

BRIGHTON TOWN PLAN

Adopted October 17, 2018]

INTRODUCTION

The Town of Brighton is a vibrant and resilient community with residents and leaders actively working to improve its future. The town has a rich and unique history grounded in the Vermont doctrine of freedom and unity. Our past has been one based in natural resource use that has left a legacy that is visible in our landscape and continues to influence the character of our community. While we are indebted to our past, the Town's recent history has been one of transition. The changes that have affected our town mirror those influencing our region and much of the state.

The local economy is no longer heavily reliant on manufacturing or railroads, yet it remains based on natural resources. Today, outdoor recreation and an enviable quality of life in a forested, mountainous environment are more important. The town has transformed itself from a timber and rail town into a seasonal vacation destination. This transformation has not been without costs to tranquility, to the landscape and to the insular nature of the community. Brighton has managed, however, to retain many of the best elements of its past and merge them with a modern economy driven by tourism, technology, accessibility, and a respect for its natural and social heritage.

The Brighton Town Plan, a living, working document, is intended to function as a reference tool. The plan results from information gathered in the community through discussions, at public meetings, fact-finding sessions, and from the views of residents serving on locally elected bodies. The Planning Commission and the Selectboard meet regularly every two weeks (see posted "Regular Meeting Notice". These meetings are open to the public. The boards set their regular meeting schedule for the year right after Town Meeting in March.

The town plan presents existing conditions and lays out goals and objectives for Brighton's future development. These goals and objectives should be used by local leaders, residents, and landowners as a guide for making land use decisions. As circumstances change, so will the needs and opportunities of the community. Therefore, the plan should be reviewed on a regular basis.

GENERAL DESCRIPTION

Brighton is a small, picturesque town in rural Essex County, Vermont. Within Brighton, the unincorporated village of Island Pond serves the community and economic center, as it has throughout Brighton's history. Situated halfway between Portland, Maine and Montreal, Quebec, Brighton was once a thriving railroad town. The village of Island Pond is situated along the shores of the similarly named 600-acre lake with a 15-acre island. It is one of the few villages in Vermont with a commercial downtown adjacent to a lakeshore. From the south side of the lake the village and lake are set against Bluff and Dolloff Mountains. From the downtown there is a postcard view across the lake of the Seneca Mountain Range and other mountains. The town lies approximately sixteen miles south of the Canadian border and 23 miles southeast of the City of Newport, Vermont. Surrounding Brighton are towns and unorganized towns of similar shape and size: Morgan, Warren Gore, and Avery's Gore to the north, Lewis and Ferdinand to the east, Newark to the south, and Westmore and Charleston to the west.

HISTORY

While town plans are focused on the future, a reflection and consideration of the past can be crucial to a town's sense of identity. The history of Brighton is a rich one, and offers the town many opportunities to establish strong and lasting connections between local and outside interests.

Few settlers came to the northern Essex County area until after the Revolutionary War had been fought and won, coming slowly at first. The first settlers arrived from Rhode Island, Connecticut, and Massachusetts, beginning in the 1780s. Colonel Joseph Nightingale and sixty-five others purchased the township formerly named Gilead in 1781. The group chose the unusual name, Random, for the township owing its coinage to the site's original purchase as a random land tract from the state of Vermont. The residents later renamed the largest lake in the area, originally named Knowlton Lake, to Island Pond (from the Abenaki word *Menanbawk* which literally translates to island pond) which also became the name of the village. In 1832, the town residents changed the name Random to its current name of Brighton. In March of the same year, Brighton was formally organized.

The town grew slowly over the first half of the 19th Century, most likely attributable to the relative isolation of the township in a rugged, and often harsh, environment. Travel was difficult, often limited to sleds and snowshoes through the long winter season. Early water supplies flowed from springs atop Bluff Mountain, and were distributed through town by its own pressure. The town's first post office did not appear until 1849, providing further evidence of Brighton's remote character and slow growth. In 1850, the town had 193 residents, but just a few years later Brighton experienced its first large growth period. The Atlantic & St. Lawrence Railroad began traveling through Brighton in 1853, and the town thrived as the midway point between Montreal and Portland, Maine. Portland was attractive to Canadian interests because it was an ice free port which allowed for efficient export of goods and merchandise to Europe. In 1853, a U.S. Customs Office also opened in Island Pond luring new residents to Brighton from the ranks of railroad crews and their families. During this time, the town's population grew ten-fold. The region's timber industry also contributed to the growth of the town as the railroad proved convenient for lumber transport. Many lumber mills, powered by water, were erected in Brighton. When much of the land was cleared of timber, farms appeared, rounding out Brighton's rural landscape. The railroad station, built in 1903, housed the U.S.

Customs office and accommodated visiting railroad crews in a bunk area. There was also a lock-up for customs violators. The U.S. Customs office closed its doors in Island Pond in 1973, moving its remaining operations to the town of Norton, sixteen miles to the north. The railroad donated the depot to the Town in 1990.

One cannot overestimate the significance of the railroad to the history, development and character of Brighton. At the peak of operations in World War I, many crucial supplies moved through the town destined for Europe. Many troop trains ran through Island Pond, especially in the final years of the war. These trains transported Canadian wounded soldiers back to their homeland. Later the war shipping gave way to the transport of items such as hay, milk, pulp, coal, wheat, and lumber. In the 1940s, the railroad again played a role in the transport of goods for the next war effort, although on a smaller scale. Today, fewer trains pass through Brighton, but they still carry Canadian wood pulp, supplies for the paper industry, and container cars in transit. The railroad station was renovated in 1991 and now houses a bank, the Police Station and some office space. The station's grandeur has survived, and its existence is a testament to the vitality and uniqueness of Brighton's rail past.

Today, Brighton is a community of over 1,200 residents, with the majority living in the village of Island Pond. Like many Vermont towns, Brighton has experienced its share of setbacks —such as the closure in 2000 of an Ethan Allen manufacturing facility, a major employer in the community. The town also faces the problems of most small towns, such as maintaining and providing expensive municipal infrastructure and services. Brighton has, however, accomplished many important projects in recent years —the renovation of the historic train depot, a library renovation, a new pedestrian bridge and community welcome center, a new park pavilion, a new lakeshore walk path, as well as several infrastructure projects. The Town Hall “Opera Block” has undergone a stunning \$600,000 restoration project that restored lost architectural features of the 1889 structure. Other re-vitalization projects, including a downtown infrastructure re-build and marketing analysis, are in the planning stages. Brighton residents continue to participate in a community visioning process, most recently with the Vermont Council on Rural Development, which held several community meetings to collect information from residents and then established committees to work on ways to address problems and explore new opportunities for the community. Identifying and taking advantage of opportunities and meeting important local needs and desires make this town plan an important guide for the future.

SECTION I: VISION & PURPOSE

Brighton is a small rural town blessed with striking natural beauty and an abundance of natural resources that have benefited residents and attracted visitors for many years. The future success of Brighton will depend upon an active citizenry and the wise use and preservation of our clear rivers, lakes, forests, mountains and unspoiled scenic resources.

In accordance with 24 V.S.A. Chapter 117, section 4302, the town of Brighton is charged with engaging in a planning process that furthers the following general goals:

1. To establish a coordinated and comprehensive planning process that will guide Brighton's future decisions.
2. To encourage citizen participation in the planning process to ensure that decisions are made at the most local level possible by those affected.
3. To encourage Brighton residents to consider the use of resources and the consequences of growth and development in the community and the region.
4. To develop and implement the plan's goals through a creative and cooperative process.
5. To manage forestlands so as to maintain and improve forest blocks and habitat connectors.

SECTION II: LAND USE & ZONING DISTRICTS

Brighton and the village of Island Pond enjoy a rich diversity of natural resources. In addition to its well-known lake and island, Brighton is home to McConnell, Spectacle, and Beecher Ponds, and other smaller ponds. The majority of the landscape is covered by boreal forests and wetlands providing an amazing diversity of wildlife and vegetation. Mountain ranges surround Island Pond and the nearby Nulhegan Basin. Besides 600-acre Island Pond Lake, numerous smaller lakes and ponds are scattered around the town. Island Pond is the headwaters for the Clyde River. Brighton State Park and its extensive trail system provide opportunities for residents and visitors to enjoy camping, sightseeing, hiking, swimming, boating, cycling, and cross country skiing. Over one hundred miles of snowmobile trails, part of the VAST network, blanket the town and region. There is also a budding ATV trail system in town. The Town borders on the most isolated part of Vermont, and for many, Island Pond is the gateway to the northern forest. Homes and historic buildings set within this wonderful landscape provide Brighton with a beautiful, unique, rural character that must be preserved.

The second largest land use in Brighton is agricultural and open land, comprising approximately 14% of the total (4,900 acres). Open water covers approximately 700 acres, or 2% of the total. Developed land (the built environment) also accounts for 2% of the total acreage in Brighton. The greatest concentration of development is in Island Pond at the northern end of the lake. The remaining land consists of scattered development amidst lakes and ponds, railways, and roads.

Various maps are produced for this plan. One map identifies resources and resource constraints for development; another is a land use cover map that depicts existing land uses in the town. Maps were developed by the Northeastern Vermont Development Association as part of the planning process. NVDA was able to interpret land usage from 1999 orthophotography and 2003 agricultural aerial photography. From the orthophotography, one can clearly see that the majority of land in Brighton is forested. The town of Brighton contains approximately 35,000 acres of land. Approximately 29,000 acres, or 82%, are forested. This predominance of forested land use is similar to other towns in Essex County. Local forests are important for outdoor recreation, commercial timber harvesting, woodlots, hunting, and maple sugaring. Brighton residents place great value in the large amount of open land available to the community as tourism and outdoor recreation are important to the local economy.

Zoning Districts:

The Town of Brighton Zoning Map shows a division of the town into land use districts. Prospective uses are largely a continuation of present uses with the exception of the industrial district, which may require land acquisition and investment in infrastructure in order to create an industrial park.

The zoning map officially entitled "Brighton Zoning Map" is part of the town's official zoning bylaw.

V – Village	RL — Rural Lands
NR - Neighborhood Residential	CL – Conservation Lands
L – Lake	SO – Shoreland Overlay
RR - Rural Residential	
I – Industrial	

- **Village** is a mixed use district in a traditional downtown environment that is served by municipal water and sewer services. The area is characterized by pedestrian traffic, commercial and civic uses, and apartments. The plan supports the enlargement of the Village zone west on the south side of Railroad Street as far as Meadow Street.
- The **Neighborhood Residential** zone surrounds the Village District and is served by municipal water and/or sewer services. Its predominant use is single unit dwellings.
- The **Lake** District is a quiet residential zone that is served by onsite water and/or sewer. The primary objective of this district is to maintain water quality and scenic values.
- **Rural Residential** is a low density residential district within close proximity of public roads and electrical service, which is served by onsite water and sewer. Other typical uses in the area include farming, forestry, and municipal service facilities.
- The **Industrial** district is characterized by manufacturing, warehousing, and freight services. The industrial areas on Meadow and Railroad Streets have a mixture of low-density residential and light industrial uses that have ready access to the state highway system, and are served by town water and sewer system. The Industrial area near the airport off State Route 105 east of town is not served by town water and sewer.
- The **Rural Lands** district is characterized by forestry and agriculture, as well as camps and scattered homes, which rely on onsite water and wastewater disposal. There are limited roads and electrical infrastructure in this district, and the soils tend to have limited capacity to support onsite wastewater systems. Many areas of this district have significant scenic values that would be lost, if the land were overdeveloped. Development that is not in character with the district should be discouraged.
- The **Conservation Lands** district is intended to conserve natural resources. The district, which is to a large extent in its natural state, is comprised of sensitive water recharge areas and other public lands.
- The **Shoreland Overlay** district is designed to protect all surface water quality and applies to all natural lakes and ponds in the Town of Brighton. Currently, a 30-foot vegetative buffer, consisting of grass, shrubs and/or trees, is required to be maintained adjacent to the shoreline. Limited access to the water is provided through the buffer, but no applications of fertilizer, pesticides, or nutrients in the buffer zone should be permitted.

To better protect the Town's waterbodies, it is recommended that the Town regulations be revised to be consistent with the State Shoreland Protection Act of 2014, which sets standards for setbacks, clearing, impervious surfaces and disturbance of steep slopes within 250 feet from the mean water level of large lakes and ponds. Water bodies in Brighton that are greater than 10 acres in size and thus fall under the jurisdiction of the State Shoreland Protection Act include Back Pond, Beecher Pond, an unnamed pond referred to by the DEC as Hopkins; Island Pond, McConnell Pond, Nulhegan Pond, Spectacle Pond, and Sukes Pond. If the Town adopts a bylaw with functionally equivalent shoreland standards as the State's, it has the option to seek delegation of shoreland permitting authority from the State.

Factors Considered In Developing Land Use Objectives

Based on past experience, research, and legislation, it was realized some years ago that Brighton should adhere to state land use and development laws, such as Act 250 and 24 V.S.A. Chapter 117, the state's planning and zoning statute, and rules governing wetlands, logging, mining and agricultural activities if the health and integrity of the town

was to continue. This concern remains true today, with new rules addressing onsite septic systems and storm water runoff. These rules should be followed not only because they are the law of the land, but because they make good environmental and economic sense. The town of Brighton will not compromise on the preservation of its natural resources.

The town relies heavily on tourism, and studies have shown that scenic landscapes, unspoiled views and outdoor experiences in natural areas are a prime reason tourists visit Vermont. According to a study for the Vermont Tourism Department, “Respondents were most likely to describe Vermont as ‘scenic,’ and cited the mountains (39%) as the most attractive scenery. “(Vermont Visitor Profiling Research, Economic & Policy Resources and VDTM, Portland Research Group.)

The desired overall land use goal within Brighton therefore is to protect and retain the scenic, recreational and environmental qualities of the area while providing for planned and orderly growth that will improve the town's economic condition without sacrificing those qualities. Because of our tourist-based economy that relies heavily on the unspoiled character of the region, and to protect our quality of life, Brighton land use regulations should continue to prohibit development higher than 40 feet above the ground, including on ridgelines.

In order for a project to be considered orderly development, the project should comply with the following land use objectives:

Land Use Objectives:

1. Maintain Island Pond village as the focal point within the town and local region for the provision of services and economic development thus maintaining the town's primarily rural character.
2. Support the development of an Industrial Park or area for manufacturing in the Industrial zone, and the land acquisition and infrastructure necessary.
3. Promote and utilize existing public lands and facilities in a manner that benefits the community, and without jeopardizing the rural, unspoiled character and traditional historic viewshed.
4. Permit development that maintains Brighton's historic settlement pattern of a compact village and urban center surrounded by rural countryside.
5. Make public investments in infrastructure and services that reinforce the general character and growth patterns of the town.
6. Identify, protect and preserve important natural and historic features in Brighton's landscape including significant natural areas, fragile areas, water resources, scenic roads and views, and important historic structures or sites.
7. Promote the wise, sustainable, and efficient use of Brighton's natural resources — forest, agricultural, and earth resources.
8. Prohibit development higher than 40 feet.
9. Acquire land and/or development rights to further the above objectives.
10. Maintain and improve the ecological integrity of intact forest blocks.

SECTION III: HOUSING & DEMOGRAPHICS: Housing and Population

Table H-1 below uses estimates for the 5-year period 2012-2016 from the Census Bureau’s American Community Survey (ACS), and compares these estimates to 2010 data. The data for Brighton is inclusive of the data for the Island Pond Census Designated Place (CDP). Population and households are estimated to have decreased from 2010 to 2016 by about 20% Town-wide, while the number of housing units increased overall by about 1.4%. The number of housing units in the Island Pond CDP decreased by about 5.4% during that period. (It should be noted that the ACS population estimate for Brighton is lower than the population estimate provided by the Vermont Department of Health, which was 1,177 for 2016.) Growth in housing units was primarily single-family detached homes located outside of the Island Pond CDP.

The 2016 estimates indicate that about 42% of housing units in Island Pond were vacant, and 54% of houses town-wide were vacant. Although the 2016 estimates did not characterize the vacant units by type, the 2010 Census indicated that over 80% of vacant housing units throughout Brighton were used seasonally. County-wide, about 88% of vacant housing units were used seasonally in 2010.

Of the estimated 438 occupied housing units in Brighton in 2016, about 64% were owner-occupied and 36% were renter occupied. In Island Pond, only 47% of housing units were owner-occupied, with 53% renter-occupied.

From 2010 to 2016 the number of mobile homes in Island Pond increased from 6 to 19 while Town-wide the number of mobile homes decreased slightly.

Table H-1 Brighton Housing Data

Year	Island Pond		Brighton		Essex County	
	2016	2010	2016	2010	2016	2010
Total Population	656	821	983	1222	6173	6306
Total Households	294	377	438	554	2691	2818
Avg Household Size	N.A.	2.18	N.A.	2.21	N.A.	2.23
...owner-occupied	2.14	2.30	2.21	2.29	2.29	2.25
...renter-occupied	2.30	2.01	2.30	2.02	2.27	2.17
Total Housing Units	510	539	960	947	5064	5019
...Owner Occupied	139	223	281	384	2146	2260
...Renter Occupied	155	154	157	170	545	558
...Vacant	216	162	522	393	2373	2201
.....Season, recreation	N.A.	111	N.A.	326	N.A.	1928
.....for rent	N.A.	12	N.A.	16	N.A.	64
.....for sale only	N.A.	15	N.A.	17	N.A.	53
Housing by Units in Structure	510	541	960	873	5064	4906
...all housing units						
...in buildings w/ 1 unit	317	357	744	645	4212	4062
...in buildings w/ 2 units	54	58	54	61	145	186
...in buildings 4/ 3+ units	120	120	120	120	216	182
...mobile homes	19	6	42	47	478	466
...boats, RV's vans and other	0	0	0	0	0	10

Source: U.S. Census Bureau, Decennial Census and American Community Survey 5-year estimates, 2012-2016.

Public Housing

Brighton has a small number of private and non-profit providers of low-income housing primarily in the Village of Island Pond.

Hillside Acres contains 12 units, and “Island Pond,” which consists of four separate properties, contains 11 units. There are three developments that are restricted to the elderly and/or tenants with a disability: RM properties with six units, Sunrise Manor with 22 units, and the Village House with four units. Rural Edge manages the Island Pond properties, and the rest are managed by Gervais. There are two units in the Island Pond project that meet ADA accessibility standards, and one unit in the Village House that meets these standards.

Affordability

The definition of affordable housing as stated by the US Department of Housing and Urban Development (HUD) states: “Housing is affordable when households with incomes below an area’s median income pay no more than 30% of their income on housing. Housing costs for renters are rent and utilities. Housing costs for homeowners are principal on mortgage payments, interest, property taxes, and insurance.” Table H-2 below presents data on housing affordability for Brighton and Island Pond and offers comparisons with Essex County and Vermont.

	Island Pond	Brighton	Essex	Vermont
Median Household Income	\$28,667	\$35,217	\$39,467	\$56,104
Median Family Income	\$31,827	\$37,381	\$48,316	\$71,465
Occupied Housing Units	294	438	2,691	257,107
Owner-occupied Units	139	281	2,146	181,461
Median Value of Owner-occupied units	\$88,100	\$138,900	\$123,800	\$218,900
Median Monthly Ownership Costs	---	---	---	---
...with mortgage	\$892	\$1,063	\$1,120	\$1,533
...without mortgage	\$493	\$492	\$431	\$646
...at or above 30% of household income (with mortgage)	26.5%	20.3%	32.2%	34.6%
...at or above 30% of household income (without mortgage)	42.2%	35%	22.4%	23.2%
Renter-occupied units	155	157	545	75,646
Median Gross Rent	\$643	\$643	\$686	\$913
...at or above 30% of household income	42.6%	42.6%	41.1%	51%
Source: U.S. Census Bureau, American Community Survey 5 Year Estimates 2012-2016				

Based on the data presented in Table H-2, incomes in Brighton are lower than the average for Essex County and significantly less than the average for Vermont. Similarly, average housing values, ownership costs, and rents are lower in Brighton than averages for the county and state.

Home ownership costs and rents as a percentage of household income have risen since 1999. Based on the most recent data, 35% of homeowners without a mortgage in Brighton are cost-burdened (pay at or more than 30% of their income on housing costs), and about 43% of renters are similarly cost-burdened. About 20% of homeowners with a mortgage are cost-burdened, which is a lower percentage than in the County and State.

In a survey, a majority of respondents believe that the town needs more affordable housing and more elderly housing. The town should support the creation of more affordable and elderly housing in the community. Encouraging developers to build a certain percentage of affordable housing units is one way to do this. Allowing greater densities in some zoning districts is another opportunity, as is encouraging the creation of accessory dwelling units, as defined in subdivision 24 V.S.A. 4412(1)(E), which provide affordable housing.

Projected Housing Needs & Demographics

One way to determine Brighton’s future housing needs is to examine population trends in the town. Table H-3 below shows basic population information for Brighton, Island Pond and Essex County. Estimates from 2016 are shown below along with the State’s projections through 2030.

	Island Pond	Brighton	Essex County
Total Population, 2016 (estimated)	656	983	6,173
Median Age, 2016 (estimated)	39.8	45.4	49.2
Total Population, 2010	821	1,222	6,306
Median Age, 2010	50.6	49.3	45.8
...under 18 yrs.of age	161	252	1,197
...age 65 and over	191	275	1,220
...female	410	610	3,118
...male	411	612	3,188
Population Change, 2010 – 2016		-239	-133
% Population Change 2010 – 2016		-19.6%	-2.1%
Projected 2030 Population (Scenario A)	N.A.	932	5,489
% population change 2010-2030	N.A.	-23.7%	-13.0%
Source: U.S. Census Bureau, American Community Survey 5 Year Estimates 2012-2016; VT ACCD, August, 2013: <i>Vermont Population Projections – 2010 - 2030</i>			

Based on Table H-3, the most notable fact is that Brighton's population is estimated to have dropped by about 20% since 2010, while Essex County as a whole experienced a population decrease of 2.1%. A factor that may have contributed to the decline in year-round population is a shift in the buyers of housing units (more seasonal purchases vs. year-round residents).

Population projections prepared in 2013 by the VT Agency of Commerce and Community Development show two potential scenarios for population change through the year 2030, Scenario A and Scenario B, which are based on different migration rates. During the 1990s (Scenario A), the

national economy was generally healthier than during the 2000s (Scenario B) and Vermont saw greater rates of net in-migration. As a result, Scenario A using 1990s migration rates generally show higher populations than Scenario B, using the migration rates of the 2000s. However, in Brighton and county-wide, the two projections are virtually the same, so only Scenario A numbers are shown in the table above. It is noted that the population decrease in Brighton estimated for 2016 is almost at the number projected for 2030. Unless there is change in current trends, Brighton may see an even greater loss in population by 2030 than previously projected.

In 2010, the baby boom population was aged 50 to 65 years. The median age of Brighton in 2010, at 49.3 years, is higher than the average for Essex County perhaps because Brighton has more senior housing facilities than other towns in the county. Again, the town survey conducted for this plan indicated that a majority of respondents believe that more elderly housing is needed in Brighton. It is noted that the median age in Brighton estimated for 2016 -- 45.4 years -- is actually younger than in 2010. The estimated median age in Island Pond for 2016 is even younger, at 39.8 years.

Housing Supply

Brighton has a large percentage of older structures in its housing stock. This situation is similar to many towns in the region and Vermont. At the time of the 2010 census, 373 of 686 home (54%) were built in 1939 or earlier. Older homes tend to be less efficient from an energy usage standpoint and are more susceptible to fire. Fifty five homes (.08%) were built in Brighton during the decade 2000-2010. It is likely all of these were single family dwellings.

Housing Objectives:

1. Support state and local efforts to improve and/or provide safe and affordable housing for Brighton residents.
2. Encourage developers to provide housing in a range of options for all Brighton residents, particularly for residents of low and moderate income.
3. Provide that multi-unit and multi-family housing units are constructed in or near the existing village center where municipal services are currently available.
4. Encourage and support energy efficiency programs.

SECTION IV: SERVICES, UTILITIES & FACILITIES

Goals for the Town of Brighton include planning for, financing, and providing an efficient system of public facilities and services to meet current and future needs. The rate of growth in the town should not exceed the ability of Brighton officials and residents to provide services. Future construction or expansion of infrastructure and services will reinforce the general character and planned growth pattern of the area.

Water Supply

The Brighton Water Department was created by legislative act in 1904, and the 1987 state legislature reviewed and approved the act that set up the town's water service. Monthly public meetings are presided over by the elected Water Commissioners, who are responsible to the voters (ratepayers). Equipment available to both the Water and Sewer departments includes:

1999 12ft. Flatbed trailer, generator and culvert thawer
1999 Synergy International Generator 60JDA
1997 Ford F250 Pickup
2011 Chevrolet ¾ T Pickup
2013 GMC Sierra 1500 Pickup

As surrounding towns sometimes struggle with access to high quality water, adequate service, and affordable rates, Brighton enjoys an ample supply of fresh water at reasonable rates. For this to continue, Brighton officials should work to ensure that water supplies are protected, infrastructure is maintained and upgraded, all with an eye on maintaining affordability. Brighton's water quality sample results meet state standards. The town also receives free technical assistance from the Vermont Rural Water Association.

Brighton's municipal water system relies on two surface water supplies to meet domestic and fire protection needs. According to a 2005 water system study, there are 650 water system connections (pipes serving buildings) supplying businesses and residences. The system is operated by the Brighton Water Commission. There are two reservoirs in town located in the northern and southern ends of town. The North reservoir holds 250,000 gallons of water, whereas the South one holds 330,000 gallons. These reservoirs serve most of the village of Island Pond and the houses around the lake. Each reservoir has a state approved Wellhead Protection Plan. The cost of water service in 2017 per individual unit is \$400 per year. Residents beyond the service area of the municipal water system rely on individual on-site wells for water supplies. There is some discussion about extending the water system to the Sweet Tree operation on Spectacle Pond, and a water connection stub has been added in the area near Lakeshore Drive and 105. This was done when another project was being completed in that area in 2008, and in the event that Sweet Tree and the Town were able to reach an agreement on water service. All water systems (as of July 1, 2007) are regulated by the State of Vermont under the *Wastewater System and Potable Supply Rule*.

Notable recent and ongoing water projects include:

- Water & Sewer System Study – Forcier Aldrich & Associates, Inc. in March 2005
- One mile water line replacement for the North reservoir
- Replacement of inadequate water lines on Ripple Cove, Lakeshore Drive, Lake Street, East Brighton Road, Island View, and the Spectacle Pond area
- Water lines around the lake were looped to aid in fire protection. This included Lake and Back Streets.
- Aldrich and Elliott completed a Water Facilities study in 2017, taking advantage of a USDA SEARCH grant. The purpose of the study was to plan for future needs. A summary of the study is Appendix __, and the entire report is included by reference in this document. The study proposes a number of significant improvements in the near future. These improvements will require bond votes.
- Aldrich & Elliott worked with town staff to draft a new water ordinance to meet state standards, to review rates structures, and to create construction standards.
- A new 495' water main was installed on South Street from Mountain Street to Pepin's Garage.

Water Supply Objectives:

1. Monitor, maintain, and upgrade when necessary the town's existing community water supply system infrastructure.
2. Consider purchasing land or expanding existing sites to create additional reservoir capacity.
3. Support state and local water protection and conservation efforts to ensure clean and adequate water supplies.
4. Expansions of the municipal water system infrastructure should prioritize service to the Village, Neighborhood Residential, and Lake Districts.
5. Extend the water system to the Sweet Tree facility (the old Ethan Allen Plant) if that site is re-developed (a connection is available to do this).
6. Discourage development in areas that threaten surface water supplies, groundwater recharge areas, or other areas where water supplies are likely to be adversely impacted.
7. Install dry hydrants in remote rural areas to sufficiently meet local fire protection needs, and replace or remove inadequate hydrants.
8. Develop and adopt a capital program to address municipal water supply and system needs.
9. Continue to review the 2005 Sewer & Water System Study for future infrastructure planning (Forcier Alrich& Associates, Inc.).
10. Update Brighton's municipal water ordinance.
11. Implement the recommendations of the Water Facilities Study.

Wastewater / Sewer

The State of Vermont's Department of Environmental Conservation regulates all public sewer systems, as well as all public and private on-site septic systems. The Brighton Wastewater system is governed by a three-member board of Sewer Commissioners. Unlike Water Commissioners, who are

elected, Sewer Commissioners are by law appointed by the Selectboard. However, it has been custom to have whoever is elected to the Water Commission *ex officio* automatically be a Sewer Commissioner as well.

In Brighton, municipal wastewater is treated by an aerated lagoon system installed circa 1976. The #1 Lagoon was last pumped in 1992. There has been some discussion about installing small transfer pumps that would reduce the sludge volume in smaller amounts on a more regular basis. The municipal sewer system utilizes conventional gravity sewers, pump stations, and force mains to convey sewage to the wastewater treatment facility located on Meadow Street. The sewer system does not extend completely around Island Pond, with properties not connected utilizing septic tanks and soil disposal systems. The municipal system is currently operated through a contract with Piscataqua Environmental Services. The maximum treatment capacity of the Brighton wastewater treatment system is 150,000 gallons daily. The average annual flow is 77,500 gallons per day. The system currently operates at approximately 52% of capacity, leaving 48% capacity available for new customers. The municipal sewer system collects sewage from 415 customers in the village. The 2017 per annum cost for sewer service was \$432 per individual unit.

Future wastewater needs include a new grinder pump at the wastewater treatment plant, to make the process more efficient and less hazardous. Because of the low dwelling density around the lake, extending the municipal sewer system entirely around the lake was found to be extremely costly and not feasible. A recommendation from the 2005 Sewer & Water System Study was to develop clusters of small decentralized wastewater management systems. This is important for protecting the water quality of the lake.

All road and street improvements should be coordinated with sewer and water improvements as much as possible.

The majority of Brighton residents rely on on-site systems for the disposal of wastewater. As of July 1, 2007, all municipal and on-site systems are regulated by the State of Vermont's Wastewater System and Potable Supply Rule.

Wastewater / Sewer Objectives:

1. Monitor, maintain, and upgrade Brighton's existing municipal wastewater system to meet current and anticipated future development needs. Priority items include:
 - a. Replace the manholes for Hillside Acres, Alder St., Middle St. and South St.
 - b. Upgrade the aeration system at the wastewater treatment plant.
 - c. Implement the recommended sewer system improvements for Area #6 (Cottage Rd. & Blueberry Lane) from the 2005 Sewer Study.
2. Pursue in future years, the development of off-site community subsurface disposal systems for Areas #2 through #5 in accordance with the recommendations of the 2005 Sewer Study.
3. Consider acquiring land for on-site septic systems in the area of Spectacle Pond.
4. Extension of the municipal wastewater system should prioritize the Village, Neighborhood Residential, and Lake Districts.

5. Review local wastewater system operation procedures and contracting policies to maintain affordability for wastewater users.
6. Update the town's wastewater ordinance.
7. Develop and adopt a capital program to address wastewater system needs.
8. Monitor the state's efforts to remove phosphorus and other nutrients from wastewater, and plan for their eventual removal.
9. Improvement to the wastewater offices.
10. Upgrade the Meadow Street Pump Station Electric Panel at Clarke Street.
11. Raise Back St. wetwell

Road System and Town Garage

The Town's road equipment is housed in the town garage on Railroad Street. Major highway equipment includes:

1993 John Deere Grader
2006 International 7500 dump truck
2007 Quality Model B trailer
2008 John Deere Backhoe
2011 John Deere Bucket loader
2013 International Dump Truck
2016 International Dump Truck
2017 Finn Hydroseeder

The town garage was constructed near the state highway garage where supplies such as sand, gravel, etc., can more easily serve town and state needs. Two salt sheds hold the winter supply. The old town garage on Dale Avenue is used for storage of town property. A new storage area was constructed at the Dale Avenue site as well.

The town garage lot is also the location of the recycling center. Five times during the summer bulky days are held at the recycling center, and occasional Household Hazardous Waste Days are also held there.

Solid Waste Disposal & Recycling

Brighton is a member of the Northeast Kingdom Waste Management District (NEKWMD). The NEKWMD Solid Waste Management Plan covers Brighton and meets the state requirement for managing solid waste disposal.

Curbside trash pickup for household wastes is available to Brighton residents. This service is currently available from private haulers. Commercial rates for pickup of household trash are in flux due to issues with the new state recycling law, but Brighton should consider offering a "fast trash" service at the recycling center, which would allow residents to discard bags of trash at an affordable rate if commercial rates increase.

Solid wastes are disposed at the Coventry landfill. Brighton provides five (5) bulky waste days each summer for large disposable and selected items. The Brighton recycling facility located at the town garage is open two days per week. Flyers with details about what the local recycling facility handles are available at the town clerk's office. These activities greatly reduce dumping fees for citizens and aid in lengthening the life of the landfill. Brighton also has a certified "Brush Dump" on Head of the Pond Road for brush, leaves, grass clippings and untreated wood.

The state in 2012 passed a new law phasing in mandatory recycling and restrictions on organics going into the landfill over the coming years. As it now stands, the law will forbid organics from going to the landfill by 2020. Brighton should begin offering collection of residential organics at the recycling facility in the near future, and plan for the collection of commercial organics as well.

Re-use and recycling are important methods of waste reduction and conservation. Re-use consists of the development of second, third, or more uses of a primary (first time) product. Recycling requires the collection and reproduction of products from the initial resources. These methods save on energy consumption, and reduce the flow of solid waste. Brighton officials will continue to offer and promote recycling services within the community.

Solid Waste Goals:

1. Continue membership in the Northeast Kingdom Waste Management District.
2. Provide residents with the necessary and proper means for disposal of solid waste.
3. Consider the future of the Brush Dump as a solid waste facility.
4. Consider adopting a "fast trash" system.

Fire Department

The Brighton Volunteer Fire Department is run by a very dedicated group of volunteers numbering approximately 17. In recent years, however, the fire department has been asked to provide service to many adjoining towns (and to the Conte Refuge), and so a need for a greater number of volunteers exists, especially during daytime working hours. Because many small towns in the area are suffering from a lack of volunteers and high costs, a regional fire and rescue service could be considered in the future. Potential benefits may include cost sharing equity, and a larger pool of volunteers or an opportunity to hire fulltime emergency personnel.

In November 2008 the voters approved a 15-year bond to add a 4,000 square foot addition to the existing fire station on Railroad Street. Through its general fund, Brighton budgets money to maintain the fire station building and the department's ~~six~~ vehicles. Brighton also charges a fee to surrounding towns to help support the ability of the fire department to respond to calls. It is important to understand that the costs of having a standing, ready-to-go, fire department accrue yearly even if the fire trucks never leave the station. Also, the fire department also answers calls for brush fires, chimney fires, vehicle accidents, lost hikers, and more.

The Fire Department has the following vehicles:

1989 E-One 1210 foot ladder truck
1990 Grumman Ford Pumper
1972 Ford Pumper
1996 Freightliner 1800 tanker/pumper
1992 E-One Rescue/pumper
1985 Chevrolet 3/4T Pickup carrying a Hale Pump
Polaris All-Terrain Vehicle
Orion Rescue Sled
Kubota diesel UTV

An understanding between the Fire and Water Departments exists for the care of the 95 hydrants located within the town.

Brighton is a member of Local Emergency Planning Commission District 10 (www.lepcl0.org). Local Emergency Planning Committees (LEPC's) were established by the Federal Emergency Planning and Community Right-To-Know Act. Rapid Response Plans for each LEPC member can be found on the LEPC website. The LEPC planning efforts have been refocused in recent years to include planning for a variety of disasters that may affect the community. Floods, hazardous material spills, wildfires, natural disasters, and even terrorism all constitute real challenges facing community leaders today.

Rescue Department

Brighton contracted with Lyndon Rescue, Inc. (LRI), from Lyndonville for emergency ambulance service for most of 2018. The ambulance and crew stationed here also serves a number of surrounding towns, or a portion thereof. Dramatic price increases brought about by staffing issues caused the cancellation of the LRI contract in August of 2018. The cost in 2017 was \$68,000, but increased to as much as \$187,000 in 2018, depending on which of the surrounding towns decided buy service from the ambulance garaged in Island Pond. The Town is now contracting with Newport Ambulance, who intends to establish a substation in Morgan to serve Brighton. A five-year contract is anticipated. The service is particularly important given the population size, the medical center, and the high number of elderly residents in the area.

Fire & Rescue Objectives:

1. Continue to provide for the operation and maintenance of a fire department in the town
2. Create a municipal rescue department in Brighton.
3. Consider investigating the formation of a regional fire and/or rescue service.
4. Promote local participation in LEPC 10 initiatives.

Police Protection

Police services are provided by a hired Police Chief, who appoints deputies as needed. All police officers are part-time. A vote passed in the March 2008 election made the position of Constable an appointed one effective March 2009. Brighton also receives limited coverage from the Essex County Sheriff's Department through annual county tax payments. The Vermont State Police, dispatched from Derby, also provide limited coverage to the town.

Municipal Land & Buildings

The town of Brighton owns two municipal forests totaling approximately 200 acres. Main goals of the management plans for these lots are recreational use and sustainable production. Hiking trails and picnic areas have been considered to make these lands more usable to the townspeople and their guests. The Bluff Mountain Trail is located in the Mountain Street Town Forest and offers excellent recreational opportunities a short distance from downtown, including the Bluff Mountain Lookout which offers broad views of the surrounding mountains of the Nulhegan Basin, the pond, and the village below. There are also many publicly owned recreation facilities scattered throughout the town, including the town lakeshore park facilities such as tennis courts, beach and playground areas, volley ball court, basketball court, winter skating rink, and ball fields. A public baseball field on Derby Street has potential to be used in a variety of ways, and has seen significant improvements in recent years, including a new grandstand.

The municipal building houses the Brighton Public Library (renovated in 2004), a branch bank, Northeast Kingdom Learning Services, the offices of the Town Clerk, Town Administrator, and Listers, and numerous town departments. The municipal building has a platform lift, making it accessible for those in need. The building also has a gymnasium that is used for sports, town meetings, talent shows, and other community functions. The building has undergone a \$600,000 renovation project to restore its historic exterior appearance, and has also undergone \$50,000 worth of insulation and energy efficiency work. The Town can be proud of this building, which is a key structure and landmark in the village and area.

The Town of Brighton also owns the Historic Grand Trunk Railroad Station, another landmark downtown building that was renovated in the early 1990s. The first floor houses a local bank branch, and the offices of the Brighton Police Department. The second floor is used by the Island Pond Historic Society, a venture capital firm and an attorney. Other offices are available for rent on the second floor. The Depot is in need of a new roof, some painting, repairs to the dormers, and insulation. Those renovations are scheduled for 2018. The Town has received a \$20,000 grant from the state towards the new roof.

Lakeside Park is a five-acre public park on the lakeshore in Island Pond village. Island Pond is one of a very select group of towns in Vermont that have a commercial district on a lakeshore, and the Town has been made aware through several planning studies that the lake is a critical element of our economic well-being, and must be protected. The park contains a basketball court, tennis courts, skating rink, volleyball court, public beach area, pavilion, and playground, and a 1600' walking path. The Town contracted a park study in 2010, the aim of which was to develop ideas to better use the

park to integrate the lake with the downtown. Since then a largely volunteer effort constructed the beautiful pavilion in the Cross Street section of the park, and a 1600' lakeshore walking path has been constructed with the help of a grant from the Northern Borders Regional Commission. This is the section of the park that is most visible from the downtown and from where the lake is most visible, yet the lakeshore itself is not inviting. As part of the downtown revitalization effort, residents have suggested that a dock of considerable size would help address that issue.

Cemeteries

The town maintains four cemeteries, including the Island Pond Public Cemetery, located between Pleasant Street and the Lake. The cemetery was created in 1908, and there is a map laying out the sections, lots, roads and aisles, but the map has over the years fallen into disuse, and it is sometimes difficult to connect a name and a location. Record keeping has been spotty because commissioners have found it understandably hard to transfer a burial location on the ground to a map in the town offices.

There are three cemetery commissioners who are responsible for maintaining the cemetery and associated record keeping. The need to upgrade the cemetery record-keeping process is recognized, and there are efforts underway to modernize the system, and to ensure that the map is properly referenced in burial deeds and related records. This is a difficult and time-consuming project, but one that is needed.

Cemetery Goal: Make it possible for people to come to the town offices and find out how to locate their loved-ones or ancestors in the cemetery.

Commercial Utilities

Consolidated Communications provides landline telephone and internet services to the Brighton area, and they now are offering to provide internet service to anywhere there is a phone line. The Vermont Electric Cooperative supplies electric power and several dealers from other towns provide propane fuel. Comcast provides cable television and internet service to the townspeople, and there are also satellite television customers within Brighton. New England Wireless (formerly Great Auk Wireless) also provides internet services to residents, and is often available in the more remote areas of town.

Commercial Utility Objectives:

1. Help to keep local communications utility rates competitive by attracting multiple providers to the area whenever possible.

Telecommunication Facilities

Cellular telephone service is available most places in town, depending somewhat on what carrier is used. There is currently a privately owned telecommunications tower in Brighton, located on Paradis Mountain Rd. There are also a number of smaller antennae in the town, providing wireless internet service.

Under the Brighton Zoning Bylaw, communications facilities are permitted uses in the Industrial Districts. Communication facilities are subject to conditional use review in the Village, Neighborhood Residential, Rural Residential and Rural Lands Districts. However, this ordinance is superseded at least until 2020 by a provision of state law that gives the Public Utility Commission (former the Public Service Board) jurisdiction over telecommunications facilities.

Because of their visibility, telecommunication towers and related infrastructure require careful consideration. Telecommunication facilities of a certain size are subject to the Act 250 review process; however, it is still possible for towns to regulate the development of projects of a certain size. Brighton residents realize that the need for telecommunication facilities has increased significantly in recent years and expect this need to continue. They also realize that telecommunications technologies are continually evolving and that these facilities are important for communication, economic development, and emergency services.

Should Brighton decide to adopt or revise regulatory instruments to control the development of telecommunication facilities, factors to consider are whether or not public benefit is maximized, aesthetics are negatively impacted, and a decommissioning plan exists.

Telecommunications Objectives:

1. Adopt a local telecommunication ordinance in order to guide the development of telecommunication facilities within the town.
2. Amend zoning bylaws to better address telecommunication facilities (if an ordinance is not acceptable).
3. Ensure that affordable wireless and cellular communications are available to all residents in all areas of the town.

Medical Facilities

The Island Pond Health Center, part of the Northern Counties Health Care system, is located on Maple Street in Island Pond. The Island Pond Health Center is a family practice designed to make health care and health education more readily available to area residents. The center offers complete, coordinated, and individualized health care to people of all ages and provides a one-stop location for many family health care needs, including primary medical care, laboratory tests, and a variety of programs geared toward health maintenance.

The facility was established in 1977. Prior to that, Island Pond was the site of one of the first National Health Service Corps doctors in the country. The health center is unique in the fact that it consists of 3 different sources of healthcare under one roof - a medical office with 2 physicians and a physician assistant, a dental office with 1 dentist and 2 hygienists and a dispensary for medicines for patients.

Local efforts to attract a pharmacy to the village were successful for a period of time when the local grocery market installed a small branch in their existing store, but the pharmacy folded after a year. Having a pharmacy in town would greatly benefit the community and the future growth and development of the community.

Medical Facility Objectives:

1. Ensure that medical and dental services are available for community residents.
2. Assist efforts to attract a pharmacy to the community.

SECTION V. EDUCATIONAL FACILITIES

Brighton’s elementary and junior high school-age children (grades K-8) receive public education at the Brighton Elementary School located at the lower end of Railroad Street. Brighton Elementary is a member of the Orleans Essex North Supervisory Union. Students in grades 9-12 attend North Country Union High School in Newport. General school information for Brighton Elementary is summarized in the table below.

GENERAL	2014-15	2015-16	2016-17	2017-18
Total school enrollment	93	96	98	84
Attendance rate	93%	93%	95%	95%
Retention rate	0%	0%	0%	0%
Student/teacher ratio	13:1	12:1	14:1	11:1
Eligible Special Education	26%	21%	19%	18%
Home study (# of students)	5	10	14	11
Classroom teachers	6.6	7.5	7.5	8.0
Other teachers	6.1	6.6	6.6	6.7
Licensed administrator	1	1	1	1
Administrative support	1	1	0.8	0.8
Other staff	9.6	15.3	14.16	13.95
Average teacher salary	\$49,191	\$50,536	\$51,052	\$46,628

The school enrollment for the 2017-18 school year was 84 students in grade PreK through grade 8. The enrollment consistently increased for three years. Despite the drop in the 2017 – 2018 school year student population, the enrollment over the next five years is expected to steadily increase.

Brighton Elementary provides high quality instruction at all grade levels by highly qualified teachers. This includes physical education, music, art, and social skills. Students in grades K through 8 have access to computers at school. An after school program provides a variety of activities for all ages.

Brighton Elementary provides transportation for all students. Breakfast and lunch are provided. The fourteen acre campus includes an updated playground, and baseball field for use by students and the community. The land adjacent to the school is used for ecological studies and would provide room for future expansion.

The **Island Pond Public Library**, located in the Town Hall, partners with the Brighton Elementary School Library and provides services to the residents of and visitors to Island Pond and

the neighboring communities including the Unified Towns & Gores, Newark, Charleston, Morgan and Norton.

In 2018 library usage continued to top 12,000 visits and 5,000 computer uses. The library now has 5 computers for public use (3 desktops and 2 laptops) and continues its WiFi (wireless Internet access) service on a 24/7 basis. They subscribe to Vermont On-Line Library (including Heritage Quest), World Book On-Line encyclopedia and Universal Class. These can be accessed on our newly created Web Page, <http://islandpondpubliclibrary.wordpress.com> .

They are having successful Summer Reading Programs every year (this year a record 102 students participated) and continue to provide programming for the young and old. Special services and programs are provided to Early Headstart, Headstart, Homeschooling families, Day Care providers and the handicapped. The IPPL also has a "Birth to Five" literacy program.

The support of Brighton residents, volunteers and donators has helped make the library a successful community facility.

Library Goals:

1. Expand programs and activities to reach out to K -5th grade readers.
2. Expand technological services for older children and young adults.
3. Provide the best in popular fiction and up-to-date non-fiction for older readers.
4. Keep pace with the technological advances that are almost always one-step ahead of us.

Other Education

Northeast Kingdom Learning Services (NEKLS, www.neklsvt.org) provides comprehensive educational programs and services to community members who would like to advance their education or workplace skills. In addition, they serve children and families through an array of support programs. The NEKLS Community Education Center in Island Pond serves both adults and out-of-school youth with Adult Basic Education, GED preparation and testing, and two high school credentialing programs. Basic computer skills training is provided on an on-going basis, and CDL training is offered through periodic classes. Other job-skills training and certification are available as well.

The NEKLS office is moving from the basement of the Town Hall to the second floor, now that a platform lift has made the second floor accessible. Current hours are Monday and Tuesday from 9-5. They are exploring evening hours. They do outreach computer classes, and work with the Area Agency on Aging, Brighton elementary school, as well as running CDL classes and other tutorials.

Northeast Kingdom Community Action (NEKCA, www.nekca.org), coordinates efforts with NEKLS, and rents adjacent office space in the town hall.

Education Goals:

The goals identified for the Brighton public school system include the following:

1. To enhance parental and community support
2. To create a school climate that embraces positive communication, respect, and discipline
3. To promote a culture of school values and old-fashioned manners
4. To improve test scores while striving to have students exceed grade level expectations

Education Objectives:

1. Provide for the operation and maintenance of a local elementary school.
2. Work to retain all K-8 students at the Brighton elementary school and transport local children to schools beyond 8th grade only as necessary.
3. Consolidation, to promote efficiencies, should only be considered with schools in neighboring communities. The travel distance should not exceed a reasonable distance.
4. Continue to support NEKLS and Department of Labor services in town by providing the space for such programs.
5. Continue to support the Island Pond Public Library, its staff and facility.

SECTION VI: TRANSPORTATION

Transportation planning is a vital component for planning a community. It has a fundamental impact on land use development, provides for the movement of people and goods within the community, and provides connections between homes, businesses, community facilities, and destinations beyond the municipality. A map describing the existing and planned transportation facilities is available for review as part of this plan in the town clerk's office. As such, the regional focus on the transportation system provides the appropriate vantage point for assessing and directing planning efforts. The Northeastern Vermont Development Association (NVDA) has forwarded a general set of transportation goals and objectives for Northern Vermont municipalities. Town representatives participate in the setting of these goals through the Transportation Advisory Committee.

Roads and Sidewalks

There are fifteen miles of state highways in Brighton including route 105 (7.9 mi.) crosses the town in an east-west direction, route 114 (6.9 mi.) runs in a north-south direction, and route 111 (0.1 mi.) begins near the Brighton — Morgan town line. Town roads include two Class 1 highways totaling 1.7 miles, three Class 2 highways totaling 6.1 miles, and 19.2 miles of Class 3 highways. Brighton has many scenic areas, and areas and features of interest, and so recently opted to enroll in the Vermont Scenic Byways Program, which promotes travel along historic and cultural routes. Because much of the area is prime moose habitat, drivers should be wary as there are collisions occurring each year.

Brighton taxpayers may face significant expenses related to road rebuilding and resurfacing in the near future. The state has been falling behind on regular maintenance of its existing roads and bridges and faces regular shortfalls in infrastructure funding. This means that it will take longer for projects to receive funding while repair costs continue to rise. At this time, it has been identified that Derby Street is in need of rebuilding and Pleasant needs resurfacing. Railroad Street near the downtown area has serious drainage issues during rainstorms that affect nearby homes.

Maintaining unpaved roads takes up approximately fifty percent of road maintenance time for culvert repair, grading, etc. Acceptable minimum construction standards for dirt roads are adhered to. In the case of a proposed subdivision in which roads will be constructed, said roads must meet minimum

Class 3 road standards and acceptance to the town road system will be determined in accordance with Vermont Statute. The ability of the town to supply services to residents of improved roads should be taken into consideration when making the choice to accept a road into the town road system. This is because maintaining roads is expensive, and the taxes gained by accepting the road should cover maintenance. Consideration will only be given to the paving of gravel roads once a sufficient density of residences is reached to justify the costs.

Maintenance of highways has taken on a new importance with the state's emphasis on phosphorus removal, an effort to protect the health of the state's lakes. Although roads do not contribute as much to phosphorus loading as agriculture or wastewater treatment plants, they do play a significant role. In 2018, towns will do road work under the new Municipal Roads General Permit (MRGP). The state has mapped all town highways related to or connected directly to streams and rivers. The Town will be required to upgrade roads to prevent excessive discharge into the waters of the state from road maintenance practices.

The state has offered several grant programs focusing on drainage and phosphorus to help towns maintain their transportation infrastructure, and Brighton in the past few years has made significant upgrades to problem drainage areas, most significantly the intersection of Head of the Pond Road with Taylor Road, which washed out twice in three years at a high cost, due to undersized culverts. Towns will be required to make improvements to drainage in the coming years under the MRGP.

Under the DEC Municipal Roads General Permit (DEC MRGP), municipalities must implement a customized, multi-year municipal stormwater management plan. Strategies may include:

- ▶ inventorying roadways and identifying connections to surface waters;
- ▶ implementing solutions such as stonelined and U-shaped ditches, turnouts, check dams, road crowning, and grass-lined drainage ditches;
- ▶ upgrading drainage culverts and stabilizing culvert outlets where erosion is present.

Technical and financial assistance from VTrans and DEC VTrans, DEC scientists and regulators, and regional planning commissions will be available to help municipalities understand the requirements and implement their stormwater management plans. VTrans will continue to provide funding and technical assistance through the Municipal Mitigation Grant Program, which includes the Vermont Better Roads Program (formerly Vermont Better Back Roads), and the Transportation Alternatives Program—all growing sources of funding for developing and implementing municipal stormwater plans. Managing stormwater protects roadways from deterioration and makes our natural and built environment more resilient to future flood events, thus saving taxpayer dollars. Once the permit is in effect, municipalities will be given a 20-year implementation schedule that is prioritized based on the greatest water quality benefit and the road stormwater management plan. VTrans Regional Maintenance Districts will be available to help provide direct technical assistance to municipalities. The VT Local Roads Program will provide training and other resources starting in 2016.

There is currently an ample amount of public parking in the village area, although much of the parking in Island Pond village is on-street. There is a parking lot between Sunrise Manor and the town hall and there is a public parking lot on the other side of Sunrise Manor. A better pedestrian route between these lots and the downtown would help alleviate any parking issues.

The town is responsible for some sidewalk construction and maintenance within the village area. The town has asphalt sidewalks on Derby Street, Railroad Street and parts of Cross Street. Cement sidewalks are on Main Street, South Street, Mountain Street and parts of Cross Street. An older sidewalk on South Street west of the footbridge is currently in poor condition and generally not in use at this time, as work needs to be done to improve safety issues. The sidewalks on upper Mountain Street need extensive repair.

At a minimum, existing sidewalks in the town should be maintained and/or improved to accommodate existing pedestrian traffic. By means of a Vermont Better Connections Grant the Town is looking at a significant streetscape and underground infrastructure project to re-build Cross Street. The construction of the pedestrian bridge over the rail lines in 2004 replaced a former historic structure that linked together upper and lower areas of the village. By agreement with the state, since the footbridge itself cannot be made accessible, the town must maintain the Route 105 overpass sidewalk and the adjacent South Street sidewalk to the terminus of the pedestrian bridge over the railroad tracks. Winter maintenance of sidewalks, including the bridge ramp, is done with the town's tractor. The town does not plow private roads or sidewalks not owned by the town. In areas where sidewalks are not feasible, road shoulders should be maintained at a width that would accommodate pedestrian and bicycle traffic.

Culverts

Culverts are a critical component of the road drainage system. There are 341 culverts under town roads, in various lengths, styles, widths, and materials. The culverts are numbered and keeping track of their condition by means of a state program called VOBCIT is required by adopted Road Standards.

Stormwater

The Town recently received a large grant to replace three stormwater culverts that dumped the downtown surface water directly into Island Pond Lake, which is also the headwaters of the Clyde River. A number of new catch basins have been installed in the Mill Street and Main Street along with an extensive underground system designed to prevent phosphorus and sediment from entering the lake. It is the Town's responsibility to clean the new catchbasins yearly, by agreement with the state.

John Boylan Airport

The John H. Boylan State Airport lies just over three miles east of town and serves small commercial and private aircraft. This 188-acre site has one grass runway 2,650 feet long and 120 feet wide. Through the Agency of Transportation's Capital Facilities Plan, minor improvements were made involving obstruction removal, runway turf improvements and runway safety area improvements. The airport is listed by the state as a "Specialty" airport, providing services for smaller single engine aircraft, ultralights and gliders. The airport is good for summer and daylight use considering it is not plowed in the winter and has no lights for directing night traffic. It is possible for ski planes to land in winter. The community should investigate the possibility of making greater use of this facility. The 2011 Aviation Program-Wide Business Plan projected that the Boylan Airport would be one of four airports in the State producing a net operating profit for VTrans by 2017.

VTrans is currently in the process of updating the Vermont Airport System & Policy Plan (VASP), and the plan is expected to be complete in 2019.

Railroad

The St. Lawrence & Atlantic Railway (SLR), one of the Northeast Kingdom's busiest lines, operates in Brighton with a terminal in Island Pond Village. The rail line extends from Portland, Maine to St. Rosalie, Quebec where it connects with Canadian National Railway, and then into Montreal for access to the entire Canadian Rail network. In St. Rosalie it also connects with the Canadian American Railroad Company. Approximately two trains per day run between Island Pond and Canada and two per day between Island Pond and Maine. Lumber is the principal freight.

Public and Alternative Transportation

Rural Community Transit (RCT) is a non-profit transportation group that serves a wide range of passengers through a variety of programs, including Brighton residents. As the Medicaid/Reachup broker for Essex and other counties, RCT coordinates medical trips for Medicaid eligible persons. RCT also provides transportation services for area social service agencies. RCT is also a coordinator for the statewide Rideshare and Van Pool programs. RCT relies heavily on a volunteer driver network. A growing demand continues to increase the volunteer driver network, and allows people from outlying areas to access the more heavily populated service centers. Brighton residents support RCT through their tax dollars. RCT released its Transit Development Plan (TDP) in April 2018, which covers a ten-year time frame.

Island Pond Community Services is a non-profit organization that has teamed up with RCT to provide free transportation with its 12 passenger bus to residents of Brighton and local communities. Currently there is weekly transportation from Island Pond to Newport. The trip is open to anyone that needs a ride, the bus will pick people up along the route and bring passengers anywhere they need to go in the Derby/Newport area, picking them up and dropping them off as requested. There are also two monthly trips to Littleton that are currently being run. Passengers meet at Sunrise Manor for departure and the bus will pick passengers up along the route if needed. This transportation gives local residents without transportation or limited transportation the opportunity for them to run errands, get to doctors appointments, pick up prescriptions and any other shopping needs they may have. Provided there is an increase in demand there is possibility of providing more days of transportation.

Ancient Roads

In 2007, Brighton received a state grant to conduct research on Ancient Roads within the town. These are primarily roads that would have been laid out by town officials at some point in the past, but were never constructed or became unused over time. Much historical information about the town's development, as seen through the road system development, was obtained. More information might be obtained by more research, but there are no pressing issues directing more resources to this effort at this time.

Snowmobiles & All-Terrain Vehicles

To many, Island Pond is the snowmobiling capitol of the nation, primarily because of its extensive and well-maintained trail system. The winter economy is largely dependent on snowmobiling, even though at times there is some disruption at the gas pumps. The town allows snowmobiles to come into the village on specific routes and allows on certain roads to be open to snowmobile traveling, per state statute. The town has a Snowmobile Ordinance, as well as an All-Terrain Vehicle ordinance. At present the town restricts ATV travel to limited sections of certain town highways. There is a group of people working on attracting people to town by expanding ATV trails in Brighton.

Transportation Objectives:

1. Maintain existing town roads and bridges including the rebuilding of Cross St., Derby Street, the resurfacing of Pleasant ~~and Middle Streets~~, and the repair and paving of Lakeshore Drive, Alder Street and parts of Mill Street.
2. Establish connections to communities outside of the town via public transportation through agencies such as RCT.
3. Provide Local Roads Training for town road employees.
4. Send a Brighton representative to actively participate in the regional Transportation Advisory Committee meetings, a group which prioritizes local transportation projects for the region which are then forwarded to VTrans for state prioritization and approval.
5. Explore event opportunities for the John H. Boylan State Airport which could enhance economic opportunities in warmer months.
6. Complete the identification and research process of the Ancient Roads as time and funding allows.
7. The Town will publicize the location of parking areas in Town to encourage carpooling, and thus promote transportation energy conservation.

SECTION VII: ENERGY

This Energy Section for the town of Brighton has been developed to address the enhanced “Energy Planning Standards” established by the Vermont Department of Public Service, pursuant to Act 174. In order for the Vermont Public Utility Commission (PUC) to give the Brighton Town Plan “substantial deference,” rather than simply the “due consideration” it must currently give to Municipal Plans, the said Plan must meet these Standards.

“Substantial Deference” is defined in statute to mean, “...that a land conservation measure or specific policy shall be applied in accordance with its terms unless there is a clear and convincing demonstration that other factors affecting the general good of the State outweigh the application of the measure or policy.”

Resources, Needs, Scarcities, Costs

Brighton lies within the service territory of the Vermont Electric Cooperative (VEC) and is therefore a member of VEC. The electric utility serves over 15,000 customers in northern Vermont. VEC provides electricity to residents and businesses at market rates. As of June 2012, VEC metered electric rates for residential (R-1) service were \$8.48 cents for the first hundred KWH, and 17.118 cents for anything more. Washington Electric Cooperative, by way of comparison had rates of \$.09433 for 0-200kwh, and \$.21063 for over 200 kWh of usage.

In Brighton and the region, existing energy supplies more than meet local demand. However, high energy costs — electric service and fuel oil - create affordability issues for many in the community. This is likely to continue over the short-term and possibly worsen over the foreseeable future. The State of Vermont encourages eligible individuals to sign up for fuel assistance, and it is presumed that many people in the community currently do so.

Local Renewable Energy Sources

The Planning Commission recognizes the importance of developing locally renewable energy resources and recommends their appropriate development and use within the town. These would include the use of wood heat, solar, biomass (woodchips), small hydro, and small scale wind technologies. The efficient use and conservation of energy is also strongly encouraged.

Clean energy and energy independence are important goals, and the state of Vermont has put forth an aggressive attempt to promote and construct renewable electrical energy sources, in accordance with the state energy plan.

One of the goals of the state plan is to have a certain amount of energy produced by wind, solar, and other renewables. There are incentives provided for developing these resources. A previous version of our town plan, written in 2008, supported renewables generally, including wind, solar, etc. in Brighton. Since that time the 16 Sheffield wind turbines and the 21-turbine Kingdom Community Wind project has been completed in Lowell. A third large project in the NEK was proposed for the Seneca Mountain

range in Brighton, Ferdinand and Newark, overlooking the Nulhegan Basin. The project was ultimately abandoned due to problems connecting the power to the grid.

Problems

Although the previous Town Plan supported various renewables, including wind energy, the construction of wind facilities such as these on the ridgelines of Vermont has turned out to be increasingly controversial for a number of reasons, but mostly due to their immense size, and placement on sensitive ridgelines. At nearly 500 feet, they dwarf even the tallest trees, and dominate the ridgelines, which are for many people a defining characteristic of *Vermont*. The towers are so tall that the FAA requires them to be lit at night with blinking red lights. Much of the village, lakeshore homeowners, and properties throughout the region could have their view changed from scenic vista to 500-foot tall towers lit up at night by red blinking lights. The near-150' blades, spinning at 140 mph, kill a certain amount of birds and bats. Turbine construction involves a good deal of environmental destruction in the building of heavy duty roads up high mountains to handle the heavy equipment needed to get the components to the top, construct huge cement foundations and erect the turbines. There are claims, and denials, about health effects, impact on property values, tourism, the environment, and electric rates. After all that, they operate but one-third of the time.

Proponents of large-scale wind feel that the societal need to address the problem of climate change justifies the construction of turbines on ridgelines. Also, they provide local tax dollars, some temporary construction jobs, and some permanent jobs, and they generate clean energy.

The Planning Commission is not equipped with the resources to determine all the facts that are at dispute in the debate over large scale industrial wind development.

Members of the Planning Commission and the Selectboard have spoken with many members of the public, and the Selectboard conducted a thorough survey of voters and taxpayers. The survey showed that a majority of those voting were opposed to industrial wind turbines on the ridgelines of Brighton, by a vote of 544-320. The planning commission is in agreement with this vote.

Brighton's economy is basically a tourism-based economy that is dependent on its reputation as unspoiled mountainous and forested landscape, and we can say without ambiguity that large-scale development that is not in harmony and in character with the scenic and environmental quality of the area is a serious risk to that economy.

We therefore support the position of the Northeastern Vermont Development Association (NVDA) articulated in the Regional Plan that "no further development of industrial scale wind turbines should take place in the Northeast Kingdom."

It is the Town's position that any renewable energy development in Brighton be consistent with the land use and conservation measures in this Plan, specifically those outlined in Section II "Land Use" and Section VIII "Natural, Scenic and Historic Resources."

Regional Problems

A significant problem in the Northeast Kingdom region is the constrained electrical transmission grid. After the addition of the Kingdom Community Wind plant in the Town of Lowell, the Sheffield-Highgate Export Interface (SHEI) was created to monitor the system flows in relation to system capacity. Generation resources in this area are often required to curtail their output due to the lack of capacity to export power. The region has recently experienced a sharp increase in the number of renewable energy applications which will worsen already congested transmission, particularly in the Sheffield-Highgate Export Interface, where several existing generators are frequently curtailed by the ISO.

The permitting of grid-connected electrical generating facilities is ultimately in the hands of the Public Utilities Commission (PUC), using the criteria found in 30 VSA Section 248. The PUC takes into consideration Town Plans such as this, but makes its final decision on its interpretation of the “public good.” The Town of Brighton should always seek Intervenor status for Energy projects requiring Vermont PUC review, as these projects may be contentious in nature.

Regional and Municipal Targets for Renewable Generation

Targets have been developed by the State for each region in Vermont for the provision of renewable electrical energy generation, to work towards the State goal of meeting 90% of its energy needs through renewables by the year 2050.

Revised targets released in early 2017 provide an overall generation target of 564,962 of megawatt hours (MWh) for the Northeast Kingdom region. Since the region’s existing renewable energy generation is 546,282 MWh, 18,680 MWh of new renewable energy generation is the target for the region. This generation target may be met by a variety of technologies, including wind, solar, methane, biomass and small hydro. Using this regional generation target, NVDA allocated a portion to each municipality in the region based on its population. Based on Brighton’s estimated population of 1186, Brighton’s allocated target for *new* net generation is **346 MWh**.

The Town of Brighton chooses to rely on this net generation target, as well as the following analyses and targets for energy use across the residential, commercial and transportation sectors, developed by NVDA. This Plan demonstrates that these targets are achievable for the Town.

Residential Thermal Use

Methodology

All energy data in these estimates are expressed in British Thermal Units (BTUs) and millions of BTUs (MMBTUs) in order to allow for comparison between different energy types.

According to the Department of Public Service, residences in New England use somewhere about 45,000 to 80,000 BTUs of heat energy per square foot annually, averaging statewide at about 110

MMBTUs per residence per year for space and water heating. Space heating is by far the biggest use, and older building stock can require significantly more energy to heat.

NVDA used Census Bureau data from the American Community Survey 5-Year Estimates 2011-2015 (ACS), as well as the American Housing Survey, New England Division (AHS) to determine the total square footage of housing stock for owner-occupied and renter-occupied units. (On average, renter occupied units tend to be smaller than owner-occupied units.) Total square footage of housing stock was determined using the average number of persons per household, multiplied by the median square footage per person, multiplied by the number of households.

Utility Gas: This category includes gas piped underground from a central system to serve the neighborhood. The only utility in Vermont that delivers gas in this manner (i.e. natural gas) is Vermont Gas, and its service area is well outside of our region. A small number of ACS respondents indicated that they heated with “utility gas.” It is most likely that they confused this source with bottled, tank or LP gas. We therefore made adjustments to account for this error.

Bottled, Tank, or LP Gas: This category includes liquid propane gas stored in bottles or tanks that are refilled or exchanged when empty. This is the second largest source of heat for renter-occupied homes, and third for owner-occupied.

Electricity :This category includes electricity that is generally supplied by means of above or underground electric power lines. Census data does not distinguish between types of electric heat (e.g.resistance vs. heat pumps).

Fuel Oil, Kerosene, etc. :This category includes fuel oil, kerosene, gasoline, alcohol, and other combustible liquids. This category (oil) is the leading source of heat in the region.

Coal or coke :This category includes coal or coke that is usually distributed by truck. Some households in our region use anthracite in stove, furnaces, and boilers.

Wood :This category includes purchased wood, wood cut by household members on their property or elsewhere, driftwood, sawmill or construction scraps, or the like. Wood is the second largest source of heat in the region for owner-occupied homes.

Solar Energy: This category includes heat provided by sunlight that is collected, stored, and actively distributed to most of the rooms.

Other Fuel :This category includes all other fuels not specified elsewhere. This category very likely consists of non-fossil fuel sources, but it is difficult to make further assumptions.

NVDA applied primary heating fuels as a percentage of all housing units to determine total square footage that the fuel was being used to heat. House heating fuel is categorized on the ACS questionnaire as shown in the box above.

According to the Department of Public Service, pre-1940 housing units are likely to be “leaky” and poorly insulated with heat energy intensities closer to, if not greater than, 80,000 BTUs per square foot.

Total BTUs were converted into standard measurements of the respective fuel types using the conversion chart below and determined the total cost using the Vermont Fuel Price Report of November 2016. (Cost per “short ton” of anthracite coal came from Black Rock Coal in Montpelier.) Please note that ACS data does not account for wood pellet use, which is fairly prevalent in this region. Therefore, NVDA has provided conversion and cost information for pellet use in the table below.

Fuel	Standard Unit	BTUs	Cost per Unit
Utility Gas	Cubic foot	1,025	\$1.41
Bottled tank or LP gas (propane)	Gallon	91,333	\$2.54
Electricity	Kilowatt hour	3,412	\$0.15
Fuel oil, kerosene, etc.	Gallon (oil)	139,000	\$2.23
Coal or Coke	Short ton	19,590,000	\$370.00
Wood	Cord	20,000,000	\$227.00
Wood pellets	Ton	16,400,000	\$275.00

The Department of Public Service guidelines suggest that on average, seasonal homes account for about 5% of the thermal energy used in a year-round home. (For example, a seasonal camp may not have a central heating system, but it still may use propane to heat the water, and have a woodstove or fireplace for unseasonably cool nights.)

The percentage may be higher for communities with seasonal populations who use their properties throughout the winter. For estimation purposes, NVDA assigned 5% to seasonal units.

It is noted that the ACS data is not a hard count, but is the best available data on residential heating. It is further noted that ACS only identifies one primary source of heating. In reality many residences use two or more heating sources.

Data on Residential Thermal Use in Brighton (based on 2011-2015 ACS data)

Total Households (HHs): 408
Total owned: 272
Avg. HH Size: 2.33
Percentage built before 1940: 43.8%
Total rented: 142
Avg. HH Size: 2.39
Percentage built before 1940: 37.3%
Total use for all occupied HHs: 50,491 MMBTUs
Mean MMBTU per HH: 122

Total vacant units for recreational or seasonal use: 448
Total use for all seasonal HHs: 3,270 MMBTUs
Total cost for all occupied HHs: \$1,513,288

Fuel Type: Space Heating	Households (HHs)	Total annual avg. use		% Use: (All HHs)	% of Use: Owned	% of Use: Rented	% of Cost (All HHs)
Tank/LP/etc.Gas	42	46,403	gallons	10.1%	12.5%	5.6%	7.8%
Electricity	0	--	kWh	0.0%	0.0%	0.0%	0.0%
Fuel oil	253	163,393	gallons	61.1%	49.3%	83.8%	24.1%
Wood	109	561	cords	26.3%	34.6%	10.6%	8.4%
Coal/Coke	4	22	tons	1.0%	1.5%	0.0%	0.5%
Other	0	--	--	--	--	--	--

Commercial Thermal Energy Use

Methodology

The following table uses a worksheet created by the Department of Public Service, which uses data from the Vermont Department of Labor's Economic and Labor Market Information web site:

<http://www.vtlmi.info>.

The worksheet determines the municipality's share of the regional commercial building stock and applies assumptions from by the Energy Information Institute's Survey of Commercial Uses. The estimate does not include industrial uses, which are highly variable.

Commercial Thermal Energy Use

Estimated number of commercial buildings, per Vt. Dept. of Labor: **36**

Average annual heating load per building: **863 MMBTUs**

Estimated total heat energy consumption: **31,075 MMBTUs**

Transportation Energy Use

Methodology

This data was developed using the Department of Public Service's worksheet. The total number of vehicles comes from American Community Survey (ACS) 5-Year Estimates. Average annual Vehicle Miles Traveled (VMT) is an NVDA estimate, which accounts for longer-than-average commutes and more incidental trips in the rural region. Total VMT assumes an average fuel economy of 22 miles per gallon.

Registered electric vehicles (EVs) was determined by the Vermont Energy Investment Corporation and uses the Dept. of Public Service's average of 7,000 VMTs per EV annually.

As of January 2017 there were no EVs registered in Brighton.

Brighton Transportation Energy Use

Total vehicles: 665

Avg. annual VMTs per vehicle: 14,000

Total Annual VMTs: 9,310,000

Fossil Fuel: 385,095 gallons; 46,695MMBTUs

Ethanol:38,086 gallons; 3,226 MMBTUs

TOTAL: 49,923 MMBTUs; \$952,159

Electricity Energy Use

Efficiency Vermont has compiled data on electricity usage, as provided by utilities in the region.

Usage in 2016	kWh	MMBTUs
Commercial & Industrial	2,209,532	7,539
Residential	3,750,970	12,798
Total	5,960,502	20,337
Average Residential Usage	4,377	14.93

Targets

Thermal Efficiency Targets

Targets for thermal efficiency of residential and commercial structures were determined using the Department of Public Service worksheet. Targets are based on a methodology developed by the regional Long-range Energy Alternatives Planning (LEAP) analysis. Residential targets use the mean MMBTUs for occupied households in Town, which were calculated by NVDA. Commercial targets use the data from the Vermont Department of Labor. Data in this table represent the percentages of municipal households and commercial establishments that will need to be weatherized in the target years. The targets are cumulative.

Targets assume a 6% increase in number of housing units/commercial establishments over each period. Weatherization projects are assumed to achieve an average of 25% reduction in MMBTUs for residential units and 20% for commercial establishments, although some weatherization projects can actually achieve deeper savings.

	2025	2035	2050
Estimated number of households	432	458	486
% of households to be weatherized	20%	33%	34%
# of households to be weatherized	88	153	164
Estimated # of commercial establishments	38	40	43
% of commercial establishments to be weatherized	5%	8%	14%
# of commercial establishments to be weatherized	2	3	6

Thermal Fuel-Switching, Residential & Commercial Targets

Targets for thermal efficiency of residential and commercial structures were determined using the same Department of Public Service worksheet. Targets are based on a methodology developed by the regional Long-range Energy Alternatives Planning (LEAP) analysis and are cumulative. As with thermal efficiency targets, these targets assume a 6% increase in number of housing units/commercial establishments over each period.

	2025	2035	2050
New efficient wood heat systems in residences	226	185	134
% of households with wood heat systems	52%	40%	28%
New efficient wood heat systems in commercial establishments	6	7	10
% commercial establishments with wood heat systems	15%	18%	23%
New heat pumps in residential units	67	142	180
% of households with heat pumps	15%	31%	37%
Estimated commercial establishments with heat pumps	2	4	6
% of commercial establishments with heat pumps	6%	10%	14%

Electrical Efficiency Targets

Electricity use is expected to increase dramatically by 2050 so demand-side management and upgrades, such as hardwiring, lighting fixtures, and appliances, is also an important part of this scenario, especially since electricity is replacing other fuel-burning thermal applications. Data in this table displays a target for increased electricity efficiency and conservation during the target years. These targets were developed using the Department of Public Service worksheet, which incorporates the regional LEAP analysis. The targets are cumulative. While an individual upgrade project could result in anywhere from 50 kW to 1000 kW, we assumed an average of 400 kW. Actual utility customer counts were not available, so these targets were developed by multiplying the projected number of households by 1.5 (to account for the fact that there are generally more customers than households).

	2025	2035	2050
Estimated # of customers	649	688	729
% of customers to upgrade electrical equipment	24%	36%	50%
# of customers to upgrade electrical equipment	157	246	361

Fuel Switching, Transportation Targets

The following table displays a target for switching from fossil fuel-based vehicles to biodiesel-powered vehicles. This target is calculated using Department of Public Service worksheet which incorporates the Regional LEAP data and the American Community Survey data (estimated number of vehicles per town). Projected number of vehicles in the area is estimated to be roughly commensurate with projections of population and households. Estimates assume a gradual increase in EV fuel economy from 3 miles per kWh to 4 miles per kWh by 2050. The targets are cumulative.

	2025	2035	2050
Projected number of light-duty vehicles in the area, by year	738	830	934
Number of vehicles powered by electricity	92	292	629
% of vehicles powered by electricity	12%	35%	67%
Number of vehicles using bio-fuel blends	623	428	75
% of vehicles using bio-fuel blends	84%	52%	8%

Renewable Energy Generation Potential

The Renewable Energy Atlas, which can be accessed on the Vermont Community Energy Dashboard, shows existing generation in Brighton that is connected to the grid. As of June 2018, There were 4 solar projects in Town consisting of one ground-mounted photovoltaic (PV) system, and 3 roof-mounted PVs. The total capacity of renewable energy projects in Brighton is 22.3 kW, and the total annual generation is 23.799 MWh. It is noted that off-the-grid systems may not be reflected on the Vermont Community Energy Dashboard, so the amount of renewable energy generation in Town is potentially higher.

Based on NVDA’s method of allocating a portion of the regional target to municipalities in the region, Brighton’s allocated target is **346 MWh**, based on its population (existing generation does not count towards this target.) This target can be met through a variety of technologies.

The VT Department of Public Service provided the following table of the various capacity factors for different renewable technologies. As shown on this table, methane and biomass have the highest capacity factors of the listed technologies:

Technology Specific MWh Output Assumptions		
Technology	Capacity Factor	Annual MWh Output per MW of Installed Capacity
Solar	14%-16%	1,300
Small Wind	20% -25%	2,000
Utility Scale Wind	25%-35%	2,600
Methane	60%-90%	6,600
Biomass	60%-80%	6,100
Small Hydro	40%-60%	4,400

The Table below, also provided by the VT Department of Public Service, provides a breakdown of estimated Statewide potential for new generation capacity (in addition to currently existing capacity) of Methane Digester, Small Hydro, and Biomass technologies.

Technology	Capacity	Annual generation potential (MWh)
Farm Digesters	20 to 25 MW	125,000 to 150,000 MWh per year
Food Digesters	2 to 5 MW	5,000 to 25,000 MWh per year
Small Hydro	100 to 200 MW	400,000 to 900,000 MWh per year
Biomass	100 to 200 MW	600,000 to 125,000 MWh per year

Potential Generation:

This analysis uses maps produced by NVDA and evaluated only prime areas. The solar and wind energy potential maps included in the appendix depict both prime areas (labeled “No Constraint”) and areas with possible constraints (labeled “Possible Constraint”). Areas not depicted in one of these two categories on the maps are considered unsuitable for wind and/or solar energy generation.

Constraints

According to guidance provided by the VT Department of Public Service, “Known” constraints are areas that contain one or more of the following: vernal pools; river corridors; FEMA floodways; significant natural communities; rare, threatened and endangered species; national wilderness areas; and wetlands (Class 1 and Class 2).

Possible constraints are areas that would likely require mitigation because they contain one or more of the following: agricultural soils; special flood hazard areas (outside of the floodway); protected (conserved) lands; deer wintering areas; Act 250 mitigated agricultural soils; hydric soils, and highest priority forest blocks. It is noted that sustainable harvesting of biomass can appropriately occur within conserved lands, priority forest blocks, and at high elevations, with the guidance of a forest management plan.

NVDA’s Regional Plan recommends that lands with an elevation of 2,000 feet or more merit consideration as a special class of rural lands that should be protected from any large-scale commercial or industrial development characterized by a constructed height of 100’ or more, and an acre or more of permanent site disturbance, such as clear-cutting. The Town of Brighton concurs with this constraint.

Potential Renewable Energy Generation Assumptions

It should be noted that the biomass potential map shows the location of resources, not necessarily appropriate locations for the placement of a biomass-fueled power generation facility. One of the most efficient uses for wood fuels is through co-generation, the simultaneous production of both heat and power. Balanced heat and power loads are easier to provide for on the small scale, such as for an individual business, but larger plants are more desirable because of cost efficiencies. Large co-generation applications (10+MW) may make sense if an equally large heat user can be found, such as a manufacturer that requires tremendous heat loads.

NVDA is not planning for additional utility scale wind in the region, so wind is calculated assuming an average output of 9.5 kW (residential), based on average capacity of existing installations in the region.

As defined in the NVDA Regional Plan, wind installations with a capacity of more than 10kW but less than 100 kW would be considered “Commercial Scale.” These structures typically have a height of just over 120 feet. These structures are referred to as “business-scale” in the Vermont Renewable Energy Atlas. Utility-scale wind turbines are defined as those with a capacity of 1MW or more. These structures are referred to as “commercial scale” in the Vermont Renewable Energy Atlas.

NVDA’s generation capacity analysis shown in the table below assumes a conservative average of 9.5 kw per every 25 acres of mapped prime residential-scale wind, in order to account for contingencies such as property owners not interested in leasing their land, interconnection costs that may be too high in some areas, and unsuitability of certain sites based on site-specific evaluation.

Similarly, this estimate assumes a conservative 60 acres per 1 MW of ground-mounted solar to account for similar contingencies (the State-issued guidance for estimating ground-mounted solar potential is 8

acres per 1 MW). Rooftop solar is calculated at 10% of structures (including seasonal residences) and assumes 4kW capacity for residential, 20kW for small commercial, and 200 kW for large commercial. The table below demonstrates that Brighton has ample opportunity for meeting its target of **346 MWh** by the year 2050 through a variety of technologies, without the need to disturb areas with important resources or scenic views (e.g., residential rooftop solar alone could allow the Town to meet its renewable energy generation target.)It is further noted that as technologies evolve, shorter residential-scale Vertical Axis Wind Turbines (VAWT) may be available alternative to more visually obtrusive wind towers.

As shown on the table below, based on current technologies, ground mounted solar offer the most potential for renewable energy generation in Brighton.

Renewable Type	Capacity in MegaWatts (MW)	Generation in MegaWatt Hours (MWh)
Residential Rooftop solar	.37	454.3
Small commercial rooftop solar (<40,000 sq. ft.)	0.072	88.3
Large commercial rooftop solar (>40,000 sq.ft.)	0.2	264.9
Ground-mounted solar	7.17	8,792.1
Wind	.2	358.2
Hydro	0.0	0.0
Biomass and methane	0.0	0.0
Total Potential Generation Capacity	8.012	9,957.80

Unsuitable Areas

As previously noted, areas not shown on the energy maps with the label “No Constraint” or “Possible Constraint” would be considered unsuitable for wind or solar generation.

In addition, site-specific evaluation may determine other areas to be unsuitable due to impacts to scenic views or natural resources. Brighton’s scenic resources are central to the Town’s identity, and provide economic, recreational, and aesthetic benefits for residents and visitors alike. The preservation of these resources is essential to the Town’s tourist-based economy. Section VIII of the Plan, “Scenic and Historic Resources” identifies the places in town that have particular importance. It is noted that development should not extend higher than the treeline in these areas, and Town-wide, the local zoning bylaw sets the height limit at 40 feet. The “Land Use” section of the Plan (Section II) likewise notes the importance of preserving the “rural, unspoiled character and traditional historic viewshed” and specifies the land use objectives consistent with the orderly development of the Town.

Preferred Sites

The Town of Brighton does not have any particular parcels identified as “preferred sites” for renewable energy projects. The Town concurs with the State’s and Regional Planning Commission’s identification of “preferred sites” to include rooftops, parking lot canopies, brownfields, and gravel pits. However, the aforementioned site-specific assessment of impacts to scenic resources would still apply (e.g., a project located on a gravel pit may still have the potential to negatively impact a scenic viewshed due to height.)

Particular Standards for Wind Development Projects:

In 2017, the PUC adopted a rule that sets standards for three categories of wind facilities: small (up to 50 kW), medium (50 to 150 kW), and large (greater than 150 kW). For the small and medium categories, the PUC rule sets a 42-decibel limit 100 feet from nearby homes. For the large category, the limit is 42 decibels during the day and 39 decibels at night.

The Town may wish to establish local noise standards at least as restrictive as the above for all uses in Town, including off-the-grid renewable energy generation projects that are not subject to review by the PUC.

The PUC's rule had also proposed that **large** wind projects be set away from residences by a distance of 10 times the height of a turbine. This setback requirement was not approved by the legislature in 2017.

The Town recommends that in cases where a structure is exempt from local zoning and is higher than 40 feet (the Town's maximum under zoning), that the structure be setback from any property line or existing residence at least twice the height of the structure.

Pathways

We can all do our part to avoid wasting the energy that we strive so hard, and at such cost, to produce. This section identifies the implementation actions proposed to achieve the targets. This plan recommends that Brighton residents consider personally adopting energy saving practices. These will almost certainly become more important as energy prices rise. Weatherizing homes, purchasing more energy efficient appliances, and making conscious efforts to use less energy will all reduce household energy costs. In addition, energy efficient behaviors (shutting off lights when leaving the room, lowering thermostats at night, etc.) should be taught and used at school, home and in the workplace.

Thermal Efficiency and Thermal Fuel Switching

In 2004-5, town officials worked with Efficiency Vermont in conducting energy audits for all town buildings. More in-depth audits have since been conducted, especially in the town hall and the train depot. The recommendations from these energy audits have been largely implemented, but there remain some tasks to be completed. The measures taken include adding one foot of insulation in the town hall attic, replacing 25 windows in the third floor of the town hall, insulating around the basement foundation walls, tightening many air leaks. Foundation insulation and tightening of air leaks also done in the Railroad depot. In 2018, the Town is working on an attic insulation project in the Train depot.

In addition to the above actions regarding Town buildings, the Town will disseminate information about efficiency and fuel switching through public education events, press releases, online media (e.g., Front Porch Forum), and by making this information available in hard copy at the Town Hall:

- **Weatherization Programs:** these programs can help families reduce energy costs by improving the energy efficiency and comfort of their homes while ensuring their health and safety. For weatherization assistance from the Department for Children and Families Office of Economic Opportunity, call (802) 241-2452 or via the web at: www.dcf.state.vt.us/OEO/weather.htm .

The Northeast Employment and Training Organization, or NETO, (www.vtneto.org) also provides weatherization assistance, residential electric audits, and home energy assistance to qualified applicants. Most people heat their homes with fossil fuels, so energy audits are excellent sources of information on how better control the use of fossil fuel.

- **Site design:** site design and building construction also play a large role in increasing efficiency and reducing future energy costs. A southern orientation can provide direct solar energy contributions. Designing buildings with large insulated window areas on the southern side allows passive solar heating in the winter months. These windows will capture sunlight and in turn pay for themselves in energy savings. Similarly, constructing dwellings to allow large roof areas with southern exposure allows the homeowner to retain the opportunity of future solar development. Consideration of the natural surroundings is also important in site design. The location of trees can further reduce energy costs. Trees planted in the proper location can act as buffers to the cold winter winds and provide cooling shade in the summer.
- **Educational event (“energy fair”):** The Town will facilitate an event where residents will learn about high-efficiency and alternative fuel heating systems, including heat pumps and wood pellet heating systems.

Electrical Efficiency

- As noted above, NETO provides residential electric audits that can help residents identify electrical equipment appliances that should be upgraded.
- Efficiency Vermont (www.vtenergystarhomes.com) provides technical assistance and financial incentives to Vermont households and businesses, to help them reduce their energy costs with energy-efficient equipment and lighting and with energy-efficient approaches to construction and renovation. Efficiency Vermont is funded by an energy efficiency charge on the local electric bill.

Transportation Energy Efficiency and Fuel Switching

In an effort to both improve air quality and reduce waste of energy, the Town School has installed signage on school grounds prohibiting idling of vehicles in the student pick-up area. Other actions the Town can take to promote transportation energy efficiency and fuel switching include the following:

- **Carpooling:** The Town will publicize the location of parking areas in Town to encourage carpooling.
- **Alternative fuels and transportation:** pursue grants for both automobile and electric-assisted bicycle charging stations.
- **Patterns of Development:** Directing development through the use of land use districts and zoning regulations as described in this plan will promote the conservation of energy, by continuing the traditional pattern of concentrating development in the village core and adjacent

areas. This reduces the Vehicle Miles Traveled associated with tasks such as trips to school, stores and transportation nodes.

- **Outreach to Railroad:** urge the St. Lawrence & Atlantic R.R. to install the latest braking system technology to eliminate idling trains in Island Pond, which will address air quality issues as well as energy conservation.

Electrical Energy Generation

- Investigate the potential for developing small-scale renewable energy resources to meet municipal needs.
- Facilitate educational events for town residents regarding residential scale energy generation technologies, including ground and roof-mounted solar, for both grid-connected and off-the-grid applications.

SECTION VIII: NATURAL, SCENIC, AND HISTORIC RESOURCES

Brighton is near the geographic center of the three-county Northeast Kingdom region. Geologically, granite and glacial formations have created a stunning and rugged topography, and are also important in shaping the patterns of vegetation. Elevations in Essex County are higher than average for Vermont and the lowlands contain some of the most notable geological features, including the expansive Nulhegan Basin. The area's forests and wetlands support a diverse array of plant and animal species. Brighton and Essex County are considered part of the Great North Woods of Maine, and northern New Hampshire.

Water Resources

The protection and conservation of local water resources should be a major priority for the Town of Brighton. Protection efforts to maintain quality should include municipal surface water supplies, Island Pond Lake and other area ponds, the Clyde River, and all wellhead areas. Activities such as logging on steep slopes or near the waters' edge, building construction, road and storm water runoff, and excessive vegetation removal have the potential to negatively impact water quality. There must be a basic respect for the integrity of the surface and ground waters within the town. Conservation efforts should be focused on maintaining the long-term availability and wise use of existing water resources.

The Vermont Shoreland Protection Act of 2014 sets standards for setbacks, clearing, impervious surfaces and disturbance of steep slopes within 250 feet from the mean water level of large lakes and ponds. Water bodies in Brighton that are greater than 10 acres in size and thus fall under the jurisdiction of the State Shoreland Protection Act include Back Pond, Beecher Pond, Island Pond, McConnell Pond, Nulhegan Pond, Spectacle Pond, Sukes Pond, and an unnamed pond referred to by the Department of Environmental Conservation as Hopkins. If the Town adopts a bylaw with functionally equivalent shoreland standards as the State's, it has the option to seek delegation of shoreland permitting authority from the State.

Wetlands

Wetlands are important for many reasons. They provide habitat for fish and wildlife, storage for flood and storm waters, erosion control, and have recreational, aesthetic and economic value. There are 27 wetlands areas listed on the National Wetlands Inventory for Brighton which are very apparent on the land use map associated with this plan. Of significant interest are the wetlands along the west inlet stream of Nulhegan Pond - a diverse complex of bogs, soft wood swamps, alder swamps and beaver meadows; the Clyde River wetlands consisting of shrub, black ash and northern white cedar swamps; and the Meehan Hill Swamp and other wetlands surrounding Beecher, Spectacle, and Island Ponds. Most wetlands are on private lands, but the State of Vermont regulates the development around all wetlands.

Water Resource & Wetland Objectives:

1. Provide for the protection of well-head areas according to the zoning Bylaw.

2. Enforce the Zoning Bylaw for Brighton which designates a Shore Land Overlay District, and a vegetated buffer strip adjacent to the shoreline where no pesticides, fertilizers, or nutrients can be applied. To better protect the Town's waterbodies, it is recommended that the Town regulations be revised to be consistent with the State Shoreland Protection Act
3. Enforce the limitation of development on steep slopes within the town.

Flood Plains

The town adopted flood plain zoning in 1986. The National Flood Insurance Program makes flood insurance available to those who live in the FEMA-designated flood hazard zones only if the town adopts flood plain zoning. In most cases the enforcement has meant requiring any structure in the flood hazard area to be raised enough to avoid damage by flooding. However, enforcement is expected to get more aggressive due to increasing insurance claims. Also, assistance to towns from this program is now based on how restrictive their regulations are. This may be a good reason to consider adopting regulations that provide the town and property owners with the maximum benefits possible.

Earth Resources

The commercial extraction or removal of topsoil, sand, gravel, rock minerals or other similar earth resources should be regulated by the town zoning bylaw.

Forest Resources: Forest Blocks and Habitat Connectors

Forest lands are the most prominent and visible feature within Brighton. The forests add greatly to the area's scenic beauty and recreational and economic opportunities. Northern Vermont's forests are typically considered a "transitional" forest type, as the hardwood and conifer stands of the Northeast Kingdom lie between the mixed hardwoods of the south and the true conifer forests of the north. Brighton's forests have played a vital part in the local and regional economy, including timber production, recreation, and hunting. Because timber is a renewable resource, there will likely be growth and development within the timber industry. Therefore, Brighton supports sustainable forestry practices that will protect and sustain its quality of life. Also, the public forests owned by Brighton town should be managed according to a sustainable forestry plan. Island Pond is a gateway community to the Great Northern Forest.

Assessment

The Town of Brighton has one settled village, Island Pond, located on the shores of the 650-acre lake of the same name. Brighton is in northern Essex County, the most rural part of Vermont. The Town is mostly forested, with narrow opening to farm country to the west along Route 105 in Charleston. There are two 75-acre municipal forests, and another 1,000 acres of forest owned by the Brighton Water Department. The northern part of the town is owned largely by a lumber company and a conservation organization. There are already conservation easements on those properties. The Town promotes itself as an outdoor recreation area, and forests and wildlife are essential to that theme. A check of Biofinder shows that the town consists mainly of High Priority Interior Forest Blocks and High Priority Habitat Connectors, with some Priority Blocks as well. That is to say, there is hardly any area in Brighton that is not considered High Priority Interior Forest Block or Habitat Connector.

Goals & Policies

Brighton supports efforts to maintain the ecological integrity of intact forest blocks, especially those large enough to support the working forest. Brighton also supports efforts to maintain the ecological integrity and functionality of habitat connectors. The current Brighton Zoning Map, and specifically the Rural Lands Zone, closely corresponds to the Biofinder mapping of forest blocks and habitat connectors. Development potential in the Rural Lands Zone is limited. Minimum lot sizes are five acres. PRD's are allowed.

Much of the terrain around Island Pond is mountainous, and not suitable for development. Some of the High Priority areas nearer the village are allowing for residential development in the future. Development in these areas should be designed and sited in a manner to limit the fragmentation of large blocks of contiguous forest and habitat connectors to the greatest degree possible. Development that takes place within identified forest blocks or habitat connectors shall be located at the edge of the blocks in order to reduce fragmentation of the block by roads, clearing and development. If there is no land that is physically suitable for development at the edge of the blocks, the development must be located to minimize fragmentation of the block or the viability of the connector.

Roads longer than 1,000 feet are prohibited within the forest blocks unless a longer road reduces impacts on natural resources.

The Town will support landowner working to reduce the fragmentation of important forest blocks and habitat connectors (e.g., through enrollment in the Current Use Program, conservation efforts or other efforts a landowner may undertake).

Wildlife

Brighton's sometimes extreme climate requires plants and animals in the area to have special adaptations enabling them to survive long and cold winters. The primarily evergreen landscape provides deep shade and acidic soil for other plants and animals to call home. A relatively small human population and low intensity development have created excellent habitats for a variety of animals and plants, both large and small. As the town strives for economic prosperity and stability, care should be taken to preserve the extensive fish and wildlife resources.

Common wildlife in the area includes moose, black bear, deer, bobcat, and small game species. With state and federal wildlife refuges nearby, Brighton is becoming popular for bird watchers. Loons, spruce grouse, black-backed woodpecker, herons, and other bird species are common in the area. Many plant species (sedges, grasses, shrubs, and wildflowers) located in local swamps, bogs, marshes, ponds, lakes, rivers, streams, or mountains provide habitat for wildlife and add to natural beauty of the area.

Scenic Resources

Brighton stands apart from many other rural towns in New England because of its rugged, natural beauty. Island Pond, a small Vermont village, sits on the shore of a 600-acre lake with a 20-acre island in the center, all against a backdrop of forested mountains. Bluff Mountain, Dolloff Mountain, the Seneca Mountain range and many other beautiful sites all add to the town's character. These scenic resources provide economic, recreational, and aesthetic benefits for residents and visitors alike.

The Island Pond Plan, October 1989, G.H. Trebor, Black River Design, and GermainPage, a study prepared for the town made the following points:

“Of the 17 largest lakes in Vermont only three have the distinction of having a downtown adjacent to them. The communities are Burlington, Newport, and Island Pond. Island Pond is a member of the small group of communities in Vermont that is blessed with the opportunities and amenities that a “downtown lake” brings. As a result of this unique position in the region and the State, Island Pond is a valued resource well beyond the political boundaries of the Town of Brighton.” (p. CD 12)

Also,

“Scenic Enhancement – During the course of all planning and development activity in Island Pond, the community must be constantly mindful of the scenic quality of the Lake and the hills that surround it. Improvements in the village and development along the shoreline must not adversely impact the visual experience of Island Pond. Scenic protection should be a strong element of any local land use controls.”

The town has much invested in taking advantage of the scenic qualities of the area to enhance tourism and provide quality of life for residents. The Town has supported and encouraged the development of the Bluff Mountain Trail, in cooperation with the Northwoods Stewardship Center in neighboring Charleston. The trail has spectacular views of the village, lake, forest and distant mountain ranges. Recently a landowner whose land the trail passes through gave an easement to the town for the trail. Northwoods has a plan to extend the trail north to Middle Mountain and Gore Mountains, which would make Island Pond an important trailhead community. The town has been working with Northwoods on developing a trail up the Senecas on the town-owned 100-acre Mose Wood Lot off of Pleasant Street. Further, the town utilized a \$78,000 grant to construct a walking path along the lake, with park benches for pedestrians to sit and enjoy the view. The path was completed in 2016.

The following list identifies places that community members and guests have identified as their favorite scenic areas. Proposed developments in these areas deserve special attention in the review process. The list includes: Island Pond Lake, the 20-acre island in Island Pond Lake, Back Pond, McConnell Pond, Nulhegan Pond and Spectacle Pond. In addition, the mountains that are visible from Island Pond--Bluff Mountain, Dolloff Mountain, Haystack and Meehan Hills, Paradis Mountain, the Seneca Mountain range—all are lands that the town places special value on for scenic, wildlife and recreational importance. Any development on those mountains should not extend above the tree line.

Other attractions are the Historic Grand Trunk Railroad Station, the Bluff Mountain Trail, village churches, the Clyde River, which is part of the Northern Forest Canoe Trail system. There are also the State Beach on Island Pond, and Brighton State Park. Island Pond's Historic District encompasses a core downtown area and much of the upper village, and the town should consider taking steps to preserve the character of the area through the zoning bylaw.

Objectives For Natural & Scenic Areas:

1. Base land use decisions on preserving Brighton's forest, water, and scenic resources for future generations.
2. Decide land use decisions to potential impacts on ecologically sensitive areas which are land or water resources with unusual or significant flora, fauna, geological, or similar features, and are especially susceptible to human disturbance.
3. The planning commission should maintain a natural and scenic resource survey to identify specific areas in which development should be limited or prohibited.
4. Continue to prohibit development over 40 feet in height, particularly on ridgelines.

Island Pond Historic District

In 1979, the Island Pond Historic District was recognized by the Vermont Division for Historic Preservation. Encompassing thirty historic buildings and sites located along Depot, Main, Railroad (Pherrin), Maple, South, Walnut, Cross, Elm, Middle, North, and Mountain Streets, the district is essentially perched on the hill overlooking the village, but it also includes a number of buildings fronting on Main Street. There are other buildings located within the town that are eligible for inclusion on the register. The buildings within the historic district are currently used by a variety of entities: commercial, government, residential, and religious. A reproduced version of the state historic district map produced in 1977 is attached to this document. The official designation may offer grant assistance for renovations and historical projects and programs. It should be noted that the Island Pond Historic District has a great deal of overlap with the Designated Village Center, a designation that also provides tax credits and other benefits.

Island Pond's historic legacy needs to be carefully considered in future municipal initiatives. Planning for the protection and enjoyment of historical resources can provide the town with another feature to attract outside interest through its preservation and promotion. The town may wish to consider developing a separate historic preservation "mini-plan" or a design control district to be incorporated into the larger municipal plan. Because Brighton has an active and sizable historical society that demonstrates the strong interest in the town's history and traditions, this society is in a good position to lead efforts for future registration/recognition at the state and national level, and in the general creation of the mini-plan itself.

Historic Resource Objectives:

1. Explore the development of a historic preservation "mini-plan" to identify, protect, and better capitalize on Brighton's historic resources.
2. Enlist the Island Pond Historical Society to lead historic preservation efforts.
3. Enlist the Chamber of Commerce or the Brighton Community Forum to promote historic preservation in Island Pond.
4. Invite Vermont Historic Preservation staff to educate residents and businesses on how to capitalize on the town's official historic district designation (i.e. through tax credits or otherwise).

SECTION IX: FLOOD RESILIENCE PLAN

Since the last Brighton Town Plan was adopted, Vermont now requires all municipal plans to include a flood resilience plan that:

- (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
- (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.

The Brighton Hazard Mitigation Plan, adopted April 2017, identifies areas within the floodplain and the State-designated River Corridor, and recommends actions to mitigate risks to public safety, infrastructure and other municipal resources. The Hazard Mitigation Plan is adopted by reference into this plan.

Section VIII of this Plan identifies wetlands, rivers and forested areas, and notes the importance of wetlands for flood water storage. Section VIII also identifies the need to monitor and regulate activities such as logging on steep slopes or near the waters' edge, building construction, road and storm water runoff, and excessive vegetation removal that have the potential to negatively impact water quality and water resources. It is noted that the same actions taken to mitigate impacts to water quality are also important in mitigating flood risk.

A map of the State-designated River Corridor is included in this Plan.

SECTION X: ECONOMIC & COMMUNITY DEVELOPMENT

Tourism is Vermont's second largest industry and is certainly an essential part of the Island Pond economy today. Brighton leaders are aware that tourism is an important part of any economic development strategy. Local leaders and business owners would like to see tourism become more of a year round and sustainable industry. The community realizes that there are impacts and limitations to tourism as an economic driver (i.e. seasonality, weather dependence, typically low-wage jobs), but they also realize there are also benefits — primarily, increased dollars flowing into the community, jobs, and little demand on municipal services. According to the VT Department of Taxes, Rooms and Meals receipts in Brighton in FY2017 totaled \$1.2 million, representing an increase since FY2016 of 11.6% in meals receipts and 40.7% in rooms' receipts. Sales and Use receipts in FY2017 for Brighton

was \$8.1 million. With proper planning, Brighton leaders can make the community even more attractive and hopefully increase tourism business in the community.

From hiking, to boating, to snowmobiling, many visitors are drawn to Brighton each year for the diversity of outdoor recreation opportunities. Brighton has many areas where one can enjoy the outdoors, but the most popular area is beautiful Island Pond, the headwaters of the Clyde River. There is also Brighton State Park, the Bluff Mountain Trail, Lakeside Camping, and a portion of the former Champion Lands, now owned by Plum Creek. The Nulhegan and Clyde Rivers are part of the 740-mile Northern Forest Canoe Trail, a multi-state/nation attraction. For the last several years, the Chamber of Commerce has been putting on the very successful Friday Night Live events in the town park. Together, all of the above resources serve to attract visitors who support the commercial enterprises in Island Pond village.

An earlier survey of local restaurants, lodging establishments and retailers revealed that tourism is already a major contributing factor to the town's economy and character. While part-time employees were a substantial base, full time employment constituted the majority. Seasonal employee fluctuations were minimal. Two-thirds of those surveyed attributed more than fifty percent of their total income to tourism. Results showed that the strongest tourist populations in order are campers, snowmobilers, and hunters. Those surveyed felt that summer, winter and fall were adequately busy while mud season is traditionally slow. Town events such as the Winter Carnival, Fourth of July Parade and Fall Festival were major assets to local businesses. In addition, the high school reunion and the historical convention also contribute annually. Local businesses promote tourism through advertising. Such efforts have ranged from the local newspapers to publications reaching a broader scope such as Vermont Life magazine, VAST, Business for Trails Program, and the Boston Globe.

The area's tourism resources are bountiful. A group of graduate and undergraduate students from the University of Vermont put together an Interpretive Master Plan for Island Pond that suggested the development of "nature-based tourism" to stimulate the town's economy. The report states that "The area's beautiful and undeveloped natural resources are a large attraction to visitors of the Island Pond area." This group study strongly suggested that the Town needs a Welcome Center and laid out a plan for its operation. (The Welcome Center was built, and is now operated by a local non-profit.) Their report further points out that:

The Town is located within the southernmost reaches of the boreal forest in an area considered an extension of New Hampshire's White Mountains. This gives Island Pond a natural environment unique to the rest of Vermont."

A Johnson State College conference in 2000 on Ecotourism and Regional Sustainability, asserted that:

"The far northern forest area of Vermont is highly regarded as pristine wilderness by numerous stakeholder groups including hikers, birdwatchers and canoers, as well as snowmobilers and hunters."

Further evidence of the region's tourist potential is that the National Geographic Society selected the Northeast Kingdom as the location for a pilot geotourism program in 2009. This program was designed to "enhance the NEK as a sustainable tourism destination and act as a tool for education and community development."

Island Pond and Brighton recreational resources are a great tourist attraction, along with the lake, the state park, the island and our history. It is also the region's isolated, rugged, unspoiled and undeveloped landscape that provide the "sense of place" for Brighton, the Nulhegan Basin and the towns of the Upper Kingdom. That landscape is our "brand". The potential for developing economies based on concepts such as "eco-tourism", "geo-tourism" and "watchable wildlife" is great, but must be promoted.

It is commonly accepted wisdom that a scenic community that protects its environment will attract more visitors, thus bringing in more tourism revenue. Local community visioning sessions have noted the economic importance of recreation and tourism for Brighton. Many people choose to hunt, fish, camp, and snowmobile in Brighton because of the area's natural beauty. By protecting Island Pond's natural and scenic resources today from development out of character with those resources, the town can ensure a sustainable tourist economy in the future.

[Vermont Council on Rural Development Community Visioning](#)

The Community Visioning sessions guided by VCRD in 2016 helped the community develop a number of specific priorities on which they wanted to work. These priorities were to advance a Brighton Recreation Program, to revitalize and beautify the downtown, to make Brighton an ATV destination, and to support business growth and economic development.

Since the VCRD community visit, the town has created and funded the Recreation Department and hired a director, who is supported by a volunteer *ad hoc* committee. The ATV advocates have been working hard on developing trail accesses and the Selectboard has opened up a number of roads in and about the village area on a trial basis.

The revitalization committee and the economic development group joined forces in support of the Town's application and award of a \$70,000 Better Connections grant aimed at re-building the downtown infrastructure and re-designing the downtown streetscape. The Town has hired a consulting firm to help design a future downtown plan that will include replacing old water and stormwater pipes under the street and sidewalks, and then constructing new sidewalks. The consultant's work is not yet completed, but preliminary concepts call for narrowing Cross Street somewhat and widening the sidewalks, along with placement of some trees. The consultant will also evaluate the possibility of burying the electric lines downtown. Bringing the downtown and lake together is an aim of the consultant's work, and the concept calls for a dock of appropriately large size to be part of the downtown. The consultant will also be doing a marketing study.

There will be a great deal of further planning and design for such a project to be completed. The Town will no doubt have to bond for a certain amount of the costs. But the infrastructure piece has to be done, and it only makes sense to do all this necessary work at the same time, in the course of the same project.

Manufacturing & Industry:

Although the town's most available economic resource is tourism, it is very important to develop a diversified economy, rather than relying on one type of economic engine.

For several decades, until 2000, the manufacturing industry that provided jobs for the town and region was Ethan Allen furniture. The plant was sited in Island Pond because Ethan Allen has larger plants in Orleans and in Beecher Falls, and the wood pieces leftover from those operations were made into smaller articles of furniture such as end tables, coat rack, etc. at the Island Pond plant. The plant employed 120 people, and when it left town, the impact was very severe economically. One of the fallouts from that was that many of the volunteer ambulance squad members were also employees at the plant, and the company was generous in allowing them to leave work in case of an emergency. When the company left town, many of the squad members had to find work elsewhere, and that work took them too far away to respond.

The plant now is owned by The Maple Guild (a.k.a. Sweet Tree Maple), who now employs over 60 people year-round. The company is one of the largest maple producers in the world.

Like many towns in the NEK, Brighton is at a disadvantage for attracting industry, largely due to the distance to an interstate highway. There are many small towns looking to attract industry in Vermont, but only a few industries starting up. The reality is that a decision to locate an industry in Brighton is mostly beyond our control.

However, the town can do a lot to promote itself by making sure that all town infrastructure is in good condition and that the town is an attractive place to live and work. If the town can attract tourists due to its beauty, character and sense of place, some of those tourists might be people who are in a position to start a business.

The town could also consider an active recruitment effort to attract appropriate industry, but spending scarce funds on such a project, given the chances of success in this very competitive climate, should be carefully considered.

Recreation Resources

A major recreation resource in Brighton includes Brighton State Park, located on Spectacle Pond, which has 5 cabins, 61 tent/trailer sites, 23 lean-tos, and restroom/shower facilities. Facilities include hiking trails, a beach, a nature museum, bath house, playground and concession stand. A larger beach and bath house are located on Island Pond. The beach has a great view of Island Pond village against Dolloff and Bluff Mountains.

Lakeside Camping is a privately owned operation situated on Island Pond. The campground features majestic pines, over 1,500 feet of sandy beach, lake views, trout fishing, and nesting loons. There are 200 campsites with full hookups, playgrounds, a game room, convenience store, boat rentals and boat cruises available.

The former Champion Lands cover a vast area extending well beyond Brighton's borders. The state-owned West Mountain Wildlife Management Area, the federal Silvio O. Conte National Wildlife

Refuge – Nulhegan Basin Division, and the public access easements on Plum Creek land provide thousands of acres of protected area for recreation. These lands are prime wildlife habitat and contain some of Vermont's largest deer wintering areas and offer excellent opportunities for outdoor exploration.

The Northern Forest Canoe Trail, a relatively new multi-state water trail is a scenic recreation resource that passes through Brighton. There may be future opportunities for the community to capitalize on this resource.

Brighton, the unofficial snowmobile capital of Vermont has over one hundred miles of trails and are part of the VAST network of trails throughout Vermont. It is no surprise that snowmobiles are permitted on designated roads within the town, and it is not uncommon to see snow machines traveling into Island Pond to take advantage of the goods, services, and travel amenities provided there. To a much lesser degree, ATV travel is permitted on some Brighton roads as well. All-terrain vehicle travelers have expressed a desire for a better trail network in the town.

On any warm day beyond snow season, one will likely see bicyclists passing through Brighton. Island Pond is in fact, a hub for multiple cycling routes in the region identified on Cycling in the Kingdom, a map developed in part by NVDA, the regional planning commission. These maps can be found at www.nvda.net in the transportation section. There has also been some interest in the community to explore the development of an off road trail network similar to the Kingdom Trails network in Burke. Such a network could potentially help to increase local tourism in the warmer months.

Bicycle touring, fishing and foliage viewing are three activities that could be further promoted and developed with relative ease.

Village Center Designation

Within Brighton, the Island Pond Village Center has received an official Village Center Designation from the State of Vermont. This designation, as provided for in 24 V.S.A. Ch.76A, was created by the legislature to recognize and encourage local efforts to revitalize Vermont's traditional village centers. Revitalization is an ongoing process to improve a community's vitality and livability, but it is only one tool with a focus is on supporting commercial activity in the center of Vermont's villages. Current benefits include:

- ✓ 10% Tax Credit for the Substantial Rehabilitation of Certified Historic Buildings
- ✓ 25% Tax Credit for making Facade Improvements
- ✓ 50% Tax Credit for making Code Improvements
- ✓ Designated village centers will be given priority consideration for all grants administered through the State's Municipal Planning Grant Program and for HUD funding, including the Community Development Block Grant Program (CDBG).
- ✓ Designated village centers will be given consideration and priority by the State Building Department when leasing or constructing buildings, in consultation with the community.
- ✓ A special assessment district in a designated village may use funds for operating costs in addition to capital expenses.

In July 2016 a boundary adjustment to the Village Center was approved by the Vermont Downtown Board. An updated map is appended to this Plan.

The Village Center designation enabled the Essex House to obtain State tax credits for building renovations for this important downtown business. The designation also supported a Better Connections grant obtained by the Town for improvements in the village center.

Business Patterns

According to Essex County business data from 2017, there were 48 business establishments in Brighton, 42 of which were in private ownership and 6 which were Federal, State or Local government establishments. Of the 42 establishments in private ownership, 9 were in the Goods Producing domain and 33 were in the Service Providing domain. The majority of private businesses were small, and as a result, the data on number of employees and average wages were not released by the VT Department of Labor.

Brighton is part of the Derby Labor Market Area. There were a total of 882 business establishments in the Derby Labor Market, and 10,517 employed. 791 of the establishments were private and employed 8,500; and 91 were federal, state and local government establishments employing 2,017. The average annual wage for private and public sector jobs in Brighton in 2017 was \$30,761.

Tables E-1 and E-2 on the following pages provides basic business and economic information for Brighton.

<p>Table E-1: Brighton Covered Employment and Wages, 2017</p>
--

NAICS Industry	Establishments		Employment		Average Wage	
	2017	% chg from 2016	2017	% chg from 2016	2017	% chg from 2016
Private ownership	42	2.4	258	25.2	\$ 30,091	-5.4
Goods Producing domain	9	12.5				
Agriculture, forestry, fishing and hunting	3	0				
Mining	1	0.0				
Construction	6	50.0				
Service Providing domain	33	0.0				
Wholesale Trade	4	33.3				
Retail trade	6	-14.3	41	0.0	\$21,536	-4.4
Transportation and warehousing	3	0.0				
Information	2	0.0				
Finance and insurance	2	0.0				
Real estate and rental and leasing	1	0.0				
Professional and technical services	1	0.0				
Administrative and waste services	1	0.0				
Educational services	1	0.0				
Health care and social assistance	3	0.0				
Arts, entertainment and recreation	2	0.0				
Accommodation and food services	6	20.0				
Other Services, except public administration	2	0.0				
Government (all)	6	0.0	70	7.7	\$33,225	-2.3
Federal Government	3	0.0	7	0.0	\$58,695	0.6
State Government	1	0.0	15	50.0	\$42,549	-15.6
Local Government	2	0.0	49	0.0	\$26,876	-1.7

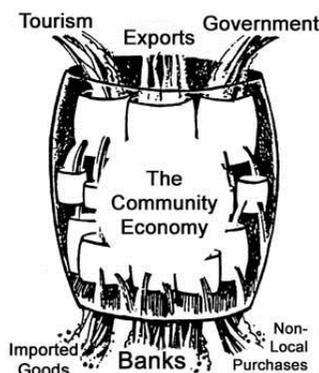
Source: Vermont Dept. of Labor, Economic and Labor Market Information

Table E-2: Selected Economic Characteristics, Brighton and Essex County			
Subject	Island Pond	Brighton	Essex County

EMPLOYMENT STATUS	Est.	%	Est.	%	Est.	%
Population 16 years and over	521	---	818	---	5,190	---
In labor force	293	56.2%	470	57.5%	2,963	57.1%
Employed	266	51.1%	437	53.4%	2,752	53%
Unemployed	27	5.2%	33	4.0%	211	4.1%
Unemployment rate	---	9.2%	---	7.0	---	7.1%
Not in labor force	228	43.8%	348	42.5%	2,227	42.9%
OCCUPATION						
Civilian employed population 16 years and over	266	---	437	---	2,752	---
Management, business, science, and arts occupations	42	15.8%	128	29.3%	776	28.2%
Service occupations	90	33.8%	98	22.4%	590	21.4%
Sales and office occupations	22	8.3%	57	13.0%	507	18.4%
Natural resources, construction, and maintenance occupations	45	16.9%	63	14.4%	365	13.3%
Production, transportation, and material moving occupations	67	25.2%	91	20.8%	514	18.7%
CLASS OF WORKER						
Private wage and salary workers	188	70.7%	323	73.9%	1957	71.1%
Government workers	55	20.7%	85	19.5%	514	18.7%
Self-employed in own not incorporated business workers	23	8.6%	29	6.6%	271	9.8%
Unpaid family workers	0	0.0%	0	0.0%	10	0.4%
INCOME AND BENEFITS (IN 2016 INFLATION-ADJUSTED DOLLARS)						
Total Households	294	---	438	---	2,691	---
Median household income (dollars)	\$28,667	---	\$35,217	---	\$39,467	---
Mean household income (dollars)	\$34,467	---	\$41,652	---	\$49,494	---
Families	184	---	282	---	1,760	---
Median Family Income	\$31,827	---	\$37,381	---	\$48,316	---
Mean Family Income	\$39,770	---	\$48,387	---	\$57,532	---
Per capita income	\$15,798	---	\$19,415	---	\$22,191	---
PERCENTAGE OF FAMILIES AND PEOPLE WHOSE INCOME IN THE PAST 12 MONTHS IS BELOW THE POVERTY LEVEL						
All people	---	27.5%	---	22.2%	---	14.8%
Under 18 years	---	35.3%	---	29.1%	---	17.7%
18 to 64 years	---	30.0%	---	24.2%	---	15.5%
65 years and over	---	10.7%	---	9.9%	---	10.7%
Source: U.S. Census Bureau, American Community Survey 5 Year Estimates, 2012-2016						

The Local Economy Simplified

When attempting to analyze Brighton's or any local economy, it is useful to imagine the community economy as a barrel with money and goods flowing in, as well as leaking out.



Local resources include: land, water, air, and minerals, labor, management, technology, and capital.

A loss of resources comes from unemployed workers and spoilage of local resources.

Non-local purchases of goods and services drain money from the economy.

Non-local sales of goods and services bring money into the economy.

The barrel analogy represents some key concepts:

- Brighton is intimately linked with the rest of the world through the inflow and outflow of income and goods.
- Brighton uses resources to produce the output it sells. Resources may be available locally or purchased elsewhere.
- The size of the barrel is determined by the inflow of outside income, the lack of the leakage of income, and the volume of resources used to produce the community's output.

A community economic analysis is an examination of the components of this barrel that is concerned with the forces of demand and supply. Some basic questions that Brighton leaders should ask when they are working to improve the local economy include:

- What are the linkages with the rest of the world?
- What are some ways to increase the potential flow of income?
- How can the community better use its existing resources and businesses to produce more output and associated jobs and income?
- How can the community reduce its loss of resources to improve its local income situation?

Economic Development Resources

There are many opportunities for technical and financial assistance in the region. Several organizations provide a variety of services to help expand businesses and employment within the Brighton. These organizations include:

- *USDA Rural Development* primarily funds local community facility and infrastructure projects. Brighton lies within part of a federally designated Rural Enterprise Area Partnership (REAP) zone. The zone status is currently expired, but efforts are underway to re-establish the designation. The REAP Initiative was established to address critical issues related to constraints in economic activity and growth, low density settlement patterns, stagnant or declining employment, and isolation that has led to disconnection from markets, suppliers, and

centers of information and finance. The Northeast Kingdom Collaborative, the body associated with the REAP, is comprised of economic development agencies, businesses, educational institutions, social service agencies, non profit organizations, health care and other organizations working to better the three county region.

- *Northern Community Investment Corporation* (NCIC) offers Small Business Administration (SBA) loans, lines of credit, direct loans up to \$100,000; loan guarantees; an equipment-leasing program; equity investments; arranges bank loans, and SBA 504 Fixed Asset Financing.
- *Northeastern Vermont Development Association* (NVDA), the regional planning and development authority, is a primary contact for Northeast Kingdom businesses. NVDA provides technical assistance for business planning, and connects businesses with the appropriate state agencies for marketing and financial assistance. NVDA assists towns with community and economic development projects to a number of funding agencies. NVDA also has a Rural Development Intermediary Re-lending Program, which provides loans ranging from \$20,000 to \$50,000.
- *Small Business Development Center* (SBDC), under the U.S. Small Business Administration, provides assistance to for-profit businesses to develop business plans for internal use or for loan proposals. The SBDC also offers management, marketing, financial, and production support to fledgling businesses.
- Northeast Kingdom Community Action (NEKCA) Micro-Business Development Program provides information on how to start a business, creating marketing and financial plans, as well as general trouble shooting for micro-businesses.
- Vermont Economic Development Authority (VEDA) serves the entire state and offers a variety of business incentive programs.
- Northeast Kingdom Learning Services offers educational programs to promote workforce training

Economic Strategies:

There are five economic strategies that Brighton officials should consider when addressing the local economy. These basic strategies are successfully used throughout the country in areas large and small, and Brighton officials have been working on some of these:

1. Attract new basic or export employers. Brighton leaders should continue revitalization efforts to make the town attractive to employers.
2. Capture existing markets. Residents and visitors should be encouraged to Buy Local.
3. Encourage the start-up of new firms. Brighton officials should update the marketing study conducted by UVM for Brighton and/or implement recommendations from that earlier study.
4. Help existing businesses to grow or become more efficient. The town can apply for technical assistance funds, workforce development funds, or conduct commercial energy audits.
5. Take advantage of aids and programs from regional, state, and federal governments such as tax-increment financing, tax credit programs, revolving loans, etc.
6. Continue upgrading municipal infrastructure and improving municipal services to make the community a more attractive place.

7. Make officials and the community aware of new economic opportunities that have the potential to aid the local economy (i.e. the National Geographic Geo-tourism Destination, of which Brighton is a part).
8. The town should promote and protect its scenic and natural resources, as these are the basis for our tourist economy.

SECTION XI: ADJACENT TOWNS & THE REGION

The Town of Brighton is bordered by eight towns. These include the towns of: Westmore, Morgan, Charleston, Newark, Warren Gore, Avery's Gore, Lewis, and Ferdinand. With the exception of Charleston, each of these towns has a town plan and local land use regulations in effect. Newark has a town plan, but no zoning regulations.

WESTMORE

The Town of Westmore adopted a plan in 2008 and zoning regulations in 2008. Westmore's last Town Plan was adopted in April 2013, and they have an update already in the adoption process. Zoning was adopted in 2008. They also have a telecommunications ordinance (2004). The development along the town boundary between Brighton and Westmore is very minimal and is not expected to change much. This is a very rural section of Westmore, with only one secondary road providing access. The Planning Commission does not anticipate any major impact as a result of development along this boundary.

MORGAN

The Town of Morgan abuts Brighton to the northwest. Morgan's last Town Plan was adopted December 2012, and the Planning Commission is working on a new plan that will seek substantial deference. Their zoning regulations were last updated in December 2012. The plan indicates that the more concentrated development should occur in the two villages of Morgan and Morgan Center. The language in their plan places emphasis on the importance of open space, and forestry and farming uses and allowing residential use to be dependent upon soil and water quality. However, the two state routes, 111 and 114, connect at the border of Morgan and Brighton. There could be some future development in this area.

CHARLESTON

Charleston borders Brighton to the west, Charleston's last Town Plan was adopted in February of 2013. They have a new plan in the works expected to be adopted this fall. They will pursue substantial deference. No zoning. A natural boundary, the Clyde River, inhibits some development but there is much land that is available for constructing homes and businesses. Much of this would be considered prime agricultural land, but the Route 105 corridor is still an area to watch for future development.

NEWARK

Newark borders Brighton to the south. Newark's last Town Plan was adopted in December 2016. Newark does not have zoning, but is presently considering the adoption of land use controls. At this time there is little residential or developed land areas on the border of Brighton. However, Route 114, Newark Pond Road and Center Pond Road hold potential for more development, which the Planning Commission will watch carefully.

UNIFIED TOWNS & GORES

The neighboring unincorporated towns of Warren Gore, Avery's Gore, Lewis and Ferdinand (also Averill and Warner's Grant) are collectively referred to the Unified Towns & Gores, or the UTG. These towns extend from Brighton's northern border easterly to its southeast border. The UTG has a town plan and updated zoning regulations. The UTG's Plan was last updated in October 2014. Zoning adopted in 2011.

REGIONAL CONTEXT

Regional impacts to development can be significant, as we discovered when a wind developer proposed to Brighton, Newark and the UTG towns the possibility of erecting as many as 35 nearly 500' tall wind turbines on mountain ridgelines in the three towns. Projects that have a regional context should be evaluated jointly by the towns involved because such projects have the ability to pit town against town, and permit effective local control only if all three towns agree to the project or all disagree. This plan recommends that the Brighton Planning Commission work with and keep in good communication with the UTG and Newark Planning Commissions.

Brighton is considered by the state to be a service center, meaning it is important to its local area for commerce, services, employment and community life. Service centers are also defined by having at least one state highway. Brighton has Vermont Routes 114, 105 and 111. Much of the village of Island Pond is served by municipal water and wastewater systems. Brighton certainly differs in size from the larger growth centers like Newport/Derby and St. Johnsbury/Lyndon, but it is a hub in its own right. Brighton's importance to the area is due to its separation by some distance from the larger regional growth centers and, therefore, has not become a satellite of either. Brighton welcomes working with all neighboring towns in all aspects of implementation of this plan.

SECTION XII: STATEMENT OF OBJECTIVES, POLICIES, & PROGRAMS FOR IMPLEMENTATION

The Brighton Planning Commission considers the following issues important to the future of the town. These projects are not prioritized here.

***Affordable housing:**

In order to meet the needs of all Brighton residents, there should be an adequate supply of quality affordable housing. There are low and moderate income individuals, who provide labor for local businesses, yet cannot afford to buy a home. There are also those who own property but face escalating property values and the resultant increase in taxes. Lastly, there are those who reside in sub-standard housing. Ideally, there should be a mix of quality single and multi-unit dwellings available to Brighton residents. Brighton officials will support efforts to address affordable housing.

***Community:**

1. The slopes around the pedestrian footbridge should be landscaped, possibly with the addition of an "Island Pond" emblem.
2. Efforts should continue to attract a pharmacy to the town.
3. The Town should consider sidewalk construction and maintenance in its yearly budget.
4. Veteran's organizations such as the VFW and American Legion have been involved in many community efforts in past years. These organizations should be enlisted for support and supported in the future.
5. Work to strengthen the local Chamber of Commerce, the Brighton Community Forum and the Island Pond Historical Society.
6. Continue efforts to improve Lakeside Park and the waterfront.
7. Support the downtown improvement and revitalization effort currently underway.

***Economic Growth:**

1. In the next five years or more the town needs to pursue more economic growth in the tourism sector and small business development which will hopefully increase employment opportunities benefiting everyone. The basic economic strategies presented in this plan should be considered.
2. The railroad station second floor should be improved to generate additional revenues.
3. Continue efforts at downtown revitalization.

***Energy:**

(See "Pathways" section of Section VII)

*** Education:**

Brighton officials shall work to meet state requirements for the provision of Life Sciences education to Brighton school students.

The town should continue to support NEKLS efforts in the town, and to make sure they have appropriate quarters in the town hall.

***Historic Preservation:**

Historic renovation work on the Town Hall “Opera Block” should continue. The third floor of the municipal building should be improved and made usable.

The town should take full advantage of the Island Pond Historic District designation and develop more information about the homes in the district.

***Infrastructure:**

It is necessary to support municipal efforts to upgrade and improve all existing infrastructure—water and wastewater systems, buildings and lands, and sidewalks and roads. This commission suggests that recommendations from existing technical studies be used as a guide when upgrades are planned.

***Land Use:**

If an opportunity arises, Brighton should consider purchasing or acquiring the development rights to the island in the lake, and the Goulet compound off of Mill St.

***Parks planning:**

The town park on Island Pond, the town ball field, and the town forests are underutilized community assets. A Parks visioning committee should be formed to develop a parks master plan that would yield specific strategies on how to improve each park and the town forest for Brighton residents.

***Recreation:**

The town's tennis court fence should be repaired.

The public baseball field on Derby Street should be maintained for public recreation.

Local bicycle and pedestrian trails should be improved or developed.

The Town should take advantage of the many outdoor recreational opportunities available in the area.

***Tourism:**

The Island Pond Welcome Center was completed in 2007. The facility is an excellent place for the Brighton Community Forum or the Chamber of Commerce to promote events, local attractions, and businesses. If the opportunity to purchase an adjacent property in the future comes about, this commission should work toward that end allowing the Welcome Center to be further developed to improve the local economy.

REFERENCES

Island Pond Plan, G.H. Trebor, Black River Design, Germain Page, October 1989

UVM Environmental Program Interpretive Master Plan for Island Pond, Vermont. Tom Hudspeth and students, 2000.

Exceptional Natural Habitats and Rare Plant and Animal Species of Essex County, VT, Non-Game and Natural Heritage Program, Vermont Fish & Wildlife Department March 1990

Island Pond Lakeside Park Improvement Study, Stantec Planning & Landscape Architecture, P.C., 2011

Brighton Town Plans, 2008, 2013

Attachment 2: Minimum Town Road and Bridge Standards that include Water Quality Best Management Practices

January 4, 2011

**TOWN ROAD AND BRIDGE STANDARDS
TOWN OF BRIGHTON, VERMONT**

The Town of BRIGHTON hereby adopts the following Town Road and Bridge Standards which shall apply to the construction, maintenance and repair of all town roads and bridges.

The standards listed here are considered minimum and are presented for purposes of guiding construction and maintenance personnel. The standards listed here include three types of management practices and are designed to: ensure the safety of the traveling public, minimize damage to road infrastructure during flood events, and enhance water quality protections by minimizing sediment delivery to surface waters and/or wetlands. The select board reserves the right to modify the standards for a particular project, where, because of unique physical circumstances or conditions, there is no possibility that the project can be completed in strict conformance with these provisions. Any modifications to the standards must be done in a manner that protects the underlying intent of the management practice, be it public safety, flood hazard avoidance, or water quality protection. Fiscal reasons are not a basis for modification of the standards. Questions about modifications to the standards should be directed to the VTrans District Office.

Any new road, whether or not that road is proposed to be conveyed to the town, shall be constructed according to the minimums of these standards. If any federal and/or state funding is involved in a project, the VTrans district office will be notified prior to any field changes taking place that would alter the original scope of work.

Roadways

- All new or substantially reconstructed roads will have at least a 15-inch thick processed gravel subbase, with gravel roads having the top 3 inches (minimum) as crushed gravel.
- All roadways will be graded so water does not remain on the road surface. For roadways that are not superelevated, this generally means a 2-4% ($\frac{1}{4}'' - \frac{1}{2}''$ per ft) crown for gravel roads and a 1-2% ($\frac{1}{8}'' - \frac{1}{4}''$ per ft) crown for paved roads to promote sheeting of water.
- Proper grading techniques for gravel roadways will be used to avoid creating a ridge or berm between the crown and the ditch.
- Any berm along the roadway shoulder that prevents the proper sheeting of water will be removed.

Ditches and Slopes

Soil exposed during ditch and slope construction or maintenance will be treated immediately following the operation. Priority should be given to areas vulnerable to erosion immediately adjacent to or discharging to surface waters and/or roadway drainage facilities. The following are minimum erosion control measures:

- Seed and mulch ditches with grades less than 2%. Use biodegradable, non-welded matting and seed on ditches with grades between 2% and 5%. Stone line all ditches with grades greater than 5%; alternatively, install stone check dams. Dams should be comprised of a well graded stone matrix 2 to 9 inches in size. Dams should not exceed 2 feet in height and check dam crest should be at least 6" below the top of the ditch.

- Create parabolic (wide "U" shaped) ditches when constructing new or substantially reconstructing ditches, rather than narrow "V" shaped ditches. Ditches with gradual side slopes (maximum 2H: 1V ratio) and a wide bottom (at least 2 feet) are preferred.
- Use biodegradable, non-welded matting to stabilize side-slopes where slopes are greater than 1:1; apply seed and mulch to any raw or exposed side-slope if slopes are less than or equal to 1:1.
- Ditches should be turned out to avoid direct outlet into surface waters. There must be adequate outlet protection at the end of the turnout, either a structural (rock) or vegetative filtering area.

Culverts and Bridges

- All new driveway culverts will have a minimum diameter of 15 inches.
- All new roadway culverts will have a minimum diameter of 18 inches.
- Any culvert with a drainage area greater than 0.25 sq mi will require a hydraulic engineering study. Culverts will be designed to convey the Q25 design storm with minimal surcharge.
- All bridges (structures with spans greater than 6 feet) and open bottom structures will require a hydraulic engineering study. Structures will be designed to convey the Q25 design storm and allow for passage of ice and debris.
- When installing or replacing culverts, use appropriate techniques such as headwalls and wingwalls, where there is erosion or undermining or where it may occur.
- Install a splash pad or plunge pool at the outlet of drainage culverts where there is erosion or where erosion may occur. Splash pads and plunge pools are not appropriate for use in streams supporting aquatic life.

Guardrail

When roadway, culvert, bridge, or retaining wall construction or reconstruction projects result in hazards such as foreslopes, drop offs, or fixed obstacles within the designated clear-zone, a roadside barrier such as guardrail shall be installed. The most current version of the AASHTO Roadside Design Guide will govern the analysis of the hazard and the subsequent treatment of that hazard.

Access Management

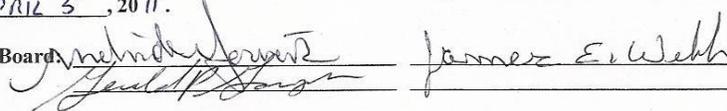
The town will have a process in place, formal or informal, to review all new drive accesses and development roads where they intersect Town roads, as authorized under 19 V.S.A. Section 1111. Towns may reference VTrans A-76 Standards for Town & Development Roads and B-71 Standards for Residential and Commercial Drives.

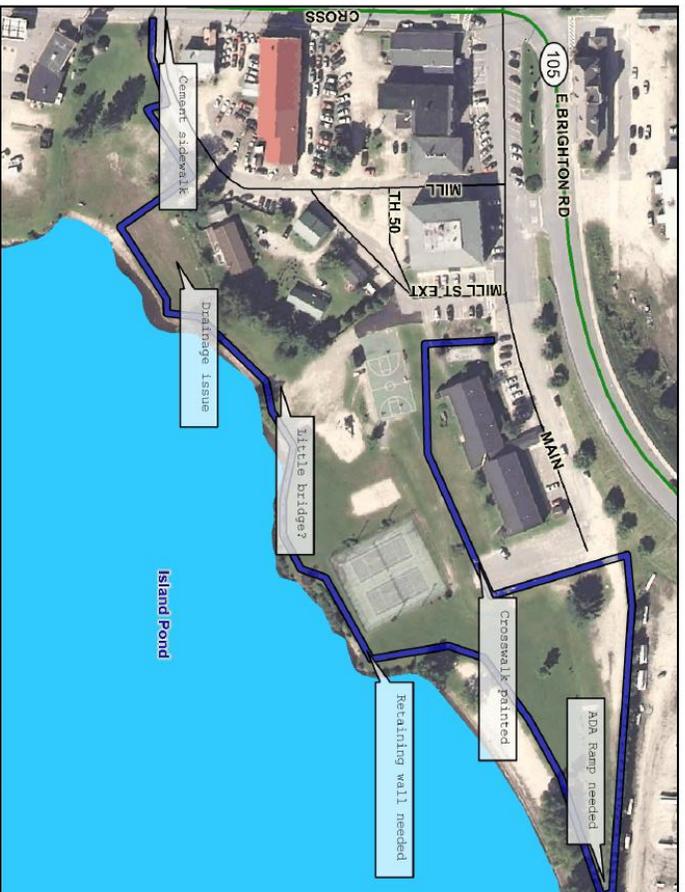
Training

Town highway maintenance crews will collectively attend a minimum total of 6 hours of training per year on best road management practices. The town will keep documentation of their attendance.

Passed and adopted by the Selectboard of the Town of BRIGHTON, State of Vermont
on APRIL 5, 2011.

Select Board

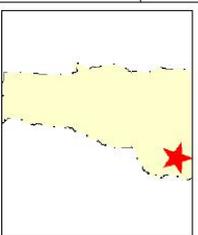




Map center: 549130, 257338

DISCLAIMER: This map is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. VCGI and the State of Vermont make no representations of any kind, including but not limited to the warranties of accuracy, completeness, and/or fitness for a particular purpose, in connection with the data on this map.

Notes: Layer: 2,500 feet
Width: 8 feet
URL: http://maps.vermont.gov/maps/vcgil_basemap/launch.jsp



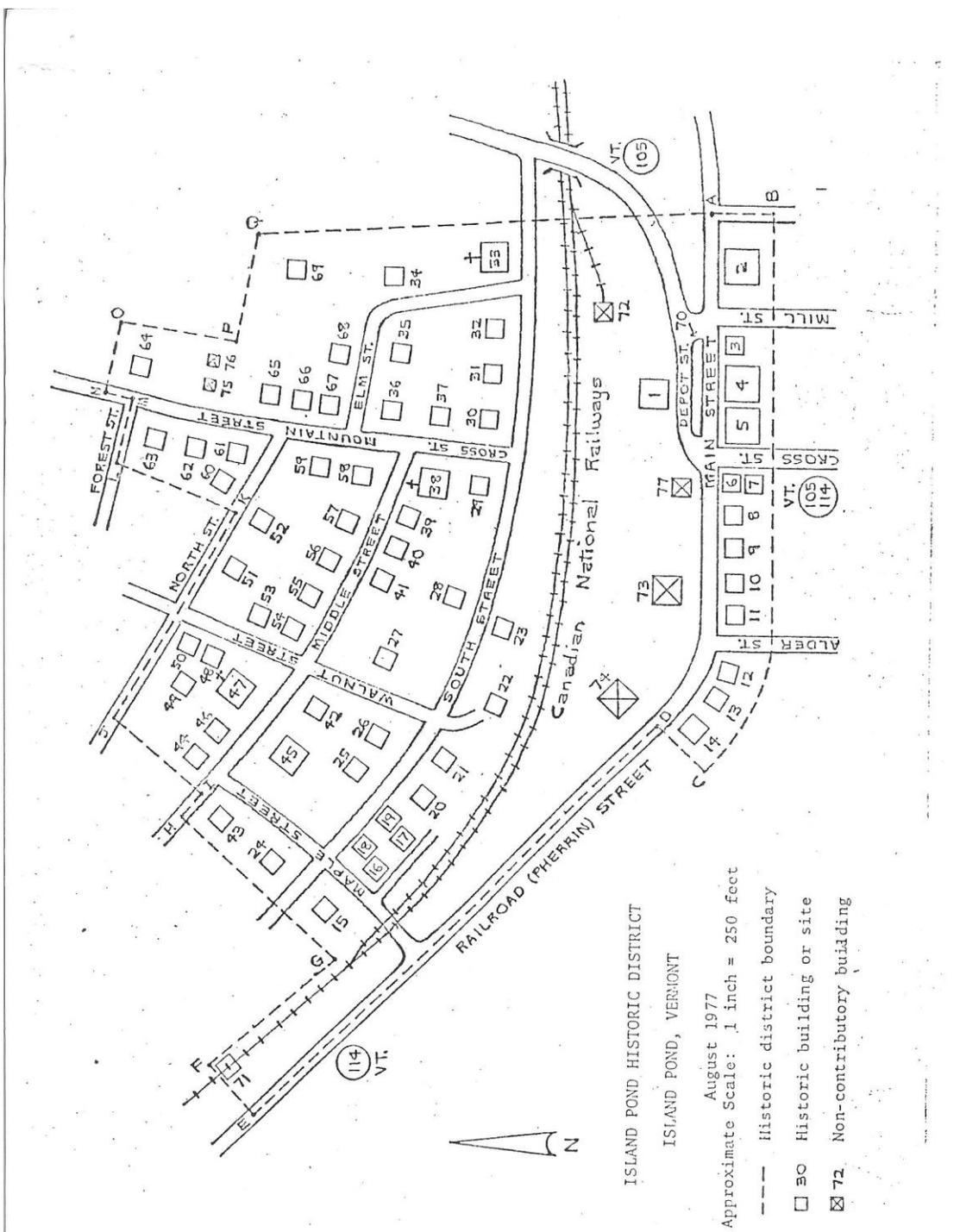
Legend

- Airports
- Mountains and Hills
- Interstates
- US Highways
- VT State Highways
- Rail Lines
- Town Boundaries
- Roads
 - Class 1-3
 - Class 4
 - Driveways
- Rivers and Lakes
- Streams
- Perennial
- Intermittent
- Unassigned
- Cities
- VT State Boundary

VT State Plane Meters (NAD83)
Scale: 1:1,900



8/6/12



ISLAND POND HISTORIC DISTRICT
ISLAND POND, VERMONT

August 1977
Approximate Scale: 1 inch = 250 feet

- Historic district boundary
- 30 Historic building or site
- ⊗ 72 Non-contributory building

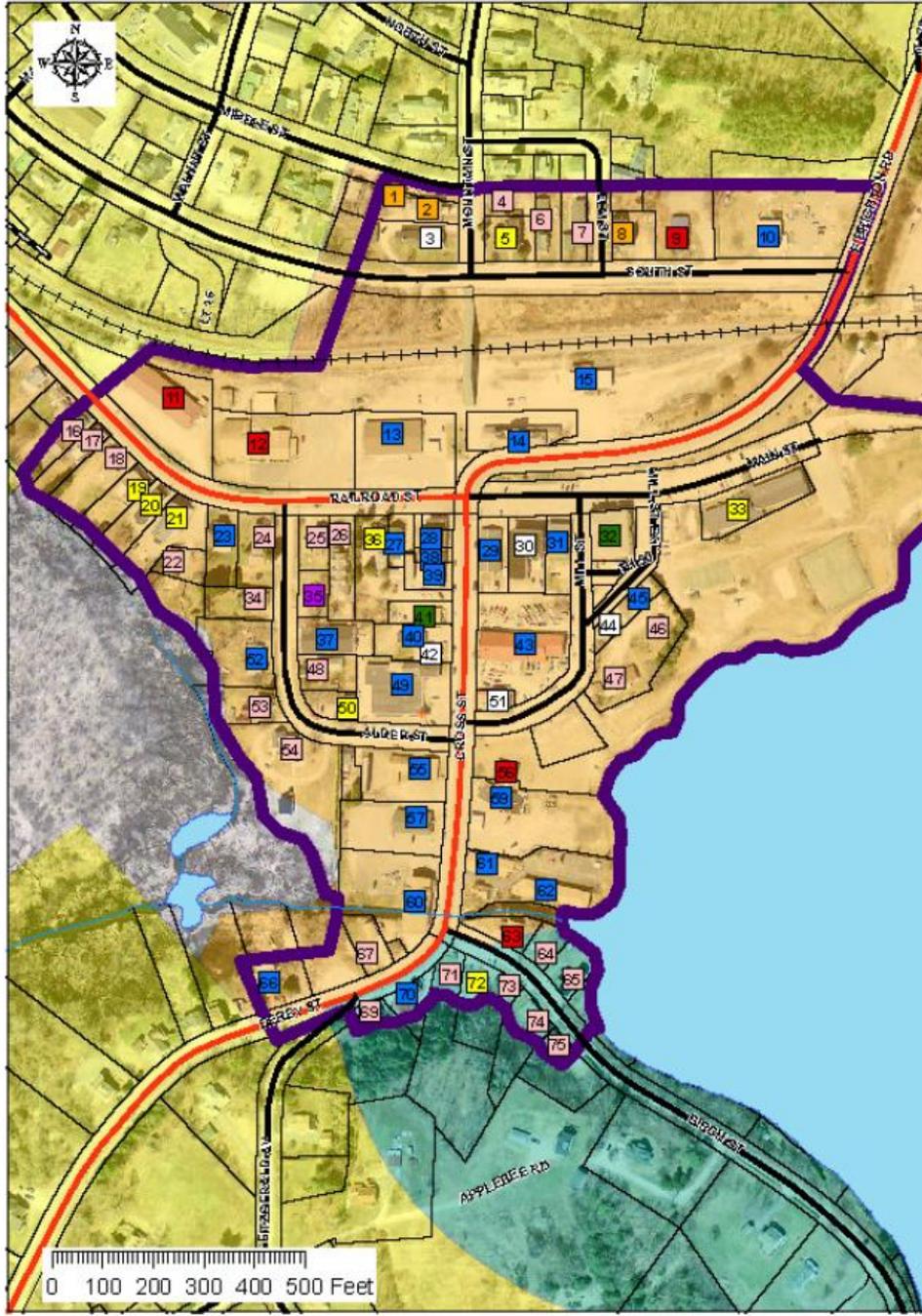
Town of Brighton, VT Village Center Designation Map

07/28/2016

**Board Approved
07-25-2016**

- Key Commercial/Civic Establishments:
1. Congregational Church Parsonage
 2. Congregational Church
 3. Hearth & Home Gifts
 8. Episcopal Church
 9. Masonic Hall
 10. Pepin's Garage
 11. Brighton Volunteer Fire Department
 12. American Legion Post #80
 13. Kingdom Market
 14. Grand Trunk Depot (Community National Bank)
 15. Maintenance Shed St. Lawrence & Atlantic RR
 23. Vacation Rental
 32. Brighton Town Hall
 33. Sunrise Manor
 35. Fairpoint
 41. Headstart
 42. NEK Physical Therapy
 43. Brighton Garage
 45. Private Storage garages
 51. Restaurant/Pub (apartment on 2nd floor)
 52. Law Office
 55. Dollar General
 56. Lakeside Park Pavilion
 57. Former Ted's Market
 59. Irving Gas Station & Minimart
 60. Clyde River Hotel
 61. Lakefront Motel Office
 62. Lakefront Motel Rooms
 63. Island Pond Welcome Center
 66. Former gas station
 70. Friendly's Pizza

- Building Use Type**
- Commercial
 - Church
 - Community/Recreational
 - Government
 - Multi-Family Dwelling
 - Mixed Use
 - Residence
 - Industrial
- Zoning Districts**
- Village
 - Lake
 - Neighborhood Residential
 - Rural Lands
 - Rural Residential
 - Industrial
 - Conservation



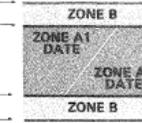
0 100 200 300 400 500 Feet

Town of Brighton Flood Map



KEY TO MAP

- 500-Year Flood Boundary
- 100-Year Flood Boundary
- Zone Designations* With Date of Identification e.g., 12/2/74
- 100-Year Flood Boundary
- 500-Year Flood Boundary



Base Flood Elevation Line With Elevation In Feet**

— 573 —

Base Flood Elevation in Feet Where Uniform Within Zone**

(EL 987)

Elevation Reference Mark

RM7 x

River Mile

M1.5

**Referenced to the National Geodetic Vertical Datum of 1929

*EXPLANATION OF ZONE DESIGNATIONS

ZONE	EXPLANATION
A	Areas of 100-year flood; base flood elevations and flood hazard factors not determined.
A0	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; average depths of inundation are shown, but no flood hazard factors are determined.
AH	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; base flood elevations are shown, but no flood hazard factors are determined.
A1-A30	Areas of 100-year flood; base flood elevations and flood hazard factors determined.
A99	Areas of 100-year flood to be protected by flood protection system under construction; base flood elevations and flood hazard factors not determined.
B	Areas between limits of the 100-year flood and 500-year flood; or certain areas subject to 100-year flooding with average depths less than one (1) foot or where the contributing drainage area is less than one square mile; or areas protected by levees from the base flood. (Medium shading)
C	Areas of minimal flooding. (No shading)
D	Areas of undetermined, but possible, flood hazards.
V	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors not determined.
V1-V30	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors determined.

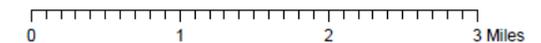
NOTES TO USER

Certain areas not in the special flood hazard areas (zones A and V) may be protected by flood control structures.

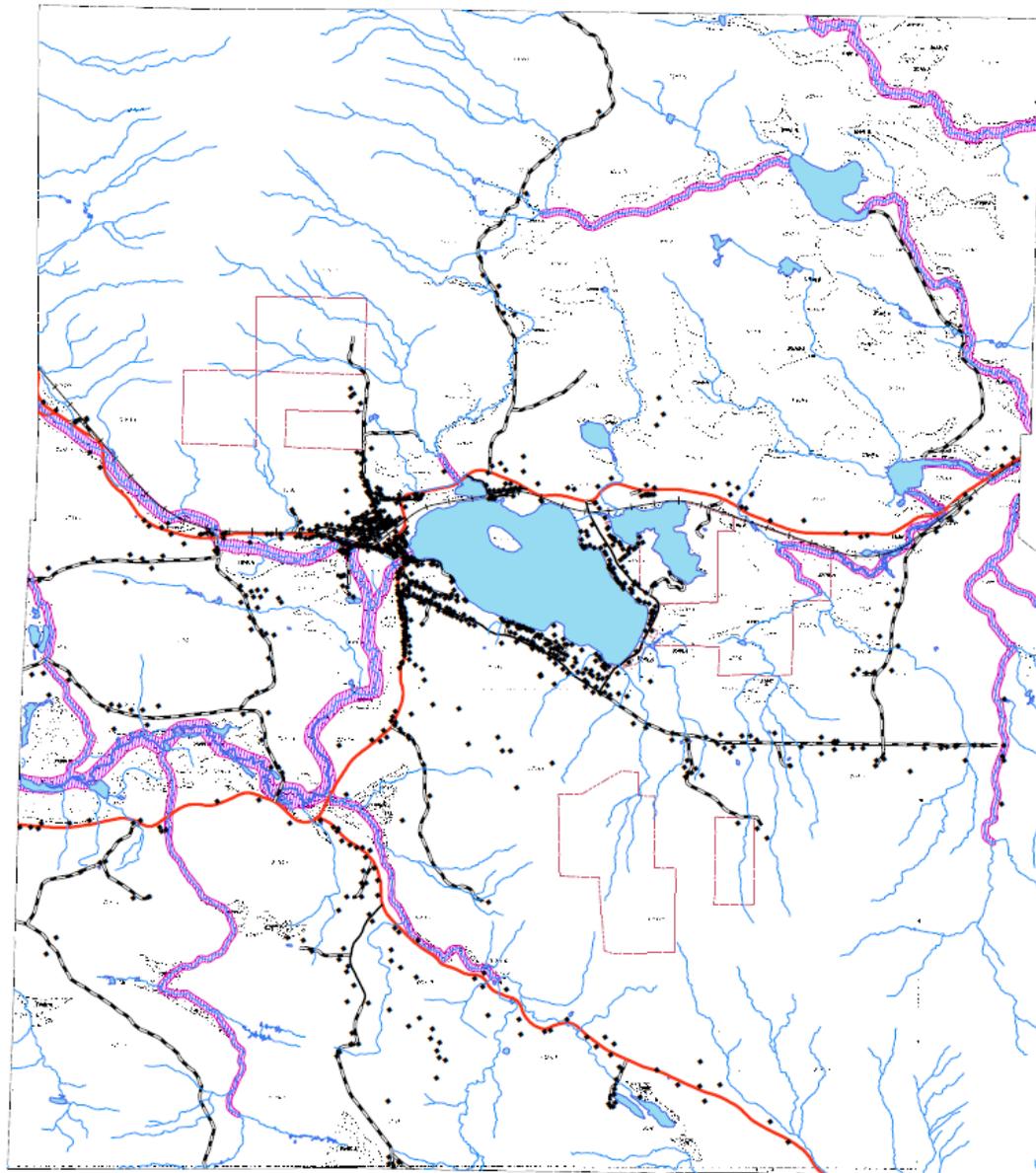
This map is for flood insurance purposes only; it does not necessarily show all areas subject to flooding in the community or all planimetric features outside special flood hazard areas.

For adjoining map panels, see separately printed Index To Map Panels.

- Building Location
- +— Rail Line
- US & State Highways
- Paved Town Road
- Upaved Public Road
- Lakes, Ponds & Rivers
- Public Lands
- Town Boundary
- ANR River Corridors

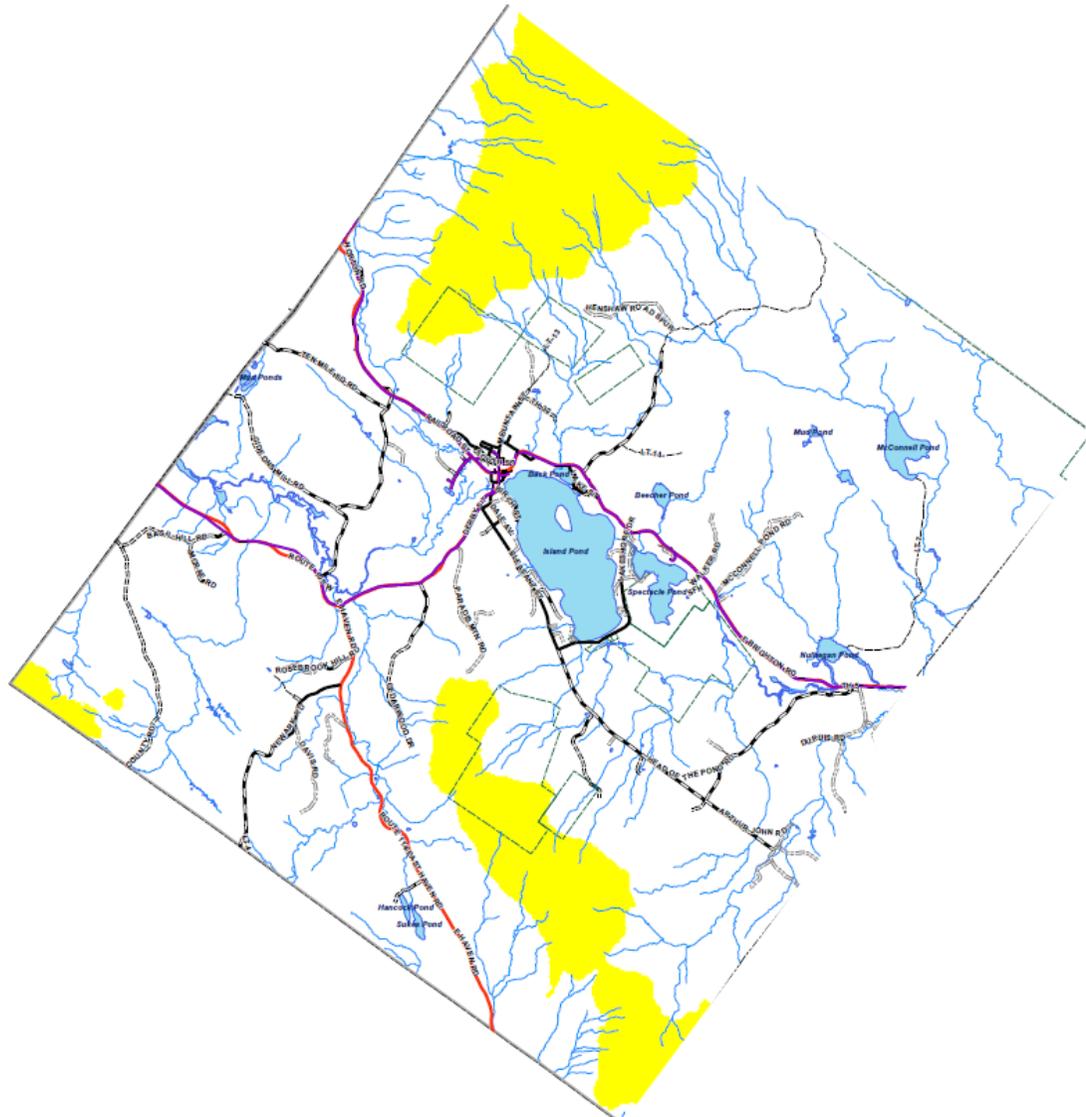


06/27/2018



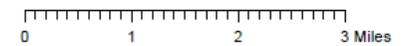
Brighton, VT Hydroelectric Energy Potential Map

05/01/2017



Legend

- Substation
- ◆ Existing Hydroelectric Facilities
- Potential Hydroelectric Facilities
- Major electric transmission line
- 3 Phase Power Lines (Data is not available for all areas)
- US & State Highways
- Paved Town Highway
- Unpaved Town Highway
- Class 4 Town Highway
- Town Legal Trail
- Private Road
- County Boundary
- Town Boundary
- Streams
- Lakes, Ponds & Rivers
- Public Lands Boundary
- Areas Over 2000' Elevation (Proposed Regional Constraint)



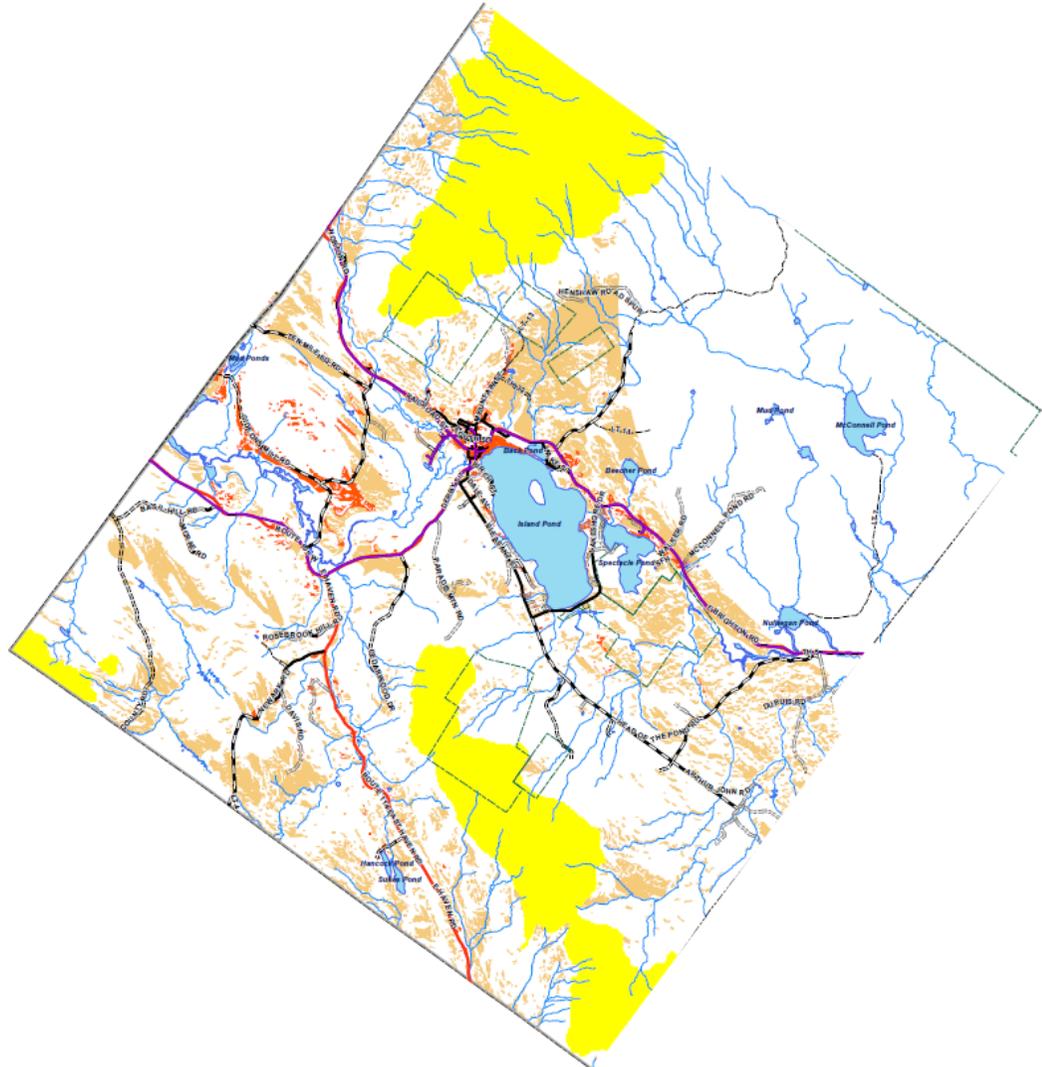
Warning- This Data is for planning purposes only and does not replace a survey and/or engineering study. Because this map is developed from various scale sources, there may be some discrepancies between data layers.



Navigation controls including a compass, hand icon, zoom in (+) and zoom out (-) buttons, a zoom level dropdown set to 75.5%, and icons for home, layers, and print.

Brighton, VT Solar Energy Potential Map

05/01/2017



Legend

- Substation
 - ★ Existing Solar Sites
 - Major electric transmission line
 - 3 Phase Power Lines (Data is not available for all areas)
 - US & State Highways
 - Paved Town Highway
 - Unpaved Town Highway
 - Class 4 Town Highway
 - Town Legal Trail
 - Private Road
 - County Boundary
 - Town Boundary
 - Streams
 - Lakes, Ponds & Rivers
 - Public Lands Boundary
 - Areas Over 2000' Elevation (Proposed Regional Constraint)
- Prime Solar**
- No State Constraint
 - Possible State Constraint



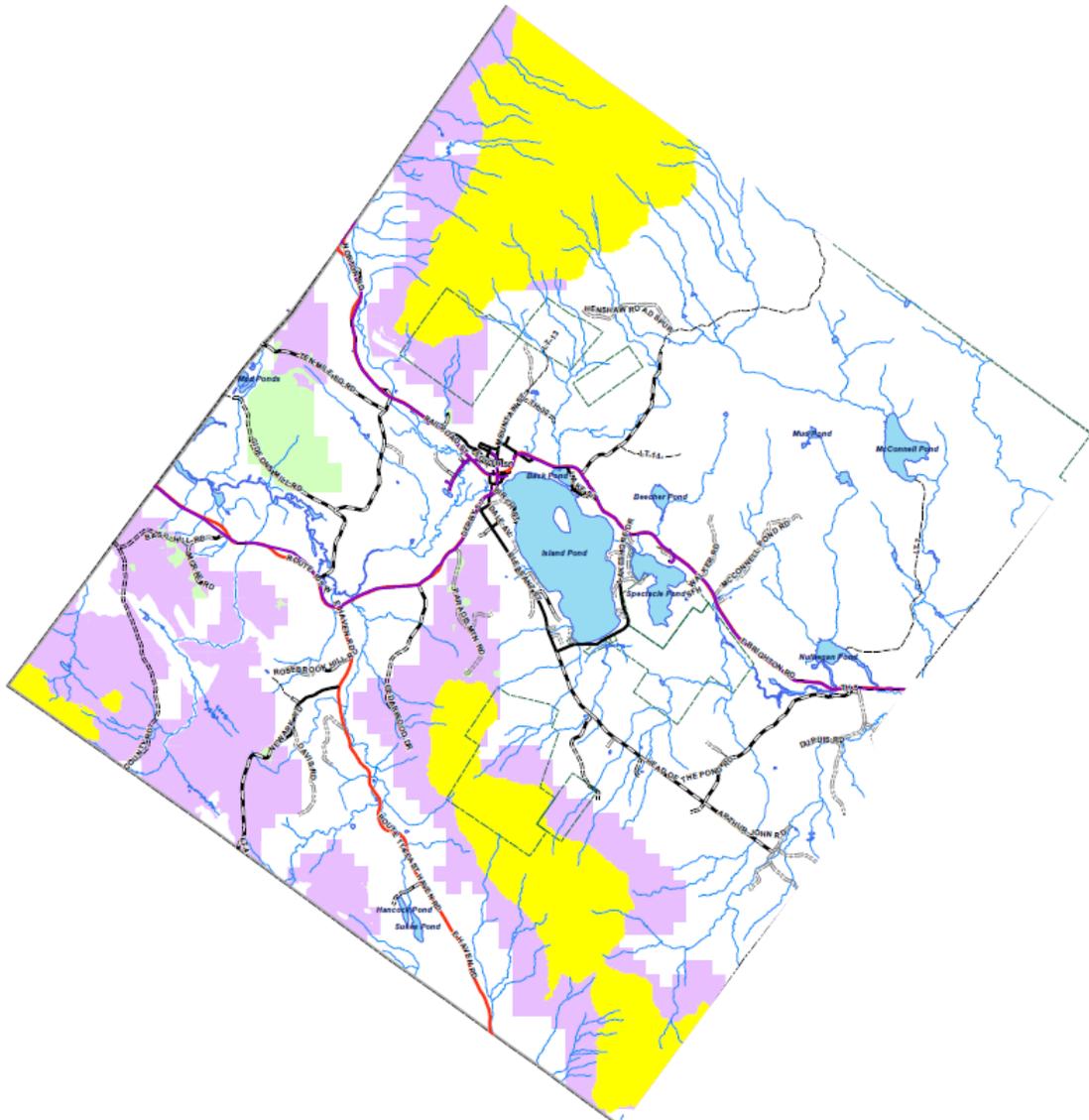
Warning- This Data is for planning purposes only and does not replace a survey and/or engineering study. Because this map is developed from various scale sources, there may be some discrepancies between data layers.



Map navigation controls including a mouse cursor, hand icon, zoom in (+) and zoom out (-) buttons, a zoom level dropdown set to 75.5%, and icons for home, layers, and print.

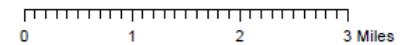
Brighton, VT Wind Potential Map

05/01/2017



Legend

- Substation
- ▲ Existing Wind Power Site
- Major electric transmission line
- 3 Phase Power Lines (Data is not available for all areas)
- US & State Highways
- Paved Town Highway
- Unpaved Town Highway
- Class 4 Town Highway
- Town Legal Trail
- Private Road
- County Boundary
- Town Boundary
- Streams
- Lakes, Ponds & Rivers
- Public Lands Boundary
- Areas Over 2000' Elevation (Proposed Regional Constraint)
- Prime Wind Areas**
- No Constraint
- Possible Constraint

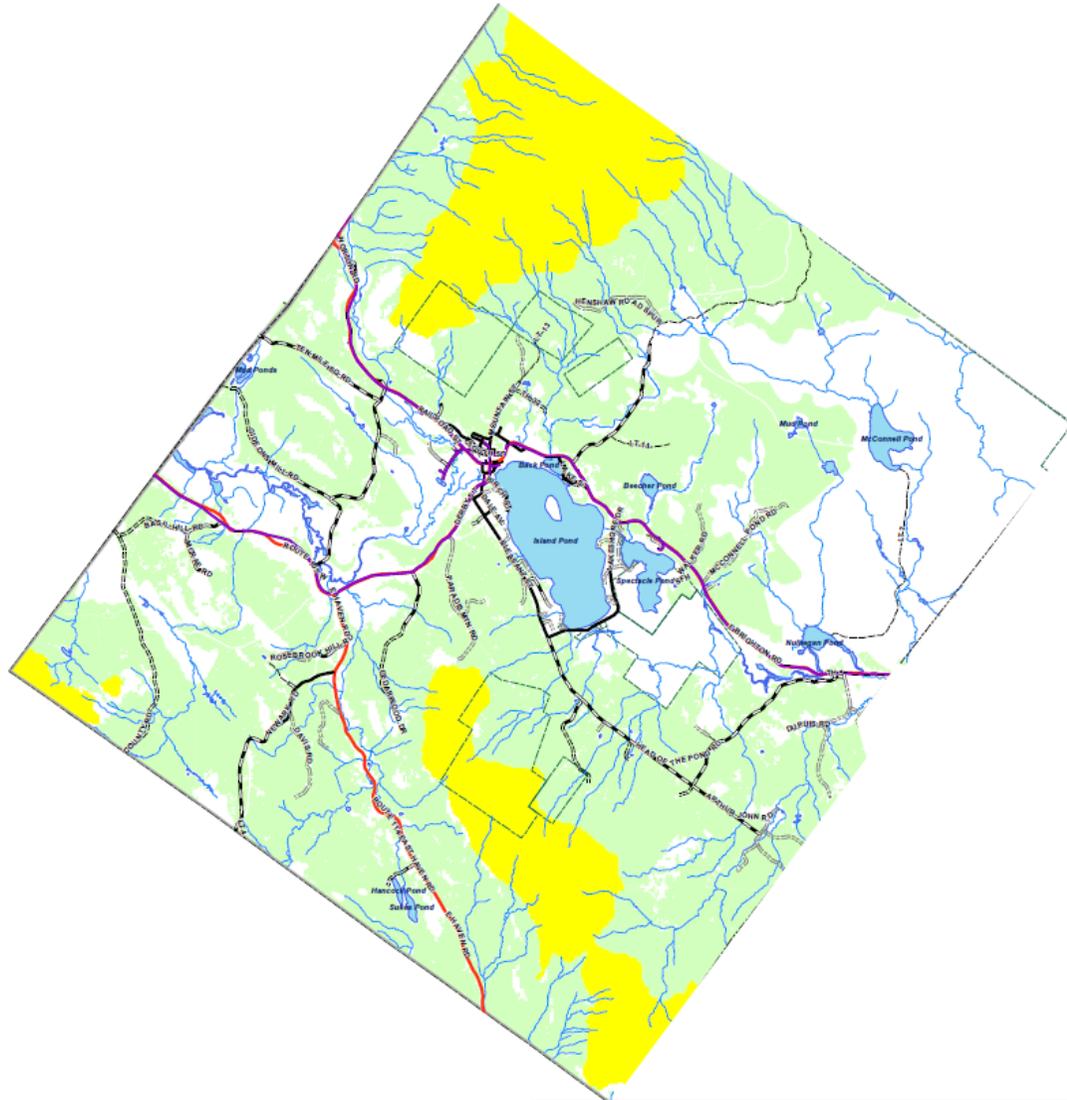


Warning- This Data is for planning purposes only and does not replace a survey and/or engineering study. Because this map is developed from various scale sources, there may be some discrepancies between data layers.



Brighton, VT Woody Biomass Energy Potential Map

05/01/2017



Legend

- Substation
- 🏠 Existing Woody Biomass Facilities
- ➡ Major electric transmission line
- ⚡ 3 Phase Power Lines (Data is not available for all areas)
- 🛣️ US & State Highways
- 🛣️ Paved Town Highway
- 🛣️ Unpaved Town Highway
- 🛣️ Class 4 Town Highway
- 🛣️ Town Legal Trail
- 🛣️ Private Road
- 🛣️ County Boundary
- 🛣️ Town Boundary
- 🌊 Streams
- 🌊 Lakes, Ponds & Rivers
- 🌊 Public Lands Boundary
- 🟡 Areas Over 2000' Elevation (Proposed Regional Constraint)
- 🟢 Woody Biomass Resource Areas

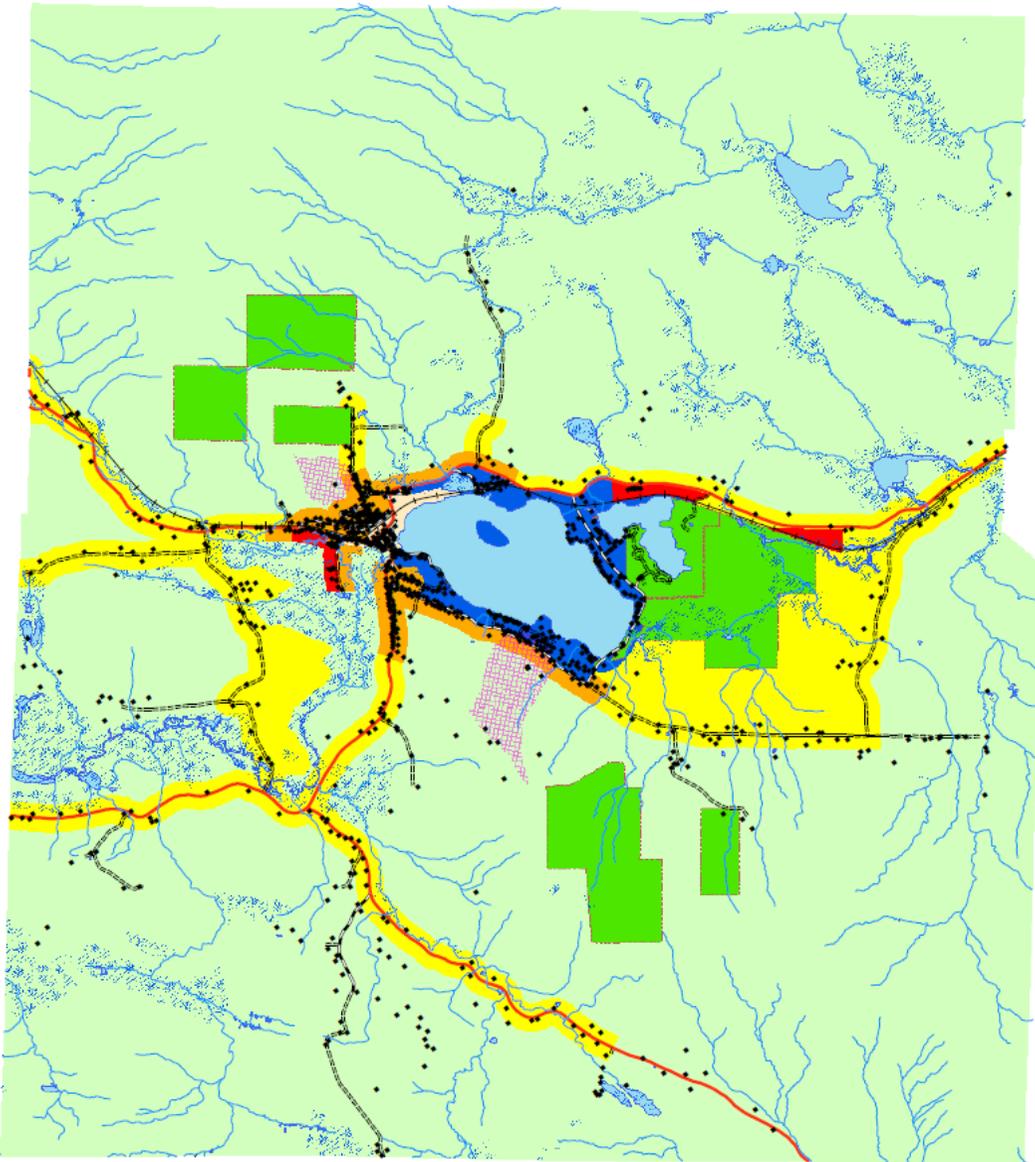


Warning- This Data is for planning purposes only and does not replace a survey and/or engineering study. Because this map is developed from various scale sources, there may be some discrepancies between data layers.



Navigation controls including a compass, hand icon, zoom in (+) and zoom out (-) buttons, a zoom level dropdown set to 75.5%, and icons for home, layers, and print.

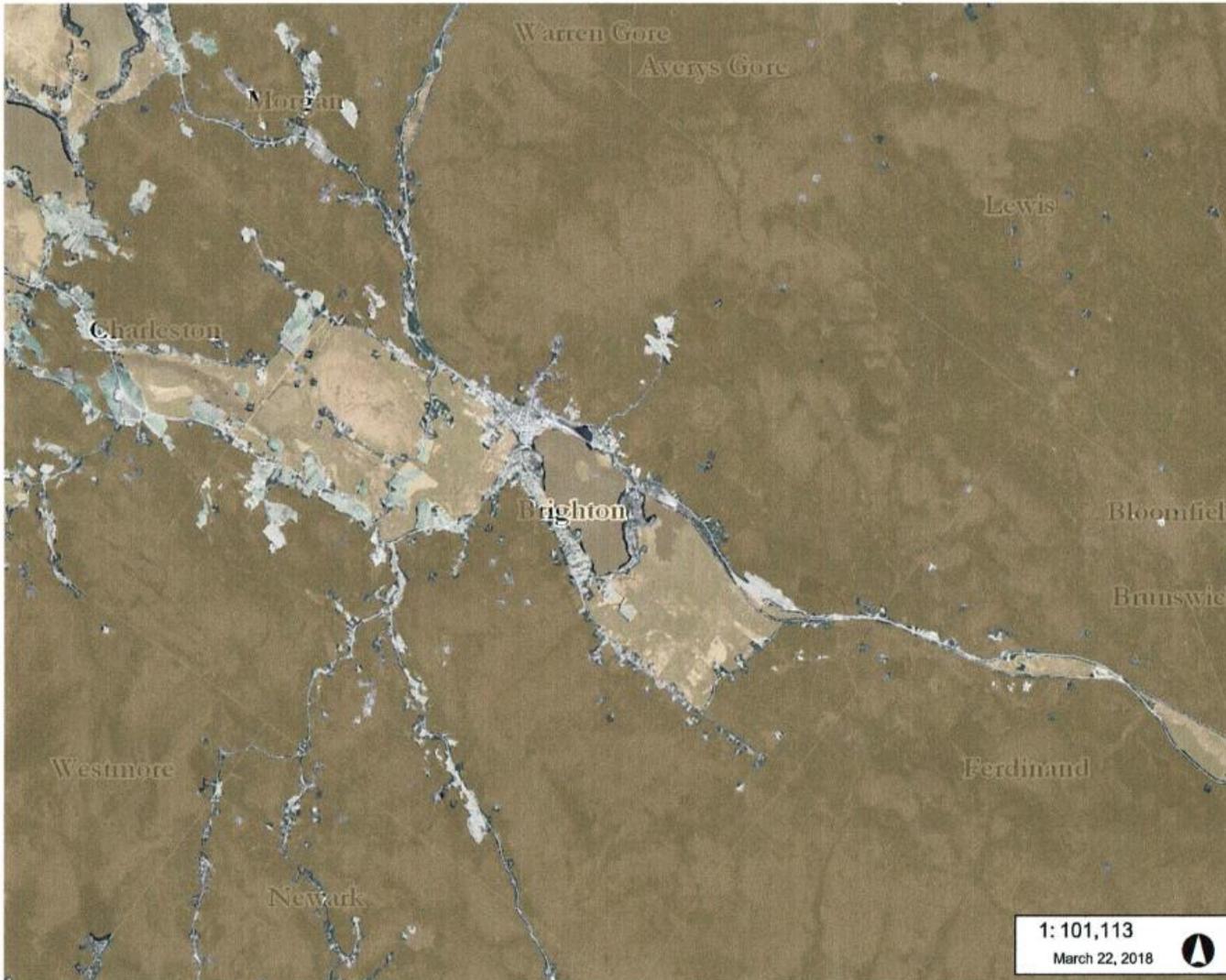
Town of Brighton Zoning District Map



- Building Location
 - +— Rail Line
 - US & State Highway
 - Paved Public Road
 - Unpaved Public Road
 - Wetlands
 - Wellhead Protection Overlay
 - Lakes, Ponds & Rivers
 - Public Lands
 - Town Boundary
- Zoning Districts**
- Industrial
 - Village
 - Neighborhood Residential
 - Rural Residential
 - Lake
 - Rural Lands
 - Conservation



01/29/2013



LEGEND

- Highest Priority Connectivity Blocks
- Priority Connectivity Blocks
- Town Boundary

1: 101,113
March 22, 2018

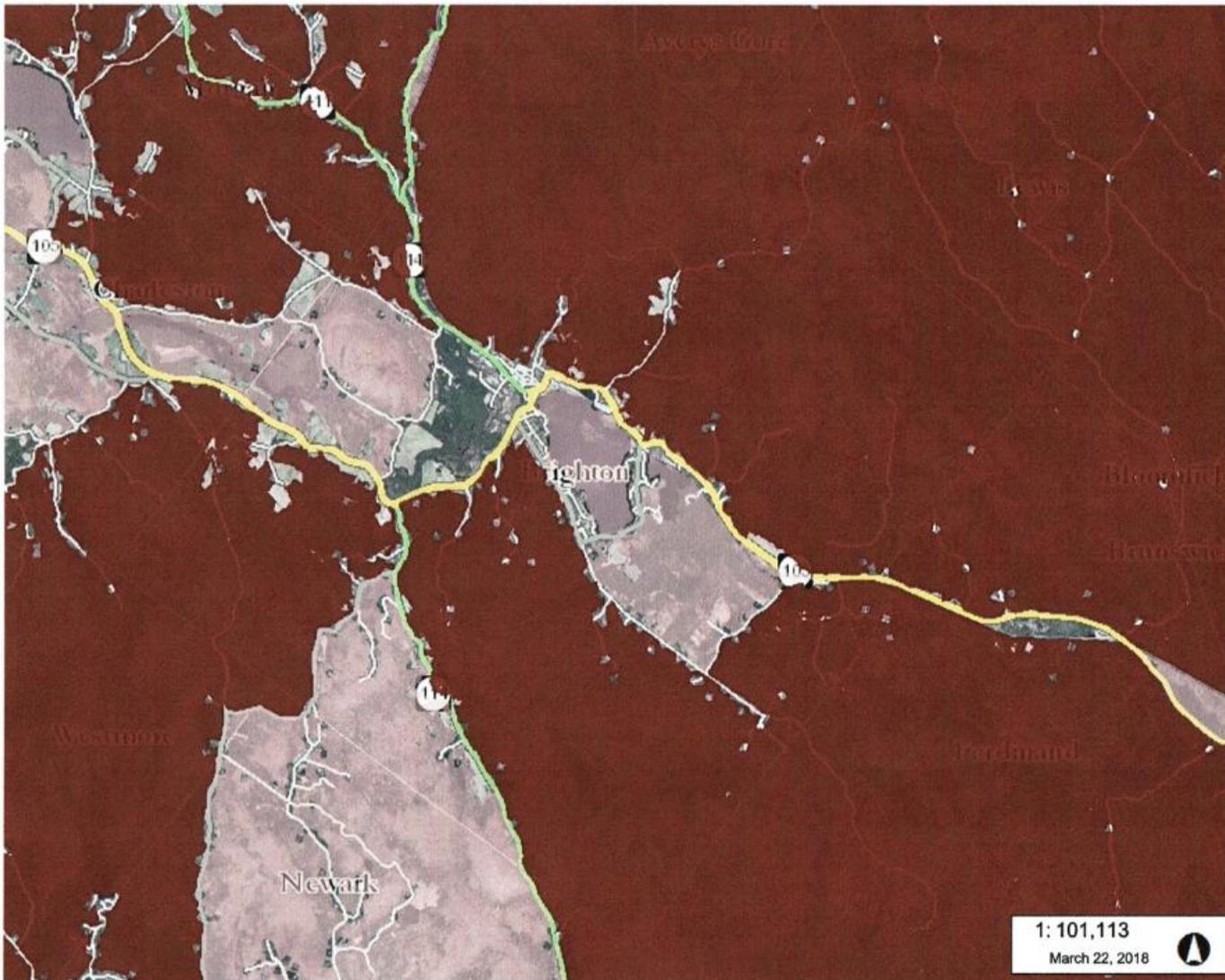
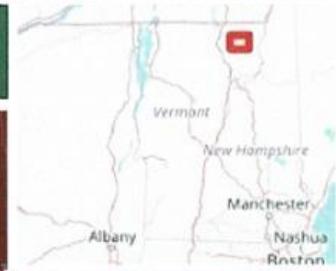
1,685.0 0 842.00 1,685.0 Feet

WGS_1984_Web_Mercator_Auxiliary_Sphere
© Vermont Agency of Natural Resources

THIS MAP IS NOT TO BE USED FOR NAVIGATION

DISCLAIMER: This map is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. ANR and the State of Vermont make no representations of any kind, including but not limited to, the warranties of merchantability, or fitness for a particular use, nor are any such warranties to be implied with respect to the data on this map.

NOTES
Map created using BioFinder



LEGEND

- Highest Priority Interior Forest
- Priority Interior Forest Blocks
- Roads**
- Interstate
- Principal Arterial
- Minor Arterial
- Major Collector
- Minor Collector
- Local
- Not part of function Classification S
- Town Boundary

1: 101,113
March 22, 2018

NOTES

Map created using BioFinder

1,685.0 0 842.00 1,685.0 Feet

WGS_1984_Web_Mercator_Auxiliary_Sphere
© Vermont Agency of Natural Resources

THIS MAP IS NOT TO BE USED FOR NAVIGATION

DISCLAIMER: This map is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. ANR and the State of Vermont make no representations of any kind, including but not limited to, the warranties of merchantability, or fitness for a particular use, nor are any such warranties to be implied with respect to the data on this map.