050).

Gradually switching thermal systems to more efficient electric options would do much to improve energy efficiency, but thermal conservation gains would rely on extensive weatherization of existing homes and incorporation of building codes for new construction. The following household weatherization count targets can help guide efforts in the Village of Manchester: 23 households weatherized by 2025; 71 households by 2035; and 155 households by 2050 (targets generated through LEAP analysis).

Figure 6: Village Fuel Use for Heating by HH, 2015—2050. Based on LEAP projections.



By better sealing and insulating homes, total energy use will decrease drastically since it requires less energy to heat and cool a weatherized home. NeighborWorks of Western Vermont is a regional organization that offers technical assistance and financing options to make weatherization programs accessible.

Electricity

As mentioned previously, electricity use will expand greatly in the future since it is a reliable way to make renewable energy sources available for use. Electricity is a conductor of energy, not a source, but electricity is often mentioned as if it were an energy source since widespread adoption of appliances, vehicles, and thermal technologies powered by electricity are critical to achieving Vermont's energy goals.

As part of this process, total electricity use is expected to increase to 29.1 thousand million BTUs, more than doubling current usage, by 2050. This increase may seem contrary to energy use

reduction goals, but since electricity is much more efficient than the fuels it will replace, total energy

consumption will decline even as electricity use rises. More is said about local generation of electricity in a later section on *Local Renewable Energy Potential*.

10.4. Commercial and Industrial Energy Use

The Village of Manchester is home to several service-based and other business establishments that provide jobs and economic vitality to the Village community. About 38 establishments may be considered commercial (service producing) and 2 that may be considered industrial (goods producing) (data from Village of Manchester, October 2019). Industrial operations in the Village are limited to the Orvis Fly Rod Shop and small-scale cheese production at Hildene Farm. The industrial energy use levels shown below represent breakdowns of statewide trends, and it is likely that this sector is in fact less intensive in the Village than shown. Future updates to this section may attempt to estimate actual energy use levels of industrial operations.

Figure 7: Village Total Commercial Energy Use by Fuel, 2015—2050. Based on LEAP projections.

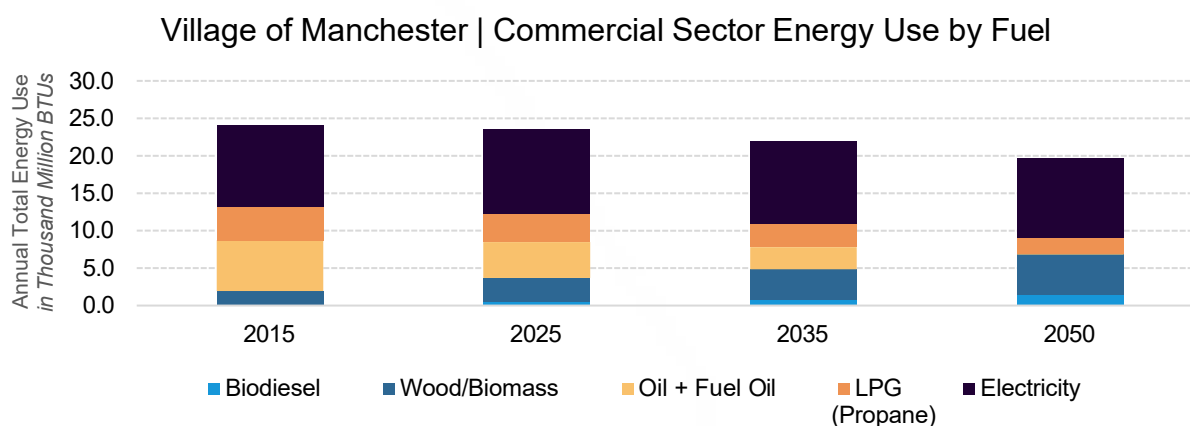
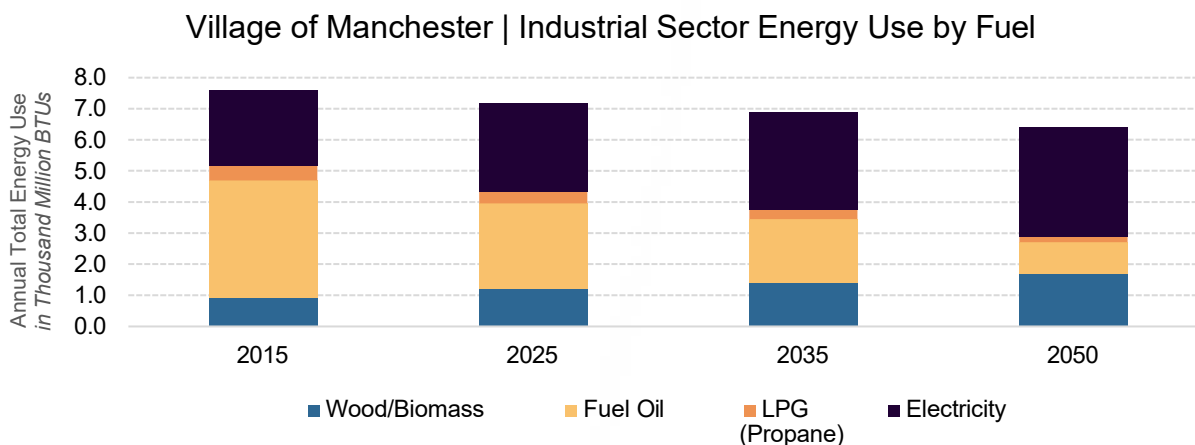


Figure 8: Village Total Industrial Energy Use by Fuel, 2015—2050. Based on LEAP projections.



It is clear at a comparative glance that overall energy use reduction at the Village of Manchester's businesses and industries is not projected to be as dramatic as for Village homes. This flexibility is intended to prevent energy reduction goals from threatening local establishments' viability over the next several decades. At the same time, policies and market forces still expect businesses to pursue energy reduction strategies appropriate to their ability.

Fuel oil use is projected to decrease to almost no use in the commercial sector and to 74% of current levels in the industrial sector by 2050. Businesses will need to plan for electrification, woody biomass combustion systems, and biodiesel use to replace this fuel over time. Most businesses can reduce energy consumption through straightforward conservation practices such as upgrading lightbulbs and

appliances, powering down appliances and machinery when not in use (such as by using programmable timers), and adjusting thermal settings. Comprehensive energy audits are an excellent first step to identifying strategies that make the greatest impact on energy reduction and cost savings. Additionally, since many commercial and industrial operations involve sizeable building footprints, some sites may be well suited to accommodate rooftop solar arrays.

10.5. Municipal Energy Use

Local government and schools are significant consumers of energy, and the costs associated with energy use by those entities have a direct bearing on taxes. Energy conservation and use of alternative energy systems in this sector have the potential to produce significant savings for the community and to set a visible example of responsible energy use.

The Village Offices are located on the lower floor of the historic Bennington County Courthouse, which is owned by the Town of Manchester and officially ceased use as a courthouse in 2019. The Courthouse was originally built in 1822 and enlarged in 1849. It is a large brick structure with a slate gable roof. The Village Offices comprise about 1500 sq feet of the building. The offices are heated by oil and are not air conditioned. The offices were constructed in 2010 with modern building components. Office lighting is provided by fluorescent lights. Here follows an estimate of annual energy use:

Energy Source	Quantity Used	Cost Factor	Total Cost
Village Offices			
Oil Heat (<i>May 2020 – February 2021</i>)	1,425.20 gallons	\$2.50/gallon	\$3,563
Electricity (<i>April 2020 – February 2021</i>)	3,380 kWh	\$0.22 kWh	\$743.60
Village Garage (2 trucks one backhoe, one track loader, one mower)			
Oil Heat (<i>2019 full year</i>)	1,313 gallons	\$2.50/gallon	\$3,282.50
Electricity <i>(2019 full year for exterior floodlights and interior fluorescents)</i>	6,368 kWh	\$0.22 kWh	\$1,400.96
Diesel Fuel (<i>2019 full year</i>)	4,803.1 gallons	\$2.70/gallon	\$12,968.37
Village Street Lighting			
Union Street <i>(2019 full year for Equinox island LED lights, black post streetlights – mercury vapor)</i>	14,053 kWh	\$0.22 kWh	\$3,091.66
Municipal Lighting <i>(2019 full year for 61 LED lights)</i>	42,546 kW	\$0.22 kWh	\$9,360.21
Ornamental Lighting (<i>2019 full year LEDs</i>)	1,162 kWh	\$0.22 kWh	\$255.64

The Village Garage operates efficiently. Municipal trucks are not permitted to idle. The garage building has automatic door openers and closers to prevent heat loss to the outdoors. However, the single greatest municipal energy cost (over \$11,000 per year) goes to the diesel fuel to power all the Village's heavy equipment and vehicles.

The best first step to lower municipal energy usage is to pursue a comprehensive energy audit to identify the most cost-effective strategies to reduce the Village's carbon footprint and transition to renewable energy sources. Exploring the use of biofuels in municipal vehicles and equipment is an additional option that some other cities and towns have trialed. There is currently one small local producer of biofuels in Bennington County. In addition, updating lighting for the following uses to LED

fixtures would create savings for the Village: floodlights at garage, fluorescent interior lighting in garage, and the black streetlights currently mercury vapor.

Schools. There are three schools operating in the Village: Burr and Burton Academy (BBA) is an independent high school, and the Maple Street School and Manchester Village School are independent K-8 schools. BBA is a major institution and energy user in the Village, with its 90-acre campus and numerous academic and residential buildings serving a population of about 750 students and over 100 staff and faculty. BBA has taken many steps to lower its energy and resource consumption, noting the following accomplishments: “a Mountain Campus LEED certified building and Governor’s award for environmental excellence; main campus electricity provided by hydro power; buses powered by biodiesel; hand dryers vs. paper towels; recycling and composting programs; locally sourced food; energy efficient lighting, and water bottle filling stations”. A new academic building, the Rowland Project, exemplifies this commitment to sustainability. The building will be ‘net zero ready’ with no combustion equipment onsite. Heating and cooling for the building will be provided by cold climate heat pumps with an electric resistance heating boiler system as back-up in case of extremely cold weather. Efficiency will be maximized by a building automation system and a thermal energy storage system that will lower overall energy use through heat recapture and reduce demand from the grid during peak energy use hours. All lighting will be LED.

Estimates of annual energy use were provided by two schools, 2019-2020:

Energy Source	Quantity Used	Cost Factor	Total Cost
Burr and Burton Academy			
Propane Heat	1,900 gallons	\$1.45 / gal	\$2,755
Oil Heat	66,000 gallons	\$2.50 / gal	\$165,000
Electricity	767,000 kWh	\$0.22 / kWh	\$168,740
Cord Wood Heat	3 cords	\$200 / cord	\$600
Gasoline Fuel (5 buses, 8 vans, 2 pickups, 3 SUVs, 2 food vehicles)	14,290 gallons	\$2.60 / gal	\$37,150
Maple Street School			
Propane Heat	79.9 gallons	\$1.45 / gal	\$182.17
Oil Heat	6,657 gallons	\$2.50 / gal	\$13,314
Electricity	83,377 kWh	\$0.22 / kWh	\$18,342.94
Electricity Generated	2,725 kWh	---	---
Gasoline/Diesel Fuel	<i>Owns no vehicles and uses approx. 20 gallons gasoline fuel per year for lawn mowing machine.</i>		

10.6. Commercial Energy Use

The Village’s economy is shaped by its scenic setting and historic character. The area attracts many annual visitors that support various lodging and restaurant establishments, but the Village is also home to over 700 full-time residents who work primarily in the information, management, education, and arts, recreation, and food industries. A 2020 energy use survey administered by the Village Energy Committee requested information on current energy use levels at prominent businesses in the community. A sample of the findings is provided below, and a more comprehensive analysis of energy use by sector is developed and maintained by the energy committee. Over time, these records will serve to track progress on improving overall conservation, efficiency, and renewable energy development in the Village.

Major Hospitality, Manufacturing, and Non-Profit Organizations in the Village. The following values are estimates based on data provided by the companies and organization:

Energy Source	Quantity Used	Cost Factor	Total Cost
Equinox Resort (<i>estimated 2019 usage</i>)			
Propane Heat	121,583 gallons	\$1.45 / gal	\$176,295
Oil Heat	45,617 gallons	\$2.50 / gal	\$114,042
Electricity	3,029,797 kWh	\$0.22 / kWh	\$666,555.34
Gasoline Fuel (2020)	4,210 gallons	\$2.60 / gal	\$10,946
Diesel Fuel (2020)	2,067 gallons	\$2.70 / gal	\$5,580
Orvis (<i>numbers adapted from usage Oct 2017 – Sept 2019 for Flagship Rod Shop, School, and Outlet</i>)			
Propane Heat	23,228 gallons	\$1.45 / gal	\$33,680
Oil Heat	3,322 gallons	\$2.50 / gal	\$8,305
Electricity	960,586 kWh	\$0.22 / kWh	\$211,328.92
Gasoline Fuel (2019 one box truck)	1,400 gallons	\$2.60 / gal	\$3,640
Hildene (<i>estimated 2019 usage</i>)			
Propane Heat	10,648 gallons	\$1.45 / gal	\$45,765
Oil Heat	3,365 gallons	\$2.50 / gal	\$8,414
Electricity	254,252 kWh	\$0.22 / kWh	\$55,935.44
Cord Wood	45 cords	\$200 / cord	\$9,000
Pellet Wood	21 tons	\$6/40 lb bag	\$6,300
Electricity Generated (2020 total)	112,906 kWh	---	---
Gasoline/Diesel (2019)	2,915 gallons	\$2.65 / gal	\$7,724.75
Kimpton Taconic Hotel (<i>estimated 2019 usage</i>)			
Propane Heat	19,200 gallons	\$1.45 / gal	\$27,840
Electricity	875,000 kWh	\$0.22 / kWh	\$192,500
Cord Wood	5 cords	\$200 / cord	\$1,000

Just as with schools and municipal facilities, completing a comprehensive energy audit is the best first action these businesses can take to identify energy saving opportunities, technology upgrades, and renewable energy sources that will lower their carbon footprint while also serving the company bottom line. NeighborWorks of Western Vermont (NWWVT) is a non-profit organization that provides low-cost comprehensive energy audits, low interest energy loans, and facilitates access to financial incentives from Efficiency Vermont. NWWVT's Heat Squad provides these services and estimates that clients save as much as 32% on annual heating costs after improvements. The Bennington Region Opportunity Council (BROC) and the Vermont State Employees Credit Union (VSECU) also provide access to low-cost energy audits and low-interest financing programs.



Two Senior Living Facilities. The following values are estimates based on facility reports:

Energy Source	Quantity Used	Cost Factor	Total Cost
Equinox Terrace <i>(estimated 2019 usage)</i>			
Propane Heat	37,116 gallons	\$1.45 / gal	\$53,818
Electricity	400,426 kWh	\$0.22 / kWh	\$88,093.72
Gasoline Fuel (one car and one van)	~460 gallons	\$2.60 / gal	\$1,200
Equinox Village <i>(estimated 2019 usage)</i>			
Propane Heat	60,000 gallons	\$1.45 / gal	\$87,000
Electricity	550,000kWh	\$0.20 / kWh	\$110,000
Gasoline/Diesel Fuel	<i>Owens 1 bus and 1 SUV. Level use unknown.</i>		

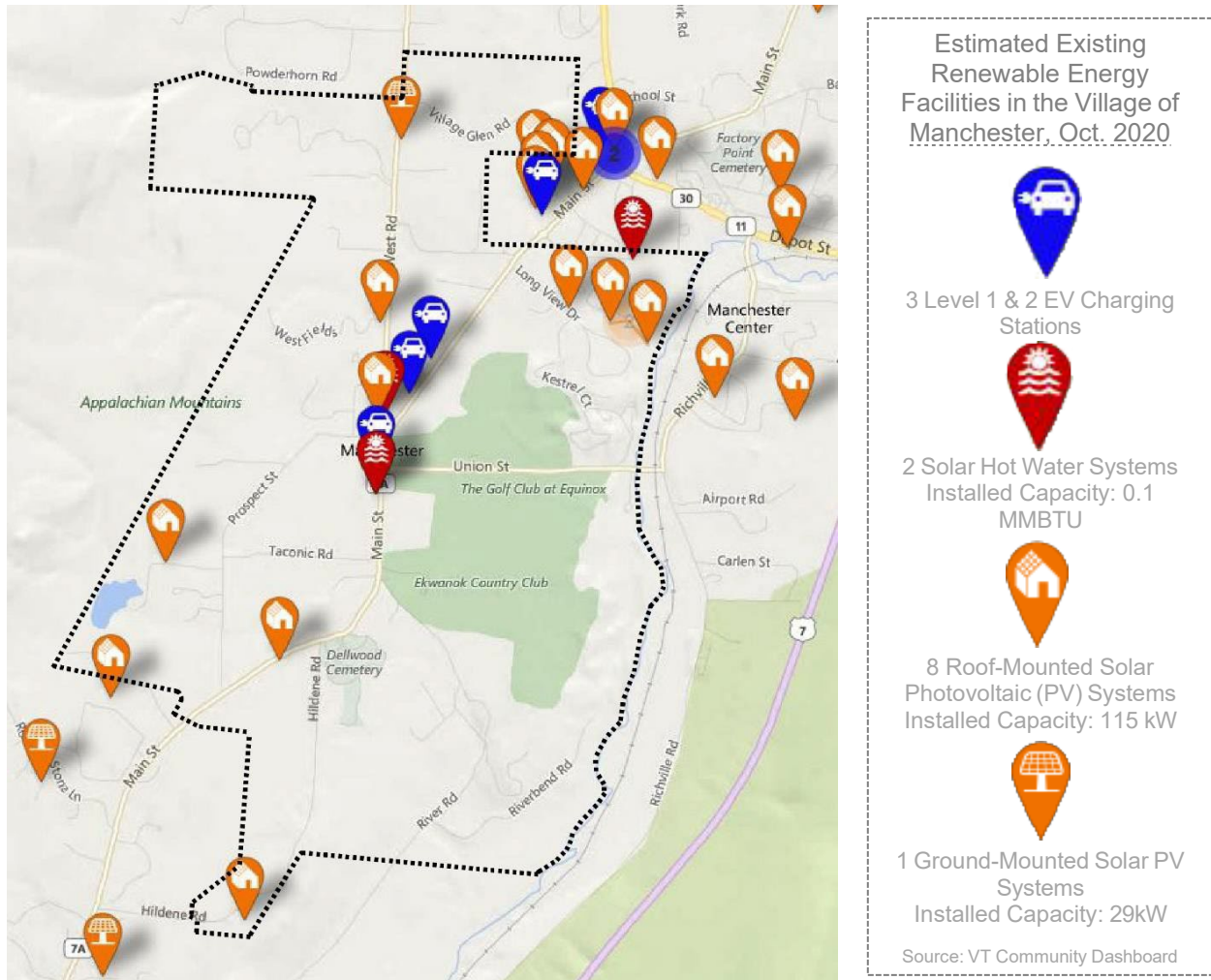
10.7. Local Renewable Energy Generation, Renewables Potential, and Policies

Nearly all energy consumed in the Village of Manchester is currently imported in the form of gasoline, oil, propane, and electricity. Some imported electricity is powered from renewable sources, primarily the electricity purchased from hydroelectric generating facilities in Quebec and Labrador, Canada. One site, Hildene, reports significant levels of wood heating, and BBA and the Taconic Hotel report modest levels of cord wood heating. Today limited energy production occurs in the Village in the form of numerous rooftop solar arrays (approximate total installed capacity of 145 kW) and several residential solar hot water heaters. At least one local business and one independent school have placed solar panels on the rooves of their buildings: Hildene (23.51 kW installed capacity) and the Maple Street School (68.7 kW installed capacity).

There are more areas in the municipality where specific scales of solar development are appropriate. The Village encourages clean, non-polluting energy sources that lower greenhouse gas emissions and improve efficiency. However, the appearance and location of renewable energy facilities and structures is a significant area of concern in this scenic and seasonal-tourism-supported community.

The renewable resource map analyses, which comply with Act 174 standards for renewable resource mapping (for more details, see Bennington County Regional Energy Plan, pages 80-83), in this section are intended to provide information about renewable resource availability in the Village. Maps were generated using GIS (geographic information systems) data layers developed by VCGI (the VT Center for Geographic Information). Renewable resource layers were mapped, and then 'Known Constraints' (vernal pools; river corridors; floodways; state significant natural communities and rare, threatened, and endangered species; national wilderness areas, and class 1 and 2 wetlands) were removed entirely from available resource areas. Then 'Possible Constraints' (VT agriculturally important soils; special flood hazard areas; protected lands; deer wintering areas; conservation design highest priority forest blocks; and hydric soils) were overlapped with renewable resources to highlight resource areas with potential complications for developing generation facilities. Remaining resource areas that do not overlap with any environmental constraints are considered 'Prime' resource areas, and resource areas that overlap with Possible Constraints are considered 'Secondary' resource areas.

Below is a map of known, existing renewable energy facilities in the Village as of October 2020:



Siting of Renewable Energy Generation Facilities and Section 248 Proceedings

The Village of Manchester principally implements its Plan of Development through the Zoning Bylaws. Not all development in the Village can be regulated by the Zoning Bylaws. The State of Vermont, through the Public Utility Commission (PUC), has exclusive jurisdiction over development in the areas of solar and wind electric power generation. In 2016, Act 174 authorized municipalities to identify through the municipal plan local resource areas where renewable energy development should be restricted in ways comparable development is already restricted to protect valued resources.

This section of the Plan is intended to assist the PUC in making its decisions about the siting of renewable energy facilities within the Village by clearly stating standards for the PUC to implement in reviewing projects. The Village may also choose to petition for status as a party in proceedings under 30 V.S.A. § 248 to provide testimony on these standards and other local concerns.

Local Constraints – Act 174

The Village is a year-round resort and vacation destination that depends the beauty of the area in which it is located, and the historic qualities of the Village itself. The preservation of the historic village setting, and its natural surroundings is critical to both the Village's economic vitality as a vacation destination for regional population centers.

Local Constraints: Policy in this energy plan is consistent with the Manchester Village Plan of Development and Zoning Bylaws which aim to preserve "historic structures and scenic streetscapes." The Village of Manchester is a designated Design Control District with three specific sub-districts. The Historic Core Sub-District located in the historic center of the Village is the most restrictive district. The Preservation Sub-District which extends along major Village roads is the next least restrictive. The General Review Sub-District encompasses the remainder of the Village and has the least restrictive design criteria. (see location in Figure 11, Solar Map Preferred Sites). The Historic Core and Preservation sub-districts state that "design should be compatible with the area and should be appropriate for a traditional late 19th and early 20th century village", which further goals for historic and scenic resource preservation.

Within the Historic Core and Preservation Sub-Districts, structures which support solar panels would be classified as non-conforming structures due to the materials and aesthetics of their construction and thus would be prohibited within these two sub-districts. However, if structures which support solar panels are at undisturbed grade with a height of not more than 2 feet, they would be classified as landscape structures and thus would be allowed in these two sub-districts as long as they conform to the Solar Screening Ordinance.

Accordingly, the Village is placing restrictions on the development of solar and wind facilities within the entire village (Design Control District) as detailed in the sections to follow and in the Solar Screening Ordinance. Also identified as a unique resource to be preserved in the Plan of Development and the Village Scenic Resource Inventory are the open space, public recreational lands of the Equinox Preservation Trust. Accordingly, solar and wind energy facilities are restricted in these areas as detailed in the sections to follow.

Solar

There is abundant solar resource throughout low-lying areas of the Village, and much of this resource is unrestricted by state-identified environmental constraints. See 'Prime' and 'Secondary' resource areas and preferred solar sites in the Village Solar Resources and Preferred Sites Map. All solar energy facilities must comply with the Village's siting and screening requirements outlined below and in the Solar Screening Ordinance.

Preferred areas for solar facilities include the following areas:

- Parcels of land in the General Review Sub-District as noted in the Preferred Solar Sites map, Figure 11. These parcels are of sufficient size to accommodate setback and screening requirements in the Solar Screening Ordinance.
- Roof-mounted systems which conform to the Solar Screening Ordinance.
- Parking lot canopies
- Community solar projects;
- Systems located in close proximity to existing large scale, commercial or industrial buildings;
- Proximity to existing hedgerows or other topographical features that naturally screen the entire proposed array,
- Facilities that are sited in disturbed areas, such as gravel pits, closed landfills, former quarries, or water treatment facilities,
- Additional preferred sites may be identified with the support of the Village Board of Trustees and Planning Commission.

Solar Scale Examples



Images are indicative of 2020-and-previous technology.

The Village encourages solar development at specific scales in residential and commercial areas throughout the Village and sets forth the following definitions and policies to guide solar energy development. Small- and mid-scale solar arrays typically range from 1 to 15 kW for residences and up to and including 150 kW for small commercial properties or community solar projects. The Village **strongly supports the development of small- and mid-scale solar facilities on rooftops and on ground-mounted facilities at homes, businesses, and public lands in accordance with the Solar Screening Ordinance. In particular, the Village values potential community solar projects**, which offer access to renewable energy for people whose land parcels may otherwise lack access to the benefits of solar energy generation. Utility-scale solar arrays, which primarily produce energy for sale to the electric grid, are larger than 150 kW and range up to several MWs' worth of capacity. **Utility-scale solar facilities are only permitted in designated preferred sites in the General Review Sub District and are subject to all requirements in the Solar Screening Ordinance.**

The Bennington County Regional Energy Plan has calculated future solar generation targets for its member municipalities to help guide local renewable energy development. Since the Village of Manchester is home to about 15% of the Town of Manchester's population and occupied households, the Village has a 2050 solar generation target of 1.5 MW of new solar capacity to meet local electric energy demand. It is estimated that at most 25% of this target may be met through rooftop solar. The resource areas identified in the Village Solar Resource Map are sufficient to meet this target. Resource areas in preferred sites total about **325 acres**, contained on over 30 separate properties.

Solar energy policies must consider the constantly evolving nature of energy technologies. As capacity and diversity of solar energy systems increase over time, the policies presented here shall be reviewed to reflect relevant updates in the technology.

Solar Siting Requirements, and Prohibited Areas

Siting & Screening Requirements: Solar facilities shall be screened to mitigate their visual impacts and shall comply with the municipal solar screening ordinance. Facilities shall not be sited in locations where screening and design are insufficient to mitigate adverse impacts to scenic views, roads, or other valued sites identified in the Scenic Resources Inventory, including the following areas: views across open fields, which form an important foreground; prominent ridgelines or hillsides that can be seen from many public vantage points and thus form a natural backdrop for many landscapes; historic buildings and districts and gateways to historic districts; and scenes that include important contrasting elements such as water. The impact on prime and statewide agricultural soils currently in production shall be minimized during project design.

Solar facilities must be carefully sited and screened in accordance with the Solar Screening Ordinance so that they do not diminish or detract from the historic character of the village.

Design Control Districts: Within the Historic Core and Preservation design control districts, utility-scale solar systems are expressly prohibited. Any small- and mid-scale solar systems must comply with the Solar Screening Ordinance. The Solar Screening Ordinance outlines specific requirements and recommendations for harmonizing solar installations with the scenic and historic appearance of development in the village center.

Equinox Preservation Trust Lands: Solar and wind facilities are not permitted on Equinox Preservation Trust lands, excepting installations of small- and mid-scale facilities that further the open space and recreational purposes of the land.

Unsuitable (Prohibited) Areas: In addition to those areas that do not meet the siting requirements set forth above, solar and wind facilities shall be excluded from (prohibited within), and shall not be supported by the Village, in the following locations:

- Act 174 Known Environmental Constraints

- A location that would significantly diminish the economic viability or potential economic viability of the municipality's working landscape, including productive forest land and primary agricultural soils (as defined in Act 250 and as mapped by the U.S. Natural Resource Conservation Service);
- A location that would fragment or significantly compromise the ecological functions of highest priority forest blocks and habitat corridors as mapped by VT ANR and resilient landscapes as mapped by The Nature Conservancy;
- Steep slopes (>25%);
- Surface waters and riparian buffer areas (except for stream crossings);
- Ridgelines or other landscape features where the facility would be prominently visible against the skyline from public vantage points such as roads;
- A site that causes adverse impacts to historical or cultural resources.

Wind

The Village currently has no wind generation facilities connected to the grid, which is likely due to the fact that the Village, at its low altitude, has very low recorded wind speeds (see Figure 12, Village Wind Resource Map). Given the absence of identified wind resources in the municipality, it is not likely that wind energy facilities of any scale will be able to supply significant energy to the Village.

For the purposes of this plan, the Village finds at this time that no scales of wind facilities are appropriate within the Village footprint due to likely unmitigable negative impacts they would have on scenic resources noted in the Scenic Resource Inventory, and also due to the low efficiencies these systems are likely to provide in an area with insignificant wind speeds. This position is consistent with the Village's development goal to limit new development to preserve the Village's late 19th and early 20th century appearance of the community, particularly as viewed from the Main Street.

However, the Village is open to reassessing current policies if the technology develops to mitigate wind power's aesthetic impact on valued scenic resources in the Village.

Geothermal

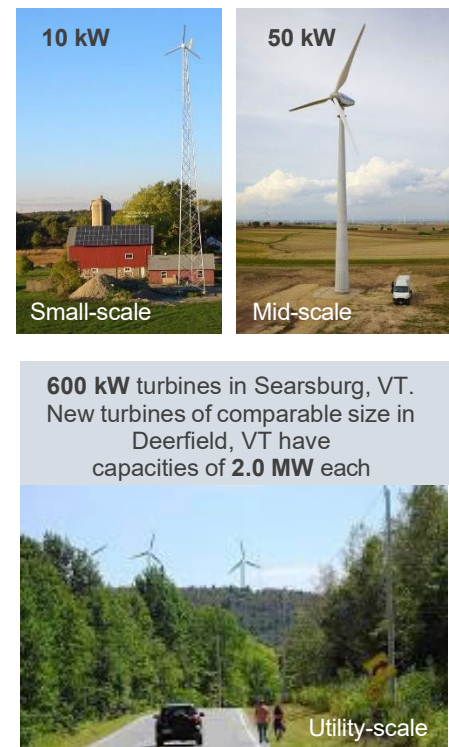
The soils in low-lying, developed areas of the Village have high resource potential for geothermal well heating systems. This technology is highly encouraged in new residential and commercial construction.

Woody Biomass

The Village of Manchester is surrounded by areas with abundant woody biomass resource that may be used for local heat generation – the most efficient use of biomass for energy. High-efficiency cord wood, wood pellet and wood chip heat systems are a good choice for homes and larger buildings such as apartment buildings, schools, and other institutions. Local installations of such large-scale systems include Hildene, which consumes over 20 tons of wood pellets and about 45 cords of wood each year for heating. BBA and the Taconic also use cord wood in a more limited capacity for heating.

When it comes to using biomass for electricity generation, the Village's size is too small to accommodate the type of combined heat and power biomass projects that are considered

Wind Scale Examples



Images are indicative of 2022-and-previous technology.

efficient and suitable for the region. Therefore, **biomass electricity facilities are not appropriate in the Village**. Other plant-derived renewable fuels such as biodiesel can be produced from oil seed crops to support farm operations and to supply businesses in the area.

Hydro

Small-scale systems may be appropriate. Two historic dam sites exist, at Equinox Pond and Way's Lane, and may be evaluated to see if cost-effective and environmentally responsible rehabilitation for energy production as "micro-generators" is viable. New hydroelectric facility development is not currently allowed under State environmental regulations and local hydro is not likely to play a role in the Village's future energy profile.

Large-Scale Energy Storage

Large-scale storage of electric energy in the form of electrochemical batteries has the potential to improve the stability of the electric grid during natural disasters, during peak demand periods, and by allowing more renewable energy sources to serve the system. Storage technologies are rapidly developing and becoming more affordable to deploy, and as technology develops, the role of decentralized storage facilities will become clearer. For now, the **Village supports the development of large-scale electric energy storage facilities in the municipality** as long as they are demonstrably safe for workers and the surrounding environment and comply with setback, screening, and performance standards in the Zoning Bylaw that apply to all commercial development.

10.8. Energy Conservation, Efficiency and Renewable Energy Policies and Strategies

To achieve the energy goals advanced by the state of Vermont, the Village's residents and municipal officials must commit to concrete actions that reflect the transformations required for this undertaking. Achievement of 90% renewable energy by 2050 will depend on improving efficiency, conserving energy, and developing local renewable energy facilities at a steady, resolute pace over the next three decades.

The Village has identified the following policies and actions as the most effective pathways to realize the community's energy planning objectives. Many of the policies indicated here are discussed in more detail in relevant sections of the Municipal Plan, particularly in the areas of transportation and land use. The Village has referenced both the Bennington County Regional Energy Plan (2017) and Act 174 guidance and standards documents published by the Vermont Department of Public Service to prepare these policies.

Municipal Leadership and Land Use Planning

1. Municipal Energy Committee: The Planning Commission has formed an energy subcommittee which will continue to implement this plan and track progress on the policies and actions stated herein. This committee shall promote local residential and commercial efficiency and conservation improvements through coordination of information and technical assistance and advocate for appropriate renewable energy generation throughout the Village.
2. Land Use Policies: Land use policies must promote compact, historical development patterns. Future development shall be concentrated in the dense village center to establish a walkable, multi-use hub of community activity. Continued participation in the village center designation program shall be promoted as a catalyst for this development.
3. Municipal Infrastructure. All municipal infrastructure should be evaluated to identify opportunities for efficiency improvements and renewable energy generation and use. At the Village offices, the viability of installing renewable energy systems shall be assessed. Professional energy audits shall be pursued at the Village garage and encouraged at local schools to identify cost-effective energy saving strategies. The

Village's capital budget program should consider weatherization improvements and upgrading existing thermal and transportation systems to high efficiency electric technologies, including the support of EV charging station installations in the Village.

4. New Development: New development in the Village shall adhere to the state mandated Residential Building Energy Standards, be planned to take advantage of a site's solar resource potential, and be made to accommodate multiple transportation modes through the Site Plan and Subdivision Review processes.

Conservation and Efficient Use of Energy

5. Residential: The Planning Commission energy subcommittee should work with BCRC to coordinate presentations and local conversations that promote residential energy efficiency and conservation through the following programs: the "Energy Star" building performance rating system; educational programming and appliance upgrade rebates available through Efficiency Vermont; and weatherization assistance provided by the Bennington Rutland Opportunity Council (BROC) and NeighborWorks of Western Vermont (NWWVT). Providing information on programs that assist low-income residents and owners of rental units in pursuing weatherization and thermal systems upgrades should be prioritized.
6. Commercial and Industrial: Energy efficiency and conservation may be promoted at these sites in the following ways: by requiring all new commercial and industrial buildings meet the state mandated Commercial Building Energy Standards; by encouraging existing business to explore efficiency and conservation strategies outlined by Efficiency Vermont, which include promoting carpooling and alternative commuting modes among employees, completing energy audits, installing EV charging infrastructure, and upgrading thermal and transportation systems to higher efficiency and electric technologies when possible.

Transportation

7. Electric Vehicle (EV) technology: The Village of Manchester shall support installation of EV charging stations at key locations within the Village. Informational presentations for village residents and business owners on the advantages of EV technologies as well as state and federal rebate opportunities may be coordinated with the assistance of Efficiency Vermont.
8. Public transit: New public transit routes should be explored and pursued, including the potential for additional future bus stops along Route 7A. Installation and maintenance of high quality and ADA accessible amenities at public transit stops such as shelters, benches, bike racks, posted signage and schedules, and park-and-rides should be pursued when possible.
9. Alternatives to Single Passenger Vehicle Commuting: The Planning Commission energy subcommittee, in partnership with BCRC and other groups, can share information with local businesses and institutions on promoting rideshare, vanpool, and car-sharing, on strategies to support seasonal bike commuting, and on using telecommuting to reduce energy expended for work travel. A school campaign to increase ridership of the school bus could create community savings.
10. Complete Streets Design: The Village should assess existing roads for their ability to accommodate safe and convenient walking and biking. Areas for improvement should be prioritized and funding sought to align these areas with Complete Streets guidelines.

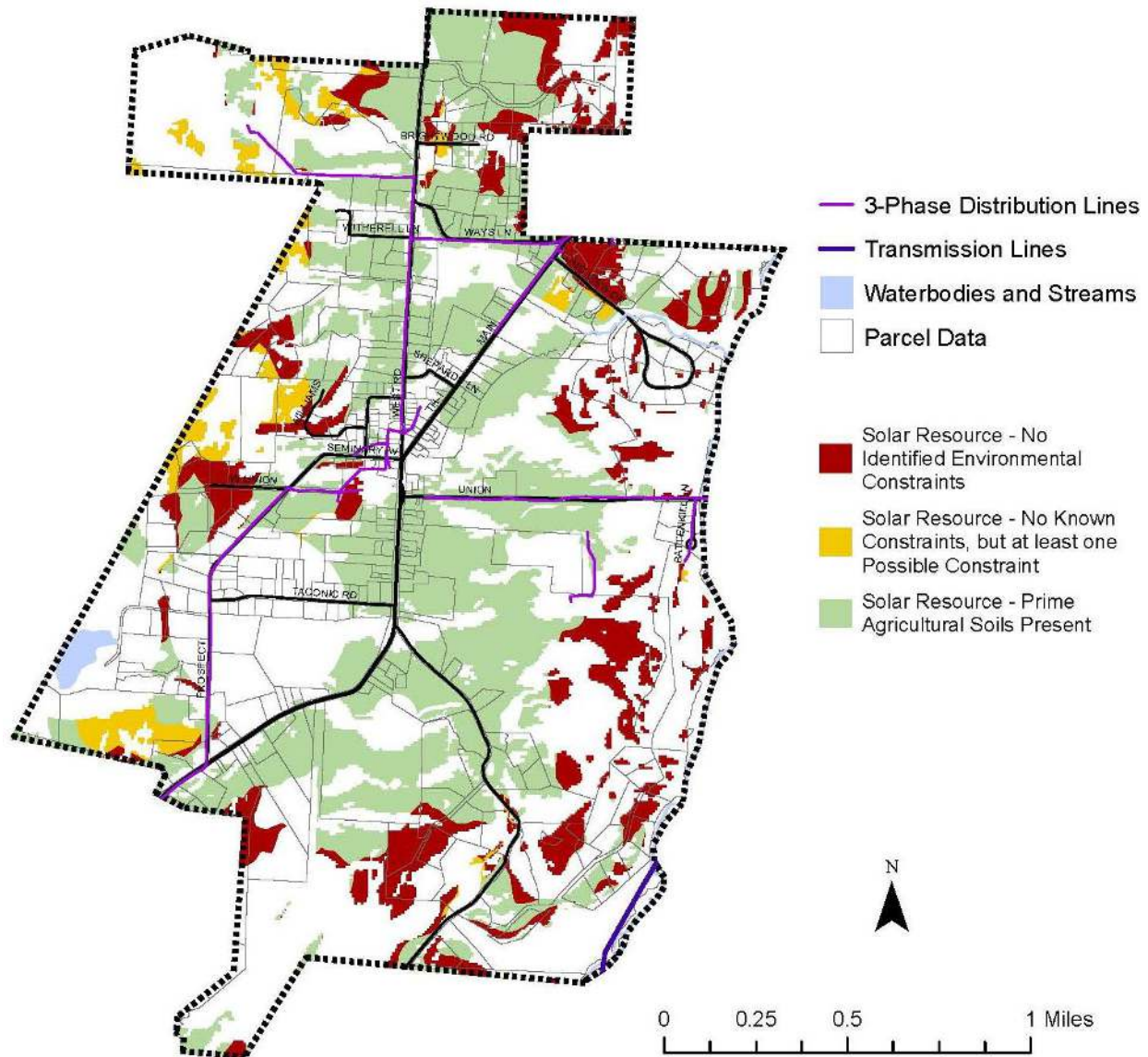
Renewable Energy Development

11. The Village should offset ongoing fossil fuel consumption by developing renewable energy facilities on any appropriate municipally-owned parcels. The Village should support interested residents in developing renewable energy facilities on their properties. The Village should consider trialing use of blended biofuel in diesel-powered municipal trucks and equipment.

Local Food Production

The municipal energy committee can help facilitate dialogue between local/regional food producers and local/regional institutions such as schools, hospitals, and meal delivery or provision programs to enhance the interconnectedness of the regional food system.

Figure 10: Village of Manchester Solar Resource Map



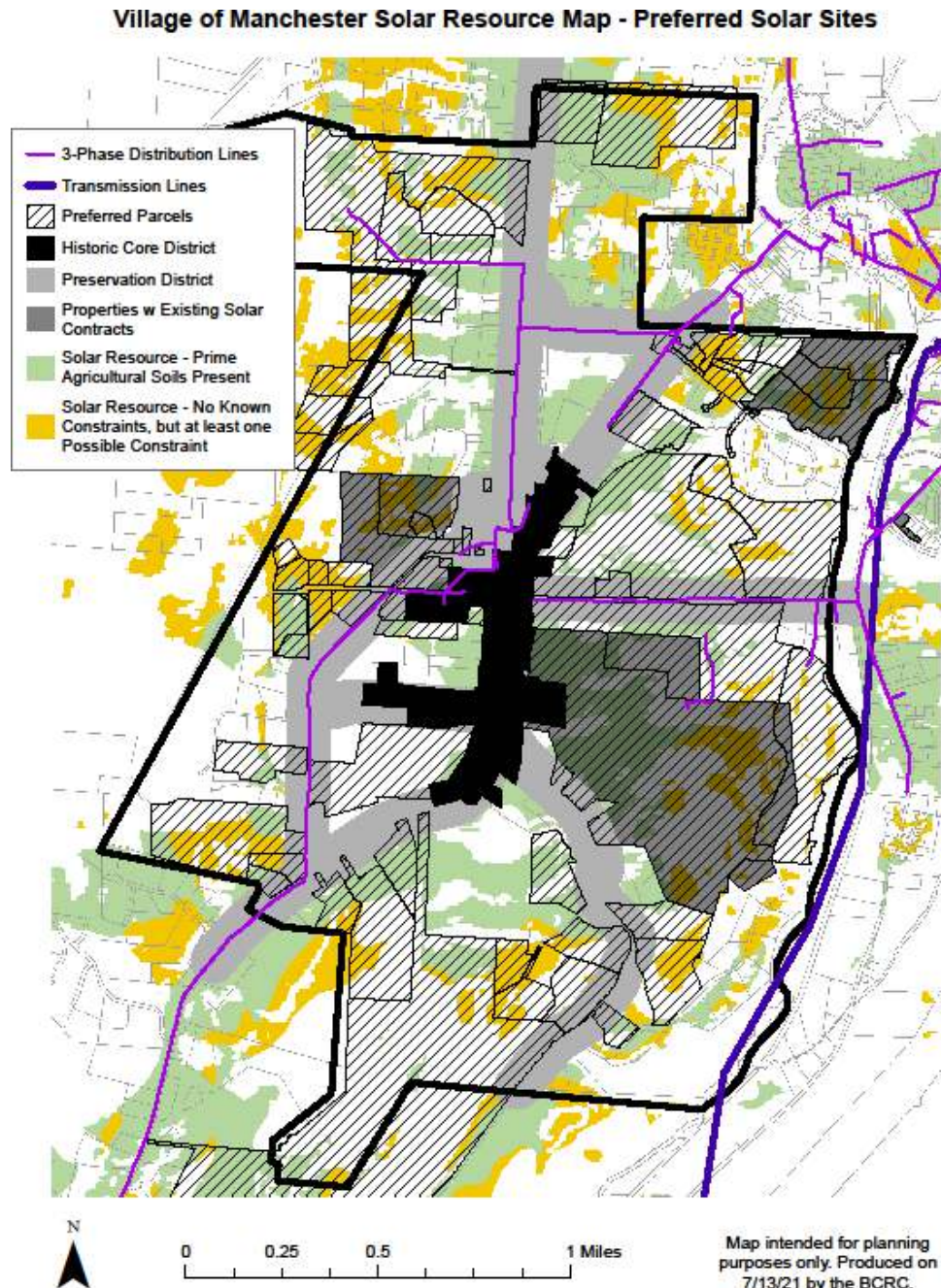
Local Constraints – Restrictions apply within the three design control sub districts as stated above. All solar installations must comply with the Solar Screening Ordinance. Development is restricted on Equinox Preservation Trust lands.

Regional Constraint – Presence of prime agricultural soils is flagged. Special attention shall be paid to preserve agricultural soils for future agricultural activities. If development does occur, efforts shall be made to mitigate impacts to agricultural soils and/or to preserve agricultural soils for future use.

Preferred Sites – See Figure 11: Preferred Sites for Solar Development.

Prime and Secondary Solar Resource Areas – These areas show high levels of solar radiation adequate for solar energy systems. Areas are approximate and based on GIS (geographic information systems analysis). Actual conditions vary. These data layers were developed by VCGI for the purposes of Act 174 enhanced energy planning in Vermont.

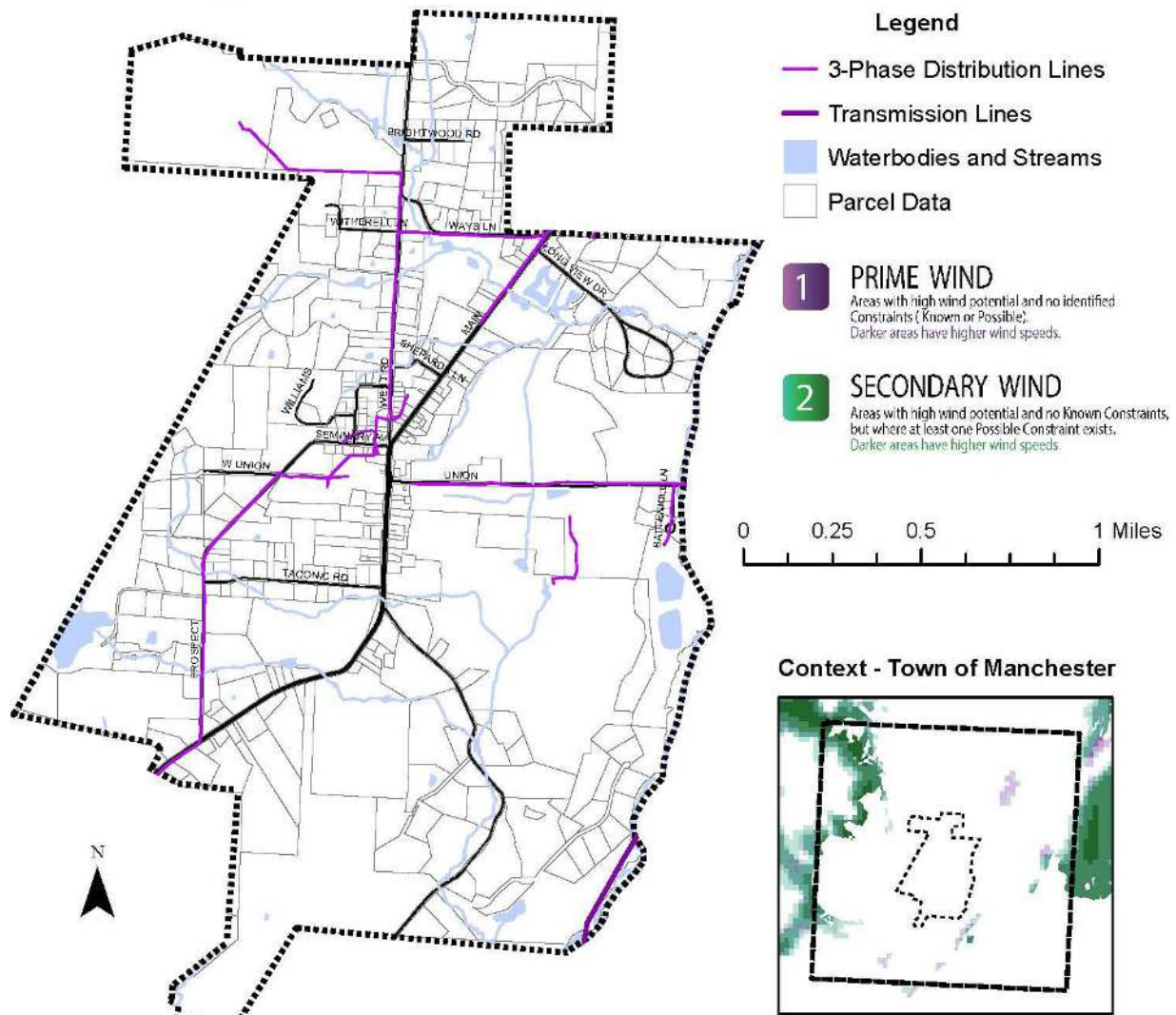
Figure 11:
Village of Manchester Solar Resource Map with Preferred Sites for Solar Development.



Local Constraints – Restrictions apply within the 3 Design Control sub districts as stated above. All solar installations must comply with the Solar Screening Ordinance. Development is restricted on Equinox Preservation Trust lands.

Preferred Sites – Solar development is appropriate in the General Review Sub District and must conform to the siting requirements identified in this document and in the Solar Screening Ordinance.

Figure 12: Village of Manchester Wind Resource Map – Showing No Wind Resource



Local Constraints – Restrictions apply within the 3 Design Control sub districts as stated in previous sections of this plan. The Village Design Control District and all Sub-Districts are not suitable for any scale of wind power development. Development is restricted on Equinox Preservation Trust lands.

Regional Constraints - the Bennington County Regional Energy Plan establishes a regional constraint of 1KM residential buffer for utility-scale wind development.

Preferred Sites – None.

Wind Resource Areas – No areas of high wind speed adequate to support wind energy systems are currently mapped in the Village. Mapped areas are approximate and based on GIS (geographic information systems analysis). Actual conditions vary. Data layers were developed by VCGI for the purposes of Act 174 enhanced energy planning in Vermont.

11.0 IMPLEMENTATION AND COORDINATION

11.1 Implementation

Among the requirements for a municipal plan is a recommended program for the implementation of the objectives of the plan. The following serves to identify those activities that the Village feels are most important to plan implementation. It is noted here that the Village first enacted a zoning bylaw in 1932, and, since that time, it has served as the primary tool for land use and development. The Village also has a comprehensive set of ordinances adopted, and enforced by, the Village Trustees.

11.1.1. Historic Preservation

A major objective of the plan is preservation of Village historic qualities as reflected in architecture, landscaping, and settlement patterns. To this end, the entire Village has been designated a Design Control District. The Design Control District is divided into three sub-districts. To facilitate review within these districts, design review criteria have been developed as part of the Village Zoning Bylaws.

11.1.2. Growth Management

As indicated in the plan, population growth has been very small. In addition, during the same period, there was a shift to a more elderly population with fewer demands for educational services. Higher property values and the cost of housing does, and is likely to continue to, influence family residency, especially with younger children, in the Village. Housing development, on the other hand, resulted in an increase of 413 units or 144% between 1980 and 2010. An increased percentage of the housing stock is for seasonal, recreational, or occasional use, and, in 2010, represented 30% of the total housing stock. Maintaining a desired mix of housing for year-round use versus meeting transient needs requires careful monitoring.

Another important concern for the Village is the extent of commercialization. One of the Village goals is to maintain a desired mix of uses while maintaining the quality of the residential and natural environment. The review of master development plans, cluster and planned unit development provisions, and appropriately zoned areas are fundamental tools for implementation. In this regard, a build-out analysis for commercial and related uses in the Village of Manchester was commissioned and prepared to provide a benchmark from which to evaluate potential change. A copy of that study is available at the Village Office.

11.1.3. Open Space

The protection of open space can be achieved through both regulatory and non-regulatory means. Regulatory protection can occur through site plan design and open land set-aside via clustering or planned unit development. The Equinox golf course development rights were deeded to the Village to allow the Equinox on the Batten Kill condominiums off Union Street. The Village is fortunate in having large holdings, in estates and cultural or historic facilities, such as Hildene or the Southern Vermont Art Center. Retention of these open lands contributes considerably to the open space characteristic of the Village. Natural features such as wetlands, ponds, or other natural resources also contribute to open space. Extensive recreational use, such as the two golf courses and the Orvis Green parcel in the heart of the Village, are also important open space features.

11.1.4. Technical/Professional Assistance

Given the technical and complex nature of some zoning provisions, it is necessary to retain expert assistance (master site plan review, design review, cluster and planned unit

development, etc.). The Village will continue to utilize special expertise as conditions and situations warrant.

11.1.5. Mapping

The State statute requires that certain maps be included with the Village Plan. These are incorporated with this plan and prepared by the BCRC. Because this information can be displayed in a variety of ways and scales, it serves as an important tool in the planning process. The Village should keep the mapped information current, especially when new information is added to the system. The Village may also have a need for special or customized maps for special projects or needs.

11.1.6. Special Housing Needs

Equinox Terrace is a community care home for the elderly constructed in 1986 and is licensed for 76 rooms/beds. It is located on Meadow Lane and contains sixty-seven single rooms and seven double rooms. The adjacent “Meadows” project provides subsidized housing for income eligible households. The feasibility of affordable housing to lower income persons is complicated by the high value of land and buildings in the Village.

11.2 Coordination and Relationship to Other Plans

The principal areas of coordination, especially with respect to land use planning, is with the Town of Manchester (Town Plan) and the Bennington County Regional Commission (Regional Plan). Consistency, or at least avoiding significant inconsistencies, between and among these jurisdictions is encouraged in the State Planning and Zoning Act.

11.2.1. Town of Manchester Plan and Bylaws

The Town of Manchester Plan is substantially consistent with the land use classifications bordering the Village. Density requirements vary somewhat, but this variance is intended to maintain, as much as possible, the historic settlement patterns and open spaces in the Village, as advocated in the Village Plan. The Village complements the Town, as a major attraction for tourism and recreation. Both the Village and Town seek to maintain the quality of the environment. The north, south, and east perimeter of the Village has rural residential designations similar to those of the Town. The westerly, very low residential density and forest designations, are consistent with the Forest and Recreation designation of the Town. The Village of Manchester seeks to avoid excessive strip development. Since Main Street is a vital link between the Village and Town, it is important to understand, coordinate, and manage the movement of people, goods, services, and land uses along this constrained corridor. Similarly, some of the rural residential roads, such as West Road, in the Village and Town serve as a type of bypass of the Town center. The implications of land use decisions, on or in conjunction with road improvement investments, or lack thereof, need to be considered jointly by the Village and Town.

11.2.2. Bennington County Regional Plan

The Bennington County Regional Plan was adopted March 19, 2015. Land use classifications in the Regional Plan, which encompass the Village include: Village, Urban, and Rural, and Historic Preservation designations. Together, the Village and Historic classifications of the Regional Plan reinforce the Village Plan and bylaw, which seek to preserve historic settlements, buildings, and places, while providing for economic growth, housing, and other needs. The Regional Plan states that: “A variety of residential, commercial, industrial, and cultural and recreational uses is appropriate in villages, but at a significantly smaller scale and lower density than in urban centers.

Public investments and private initiatives should support growth in existing or planned village areas. New development should respect the small scale and historic character of existing village development.” The Village of Manchester Plan agrees that development should remain small scale to retain the historic character of the Village. The Rural land use district of the Regional Plan encompasses more than half of the Village area, and corresponds closely to the Village Plan's Rural Residential land use districts.

APPENDIX

Statutory Requirements

The Vermont Municipal and Regional Planning and Development Act encourages towns and villages to develop plans that are compatible with the plans of other municipalities and with the regional plan, and which are consistent with the goals that are contained in 24 V.S.A. § 4302. The following section will detail this plan's consistency with those goals and will include a brief discussion of the Village of Manchester Plan of Development in the context of the Bennington County Region and nearby 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 element of the Plan.

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.

The Village of Manchester has a long-established planning process implemented through the trustees, boards and commissions, staff, the Plan, Design Control Districts and Zoning Bylaws, and through active participation in the Bennington County Regional Commission. Citizen participation is actively encouraged at all stages of the planning process; Planning Commission and Board of Trustee meetings are open to the public and an effort is made to encourage attendance by citizens with an interest in topics being discussed.

Recognition must be given to the fact that the impacts of growth and development do not stop at the Village boundary. Cooperation and consultation with the Town of Manchester and the Bennington County Regional Commission ensures that the inter-municipal and regional effects of growth and development can be properly evaluated.

Citizens are encouraged to join or otherwise involve themselves with local boards, commissions, and organizations, such as the Planning Commission, Design Advisory Committee, Development Review Board, and Board of Trustees, as well as regional organizations like the Bennington County Regional Commission, Bennington County Industrial Corporation, and the Regional Affordable Housing Corporation.

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

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

The Village of Manchester places a high value on maintaining historic qualities of the Village. One of the goals of the Village is to maintain a small, rural, primarily residential late 19th early 20th century appearance. The preservation of historic structures, architectural details, historic scenic streetscapes, mountain and valley streetscapes, open space and scenic views, and land use patterns is very important to the Village. Maintaining traditional neighborhood lot sizes and densities is also a priority.

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 economic development section discusses economic sectors that the Village supports and would like to expand on, such as hospitality, small-scale retail, restaurants, internet-based and home-based businesses. The Plan also looks at the various industries and occupations that currently exist in the Village.

The Northshire Economic Development Strategy and Implementation Plan is also discussed.

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

Educational institutions located in Manchester Village and the Town of Manchester are discussed. In addition to the local educational facilities, the Plan includes an overview of education opportunities available in the region, such as colleges, adult education facilities, and other training and continuing education opportunities, all available within 30 miles of the Village.

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 bicycles.

The Plan discusses the main transportation routes through the Village, measures to reduce traffic flow and to increase safety for pedestrians and cyclists, scenic routes, the Shires Byway, and public transit options. Providing safe and adequate transportation for residents and visitors, while preserving the Village character, is a priority of the Village.

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

The Village of Manchester aims to preserve its open lands that have historical or cultural value that contribute to the retention of views extending across open spaces that show the Village landscape, which is essential to viewing the historic settlement pattern. Other open lands that contribute to the preservation of natural resources and the retention of natural ridgelines are also to be protected by the Village. In addition to these open spaces, preservation of historic buildings is also a priority. All these areas are highly valued and fully discussed in the Plan. And through Design Control regulations and Zoning Bylaws, the Village aims to protect and maintain these areas.

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

Maintaining the quality of air, water, wildlife, and land resources is a priority of the Village. In the Plan, areas that should be protected and preserved from destruction, diversion, or pollution are discussed. The Village contains a number of rare plant, animal, and natural communities that should also be protected. In addition to these sensitive areas, the Plan states that every effort must be made to avoid causes of pollution, including the development of industrial facilities that could have a negative impact on the water supply, atmosphere, or other aspects of the environment.

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

The Village Plan advocates and encourages energy efficiency in all buildings, and clean, non-polluting sources and emissions in the Village. The Plan also discusses the siting of solar and wind electric generation facilities and cell towers.

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

The Plan discusses the vast amount of trails maintained by the Equinox Preservation Trust and the Southern Vermont Arts Center. Other recreational areas such as, two golf clubs, the Hildene property, the Batten Kill and various open spaces all contribute to the Village's recreational offerings.

9. To encourage and strengthen agricultural and forest industries.

There are no forest industries located in Manchester Village, nor are there any commercial agricultural operations. However, the Plan states that open lands may contain prime agricultural soils, and that such soils should be evaluated and considered in site plans, where necessary.

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 Village Plan discusses the different natural resources found in the area and within the village boundary, and states that the Plan neither encourages nor provides for commercial extraction or processing of earth resources. The Plan also states that natural resources require protection and preservation by the Village.

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

The plan discusses different organizations that build, manage, and support affordable housing in the region. The plan also mentions the affordable housing options available in the area. It is mentioned that affordable housing is difficult to develop in the Village of Manchester due to the high property costs. However, there are currently 36 affordable housing units available in the Town of Manchester.

The Plan also recognizes the increased need for convenient and safe housing for elderly residents. Equinox Terrace, a community care home, is discussed and considered a great asset to the community.

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

The Village receives the majority of its services from the Town of Manchester. The community facilities section discusses public facilities, services and programs available to Manchester Village residents. The Community Facilities section also includes a current financial analysis of the Village.

13. To ensure the availability of safe and affordable childcare.

The Plan states that childcare centers and family childcare homes are vital to the area's economy, and that the Village encourages quality childcare services.

14. To encourage flood resilient communities.

The Village Plan contains an extensive section on flood resilience. Some of the topics covered in this section include special flood hazard areas, river corridors, fluvial erosion hazard areas, limiting risk from flooding, ERAF standards and hazard mitigation plans, participation in the NFIP, and recovery after a flood.

The section also includes information on the Village's Flood Hazard Ordinance and regulations to protect mapped FEH areas within river corridors.

Consistency with 24 V.S.A. § 4382		
1	A statement of objectives, policies, and programs of the municipality to guide the future growth and development of land, public services and facilities, and to protect the environment	Section: 2.0
2	A land use plan, consisting of a map and statement of present and prospective land uses, indicating those areas proposed for forests, recreation, agriculture (using the agricultural lands identification process established in 6 V.S.A. § 8), residence, commerce, industry, public, and semi-public uses and open spaces reserved for flood plain, wetland protection, or other conservation purposes; and setting forth the present and prospective location, amount, intensity, and character of such land uses and the appropriate timing or sequence of land development activities in relation to the provision of necessary community facilities and service	Sections: All of Chapters 3.0 and 5.0 Maps: 3-1, 5-2, and 5-3
3	A transportation plan, consisting of a map and statement of present and prospective transportation and circulation facilities showing existing and proposed highways and streets by type and character of improvement, and where pertinent, parking facilities, transit routes, terminals, bicycle paths and trails, scenic roads, airports, railroads, and port facilities, and other similar facilities or uses, with indications of priority of need	Sections: All of Chapter 8.0 Map: 8-1
4	A utility and facility plan, consisting of a map and statement of present and prospective community facilities and public utilities showing existing and proposed educational, recreational and other public sites, buildings and facilities, including hospitals, libraries, power generating plants and transmission lines, water supply, sewage disposal, refuse disposal, storm drainage, and other similar facilities and activities, and recommendations to meet future needs for community facilities and services, with indications of priority of need, costs and method of financing	Sections: 3.5, 3.6, and all of Chapter 9.0 Map: 9-1
5	A statement of policies on the preservation of rare and irreplaceable natural areas, scenic and historic features and resources	Sections: All of Chapter 3.0
6	An educational facilities plan consisting of a map and statement of present and projected uses and the local public school system	Section: 9.1 Map: 9-1

7	A recommended program for the implementation of the objectives of the development plan	Sections: All of Chapter 10.0
8	A statement indicating how the plan relates to development trends and plans for adjacent municipalities, areas and the region developed under this title	Sections: 10.2, 10.2.1, and 10.2.2
9	An energy plan, including an analysis of energy resources, needs, scarcities, costs and problems within the municipality, a statement of policy on the conservation of energy, including programs, such as thermal integrity standards for buildings, to implement that policy, a statement of policy on the development of renewable energy resources, a statement of policy on patterns and densities of land use likely to result in conservation of energy;	Sections: 9.8 and 9.9
10	A housing element that shall include a recommended program for addressing low and moderate income persons' housing needs as identified by the regional planning commission pursuant to subdivision 4348a(a)(9) of this title. The program should account for permitted accessory dwelling units, as defined in subdivision 4412(1)(E) of this title, which provide affordable housing	Sections: 5.3, 5.4, 5.5, 5.6, 5.7, and 5.8
11	An economic development element that describes present economic conditions and the location, type, and scale of desired economic development, and identifies policies, projects, and programs necessary to foster economic growth	Sections: All of Chapter 6.0
12	<p>A flood resilience plan that:</p> <p>(i) identifies flood hazard and fluvial erosion hazard areas, based on river corridor maps provided by the Secretary of Natural Resources pursuant to 10 V.S.A. § 1428(a) or maps recommended by the Secretary, and designates those areas to be protected, including floodplains, river corridors, land adjacent to streams, wetlands, and upland forests, to reduce the risk of flood damage to infrastructure and improved property; and</p> <p>(ii) recommends policies and strategies to protect the areas identified and designated under subdivision (12)(A)(i) of this subsection and to mitigate risks to public safety, critical infrastructure, historic structures, and municipal investments.</p>	<p>Sections: All of Chapter 4.0</p> <p>Map: 4-1</p>