# ***Sutton Town Plan***

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# I. INTRODUCTION AND OVERVIEW

The Town of Sutton is located in the northernmost part of Caledonia County. Covering 38.2 square miles, Sutton is bordered on the west by Barton and Sheffield, on the northeast by Newark and Westmore, on the southeast by Burke and on the south by Lyndon.

Sutton is a largely rural town of outstanding natural beauty, abundant natural resources, and a strong sense of community. Its residents appreciate Sutton's attractive working landscapes and traditional values. Yet they recognize that, with one foot in the past and the other in the future, the town is challenged by the inevitable changes that the 21st Century will bring.

## A. A Sense Of Place

Sutton's rural environment includes extensive farmland, scenic vistas and wooded beauty, wetlands and wildlife, and a compact village center which is home to several residences, the town's municipal services, the town school, the town hall and garage, a church, a cemetery, and a now vacant former grange hall. The town's beauty and peacefulness have long been recognized. According to the first edition of "A Guide to the Green Mountain State," "The village is touched with an old world quiet and serenity, an air of peaceful decadence" (by the Third Edition to the Guide, in 1968, the "decadence" reference had gone).

The village center is nestled in a high valley surrounded by four commanding ridges: South, West, North, and East. The ridges are delineated by three waterways—the Passumpsic River, Calendar Brook, and the Sutton River—which flow southeasterly toward the Connecticut River. Yet not all waters flow south from Sutton. Several ponds in the northwestern part of the town drain to the north where they comprise part of the watershed that feeds the St. Lawrence River.

Sutton's notable scenic vistas include the following: Hardscrabble Mountain (2,225 ft) to the west; Burke Mountain (3,267 ft) with its ski slopes and famed Burke Mountain Academy to the east; and the dramatic Willoughby Gap to the north. This gap is formed by Mt. Pisgah to the east at 2,751 ft., and Mt. Hor to the west at 2,648 ft. The southern end of Westmore's Lake Willoughby lies between these two mountains. Recreational opportunities abound: downhill skiing at Burke Mountain; cross-country skiing and mountain biking in the Kingdom Trails network in neighboring East Burke; boating, and swimming at nearby Lake Willoughby; fishing on several small trout ponds, brooks, streams, and the West Branch of the Passumpsic River; cycling on scenic town roads; hiking on over 20 miles of trails in the Willoughby State Forest or on several mountains within and adjoining Sutton; and hunting or wildlife viewing in the 413-acre Calendar Brook Wildlife Management Area.

These recreational resources, and Sutton's farms and extensive working forests are vital components of the town's economy. Sutton has been an agricultural community since it was first settled and that tradition continues to this day. Nationwide and in Vermont family farms are increasingly at risk. Many have gone out of business or have been consolidated into larger corporate organizations. Sutton, while facing the same pressures as other rural communities,

continues to be home to approximately 20 family farms, most of which are dairy farms. This continuing agricultural tradition has been an essential component of Sutton's vital working landscape—a landscape in which the wise uses of natural resources are integral to the area's economic well-being.

Forestry is also an important part of Sutton's heritage and contemporary working landscape. Over 5,000 acres of the Willoughby State Forest, 95 acres of the Mathewson State Forest, and extensive private timberlands lie within the town's boundaries.

## B. A Sense Of The Future

Sutton's population has more than doubled from 438 1970, to 1,029 in 2010 (the date of the last official census). Nearly three-quarters of the growth came from the migration of people to the town.

While much of the growth has resulted from Sutton becoming a bedroom community for people who work in surrounding larger towns, other new residents have elected to retire here, in some cases converting seasonal homes to year-round residences.

Sutton residents share a common appreciation for the town's relatively unspoiled natural and working landscapes, peaceful environment, and substantial recreational opportunities. They value the balance of the "pretty and the practical" which characterizes the town. Sutton offers living proof that this balance is best maintained and preserved by those whose livelihoods and well-being depend it.

The following plan is based on Sutton's shared vision of the future - a future in which Sutton in 20 years will look pretty much like the Sutton of today; a future in which any town development maintains a balance between environmental and economic sustainability; and a future in which Sutton and surrounding towns carefully consider both the local and regional impacts of any new growth and development.

# II. HISTORY OF SUTTON

The town of Sutton (originally named Billymead) was granted to Jonathan Arnold and associates on February 26, 1782. Named for Arnold's son, William, it probably meant Billy's Meadow. People from Lyndon and other nearby towns as well as from New Hampshire settled Billymead. Twelve years later, on Independence Day, July 4, 1794, the town was formally organized. Citizens chose James Cahoon to be town clerk and John Anthony, Samuel Cahoon, and Samuel Orcutt as the first three selectmen.

Billy Arnold turned out to be a bully and a drunk, and citizens soon regretted naming their town after this undesirable. In 1810, a resident who had relocated from Sutton, Massachusetts, suggested that the town be renamed "Sutton." and the name was accepted at town meeting. The

name was officially accepted at a subsequent town meeting, and the state recognized the name change in 1812.

Small farms were the mainstay of the town's early economy, but forest products also contributed strongly, because the town's favorable water sources, especially Calendar Brook, provided power for several mills. Alden R. Rennie had a shingle mill; George Bean, a carriage factory; and George Whipple had a firkin factory, which produced small covered vessels were made to hold butter. Records show that a woolen and carding mill burned in 1852. William Dinsmore rebuilt a mill on the same site and also made potato starch. Later the mill became Alfred Burnham's carding mill and a lumber mill as well. He also produced butter tubs and shingles.

There was also a Bundy's grist mill and sawmill, brought on a hand sled from New Hampshire. Ninety years later it was still in use and owned by Freeman Hyde. Near West Burke, Elmer S. Roundy operated another grist mill, originally built by Daniel Beckwith. Roundy also made shingles and sawed lumber there. In later years the U.S. Bobbin Shuttle Mill on Route 5 was a major operation and used a railroad spur that joined the main line.

C. Parker ran a cedar distillery, and Alvin W. Brockway, in the general painting business, had a horse and carriage shop as well. The Orleans and Caledonia Lumber Company operated a steam mill, later owned by Henry F. Pillsbury. Pillsbury's ten Jersey cows on the farm connected with the mill were pronounced the best in the state.

In the early 1800s, Sutton had the distinction of producing more maple sugar than any other town in Vermont. In 1840, for example, the output was 85,430 pounds.

Though early settlers worked long hours in the fields, forests, mills, and shops, religion was an important part of their lives. In 1804, a traveling minister, John Quimby, had helped organize the Freewill Baptists, and some of Sutton's first residents followed this faith. Though they worked long hours in their fields and shops, they often met in their homes for fellowship and worship. On one occasion, it is said, so many crowded into a home that the floor gave out and dropped the worshippers into the basement. Some groups met in the log school house near the center of town.

John Colby, son of Thomas Colby, a farmer and deacon of the church, had become a preacher and was the first minister. Because of financial difficulties partly due to the War of 1812, parishioners were reluctant to pay for building a church, so Colby sold some of his property and built a church near the village cemetery at his own expense.

After many difficulties other Baptist groups were formed and some confusion resulted. A new church was built in 1832 and Rev. Jonathan Woodman, its first minister, reorganized the church as the General Baptist. Again in 1837, the church was reorganized as the Second Freewill Baptist Church. It flourished and for a time was the largest society of its denomination in the state. Today the Freewill Baptist Church stands proudly in the center of the village, with a refurbished white steeple rising above the landscape.

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By the middle of the 19th Century, Sutton was a thriving town. Stephen Easton opened a hotel on Road 26. In 1887 the directory listed the Sutton Hotel with a Lucius J. Campbell as the proprietor.

In 1886 there were ten school districts with ten common schools. Of the 192 pupils, five were in private schools. The village school was originally a brick church when there was more than one community congregation. The steeple was removed and now with additions it is the present Sutton School. The building has been used for Town Meetings and was also used for Grange meetings while the Grange Hall was being rebuilt after it suffered a fire. In 1998, the King George School, a private, year-round boarding school for grades 9-12, was established on the former Grinnell Martin farm property on King George Farm Road. The school provided an alternative learning environment, using art as therapy, for learning-challenged teenagers. The school closed in 2011.

According to the 1888 Directory, almost every propertied family lived off the land. Most were farmers (typically 100-200 acres); many had sugaring operations (several with 1,000 trees or more); and a few had apple orchards. At least three were breeders of Morgan, Cassius, or Percheron horses. Several were teamsters, others were laborers, and a couple were carriage makers. There were beekeepers, mill operators, machinists, soldiers, insurance agents, and clergymen. Other occupations included dealer in sewing machines; peddler of dry goods; tinsmith; postmaster; mail carrier; merchant; "butcher and bleeder of Chester white swine;" blacksmith; school superintendent; and carpenter.

As they do today, some town residents in 1888 combined farming or other occupations with civic duties, serving as Selectmen, town treasurer; town representative; listers; justices of the peace; and deputy sheriff, A few were Jacks of all trades. For example, Gilbert M. Campbell is described as follows: insurance agent, deputy sheriff, 600 sugar trees, 16 cows, 65 sheep, 3 horses, farmer (of) 344 (acres)." Reuben Ellis was equally busy: "retired harness maker, justice of the peace, overseer of the poor, dealer in Bradley's phosphates, 900 sugar trees, farmer (of) 43 (acres)."

A review of the 1888 Directory turns up many family names that are familiar around town today. These include Aldrich, Allard, Berry, Cheney, Dolloff, Easterbrooks, Eastman, Gray, Mitchell, Noyes, Rice, Ruggles, Whipple, Willey, and no doubt many others.

With the advent of the 20th Century, agriculture was still a dominant town industry. The Sutton Grange Hall was built in 1917, and doubled as a Town Meeting site. It burned down around 1937 but was rebuilt on the same location in 1939. Still standing, it housed the town's fire department until 2015 when a new fire department was built on the Sutton-Burke Road.

Sutton has had a town office for 191 years. It was once located in a resident's home. The post office, also located in a resident's home in its final years, closed in 2012**.** The town is now served by the Lyndonville Post office and most town residents still receive mail through RFD. The nearest official post office is in West Burke.

The Willoughby State Forest was developed for reforestation by the Civilian Conservation Corps in the 1930s, but being off the beaten path at that time, did not get much use. Buildings were ravaged by time and vandalism until all that remained standing was a fireplace or two. Although discontinued as a park, it is maintained by Vermont as a state forest.

The town has four cemeteries: South Ridge, North Ridge, East Ridge, and Village. Revolutionary War soldiers who came to the area after the war are buried in South Ridge Cemetery.

Though Sutton's mills have disappeared, energy generation is an important part of the town's economy or environment. The Portland Pipe Line Company, which has transported crude oil from the Port of Portland (Maine) to Montreal since 1941, maintains an automatic pumping station on Route 5 in Sutton. Though Sutton has opposed industrial wind energy within its borders, the town's western landscape is dominated by sixteen 400-foot-high wind turbines located on a ridge in neighboring Sheffield.

Sutton's residents have been farmers, millers, and manufacturers of products from the area's natural resources. They have been foresters, carpenters, inventors, teachers, and soldiers. They have operated businesses and mills, ministered to the town's citizens, and served town and state government. Most of Sutton's successful residents were not marked by fame or fortune, but the town has been home to a number of citizens known well beyond the town's boundaries. Several have represented the creative arts. Book publisher Henry O. Houghton, founder of Houghton, Mifflin Co., and E.O. and B.L. Silver, founders of Silver, Burdett & Co., publishers of schoolbooks, were born in Sutton.

Sutton's residents have always taken pride in their lives and town. From the town's earliest days, its people survived together by sustainably using the water, mineral, forest, and farmland resources and providing for community needs through a vibrant local government, churches, schools, a town garage, a new fire station, and a busy town hall. Sutton's Town Plan, updated here, and its recently revised Zoning Bylaws provide for maintaining the spirit, amenities, and appeal of the community. Sutton's residents care deeply about their community. They appreciate the traditions of the past, and embrace appropriate and sustainable opportunities for the future.

# III. LAND USE PLAN

## A. Geology and Topography

Sutton, situated in northern Caledonia County, is generally level in its southern and central portions, but is surrounded by rises called South, North, East, and West Ridges. The highest point is 2,648-foot Mount Hor, rising at the north end of Sutton and dropping to Willoughby Lake in the Town of Westmore. Norris Mountain at 2,292 feet in the northwest portion of the town is the second highest elevation. Three branches of the Passumpsic River flow through Sutton: the West Branch, Sutton River, and Calendar Brook.

Bogs in the town contain clay and calcium carbonate (marl), which has historically been used to make lime, putty, and plaster, and as an ingredient in fertilizer. Other historical resources include sulphur springs, iron ore, slate, and several ponds, Marl, Vail's, Duck, Blake, Bean, Dolloff, and others. Natural timber is mostly maple, fir, spruce, white pine, birch, ash, and white cedar, especially along the streams.

The geology of the town is a foundation of old metamorphic rock with intrusions of granite and overlaying pockets of limestone. The soils are generally glacial till with many boulders and fragments that were deposited by the glaciers and have since dissolved and rehardened at a depth of one to three feet in many sites. This hardpan limits drainage through soils and contributes to the large amount of wetland in town.

## B. Goals

- Agriculture -- Farming has long been at the core of our community's identity, and this tradition is evidenced by the number of working farms that still exist. The Town should continue to support farms and sustainable farming practices. Care should be taken to keep residences and agriculture in balance. The Town should also attempt to control land conversion by actively supporting the Use Value Appraisal Program. Where feasible, Sutton should also leverage and support appropriate land use tools (such as zoning and conservation easements) to prevent the subdivision of large parcels of land that are economically viable for agricultural purposes. Careful consideration should be given to siting commercial and industrial uses that support the long-term viability of farming, such as agricultural processing.

- Resource-based Industries – Maintaining the viability of forestry is also a core goal. Objectives are to continue sustainable logging practices and manage development so that flood plains and wetlands are not endangered. The town encourages the protection of the most productive tracts of forested lands by actively supporting the Use Value Appraisal Program. Additionally, where feasible, the Town should leverage and support appropriate land use tools (such as zoning and conservation easements) to prevent the subdivision of large parcels of land that are economically viable for forestry purposes. Careful consideration should be given to siting industrial uses that support the long-term viability of forestry and related industries, such as saw mills and value-added processing. Earth extraction (such as gravel pits) is a highly intensive use that requires special care and consideration. Such uses shall be sited so that they do not impair water resources and wetlands, degrade Sutton's roads or create unsafe driving conditions, or disrupt reasonable enjoyment of adjoining residential and commercial uses.

- Recreation in Sutton should be considered a core "resource-based industry." The Town should preserve natural beauty and scenic areas, which are critical assets for the region's tourism and hospitality industries. Visitors to the Kingdom have come to expect an "authentic" experience, one that is best depicted in Sutton's unspoiled natural resources and scenic viewsheds. Late in 2012, an infusion of foreign-based EB-5 funds sparked a

number of new economic development initiatives in the Northeast Kingdom. Although the EB-5 Regional Center is now closed (see Section VI, Economic Development), it did support substantial new development at neighboring Burke Mountain in East Burke. EB-5 investment funds at this mid-sized resort enabled a number of expanded services and amenities, including a new hotel, ski lifts, and mountain biking facilities. East Burke village is also experiencing rapid development and undergoing a "facelift" as the Kingdom Trails mountain biking network expands into adjacent towns. These recent economic initiatives will strengthen the region's outdoor recreation appeal, opportunities, and amenities and Sutton can benefit accordingly, because of its scenic natural resources.

- Residences - Respondents to the 2002 Survey of Residents (Survey) wished development to "stay the same." While nothing ever stays the same, the Town can do its best to honor this desire by encouraging orderly and compact development that minimizes impacts to rural and agricultural land uses and the town's scenic, natural beauty, and by encouraging more housing in and around the village and adjacent to paved roads in the southern portion of the town. A new survey has been budgeted for 2019.

- Commerce – The Town should encourage home-based businesses. In this regard expansion of affordable broad-band Internet access is essential. The potential sale of the former King George School property to a responsible buyer who will preserve the rural character of the area represents an economic opportunity for a low-impact commercial venture such as a training or conference center. The town needs businesses that place few demands on town services but that generate tax revenue. Most residents seek retail services in Lyndonville, Barton or West Burke. Local child care services should be encouraged, as they are important to the economic well-being of families with two working parents, as well as single parent households. Other appropriate local businesses that could be encouraged include the manufacture and sale of value-added agricultural and forestry products and businesses that support the region's growing tourism and recreational opportunities (including snowmobiling, skiing, mountain-biking; paddling; hiking; fishing; hunting; and local arts and crafts).

- Industry – Through the creation of a Commercial/Industrial District, the Town should support existing industrial activities and encourage additional development along the Rte. 5 corridor where there is rail access and proximity to three-phase power. The Town should work to upgrade the capacity of the power line and ensure that it is completed for the entire length of the corridor. If any industry should develop, great care should be taken to safeguard the environment and rural quality of life - including quiet and peaceful night skies.

- Public buildings - No changes are immediately necessary. A new fire station has been constructed and the municipal water system upgraded to support further residential growth in the village. The Grange Hall sits vacant in the center of the village and presents a potential future opportunity for conversion to a public building, such as a town community center.

## C. Existing Land Use

*1. Forestry*

The forests of Sutton are classified as mixed northern hardwood/softwood. Although logging is an ongoing activity in Sutton, there has been no large clear-cut logging in Sutton. The regenerating forest provides habitat for white-tailed deer, black bear, moose, snowshoe hare, ruffed grouse, woodcock, bobcat, fisher, coyote, beaver and mink and the ponds and rivers are home to brook trout. As these are remote and sensitive areas, the Sutton Zoning Bylaw currently limits intensive development in woodland areas. The total area of the town is 24,563 acres of which the State of Vermont administers 5,226 acres (21.2%) of Sutton's land and there are 7,986 acres (32.5 %) in Current Use. All of these lands have a management plan.

An inventory of the region's wildlife habitat connections demonstrates interdependence with neighboring towns, the Northeast Kingdom, and beyond. Coordinated conservation efforts in New York, Vermont, New Hampshire, and Maine are working to identify important areas within the larger northern forest region that provide a wildlife corridor from the Adirondacks in New York through the northern forest of Maine and beyond. A "wildlife corridor" at this larger, regional scale is composed of blocks of forest and connecting lands that many animals need for sufficient food, cover, and access to mates. The forest blocks provide prime wildlife habitat while the connecting lands—often small forest and woodland patches, wetlands and river corridors—allow wildlife movement across the landscape between larger forested blocks.

A key component of this work involved the identification and mapping of large unfragmented forest blocks by the Department of Fish & Wildlife and the Vermont Land Trust, which can be viewed on the Agency of Natural Resource's "Biofinder" mapping tool. (http://anr.vermont.gov/maps/biofinder) Forest blocks larger than 20 acres are mapped statewide, but are identified generally as "habitat blocks". Although smaller areas may support some biological diversity and connectivity, such areas provide little interior forest habitat.

An assessment of Biofinder data subsets helps to identify priority planning areas for Sutton:

**Highest priority interior forest blocks**: Areas with high-quality interior, unfragmented core forest cover (i.e. land that is more than 100 meters from the non-forest boundary.

**Highest quality connectivity blocks**: Land or water that function as "stepping stones" between core forest, as well as riparian habitat, or strips of forest cover between developed areas.

The wetlands and state lands maps are located in the town offices, and an 11"x17" set of maps are appended to this plan.

*2. Recreation*

Sutton's natural resources provide many opportunities for outdoor recreation. The ponds and streams provide fishing areas. Hunting for deer, moose, rabbit, game birds are popular in Sutton.

According to the 2002 Survey, only small percentages (18%) of landowners post their land to prevent trespassing, but posting may be emerging as an issue because of unauthorized Off Highway Vehicle (OHV) use. The Selectboard acted in 2013 to close all public (Legal) trails in Sutton to ATV use and town residents reaffirmed their desire to maintain these restrictions in a vote at a special town meeting in August, 2018. Snowmobiling takes place on the Vermont association of Snow Travelers (VAST) trails through Sutton. Residents and visitors also cross-country ski and snowshoe on trails and back roads.

Cyclists enjoy the scenic beauty and rolling hills of Sutton's roads. There is a park at the Sutton School with a playground, baseball fields, a basketball court and a volleyball court. A gymnasium in the school provides space for other activities.

Numerous recreational opportunities for Sutton residents also exist outside of Sutton. With state forestlands and both the Green and White Mountains within an hour's drive, there are many places to go hiking and skiing, both Nordic and Alpine. Cycling (mountain and road biking) is an increasingly popular activity in and around Sutton. In addition, there are many cultural opportunities not far from Sutton. These include Catamount Arts, the Athenaeum, and the Fairbanks Museum in nearby St. Johnsbury, and at Northern Vermont University (NVU) in Lyndonville. NVU and the area's high schools also offer sporting events that people can attend. It is also possible to engage in many other recreational pursuits both in and outside of Sutton. Of emerging importance to the Town is the ongoing expansion of Burke Mountain Ski Area and the Kingdom Trails mountain biking network. These expansions will increase residential development pressures for both year-round and seasonal homes.

*3. Agriculture*

There are presently nineteen farms in Sutton. Three of these, the Simpson Farm, the Don Sim Farm, and the Weed Farm -- are in the Vermont Land Trust, and their open fields and spectacular views will be permanently protected. Many other farms are enrolled in the Use Value Appraisal or Current Use Program, which discourages, but does not prevent, development. The 2002 Survey results indicated that residents value agriculture and wish to support local, small family farms. Through the conversion of field areas, however, residential development has begun to fragment farm lands and impede agricultural practices. Agricultural vehicles driving through the village and manuring practices sometimes cause concern to local residents. Other farms in the Town of Sutton include the Solinsky Farm, Seymour Farm, Riendeau Farm, Jackson Farm, Dennis Royer Farm & Meat Processing, Tanner Farm, Sylvester Farm, Belanger Farm, Brouha Farm (leased to the Solinsky Farm), Jesseman Farm, Patoine Farm, Dexter Farm, Lepine Farm, Geremaia Farm (leased to the Solinsky Farm), Devereaux Farm, Peck Farm, and Burton Hodge farm (leased to Simpson Farm). These and other smaller, less actively, managed farms include some of the most scenic areas in Town.

*4. Residential*

According to the 2010 Census, there are 486 housing units, 403 of which were occupied. Of the occupied units, 341 were owner-occupied, and 62 were renter-occupied. The remaining 83 units

were vacant, with 49 units held for seasonal, recreational, or occasional use. The remaining 34 vacant units were either for rent, for sale, had been rented or sold but not yet occupied, or had been classified as "other."

There has been a dramatic increase in primary homes in Sutton in the past four decades; many young families are moving to the area (according to the 2010 Census a quarter of Sutton's population is 19 years old or younger). Scattered residential development fragments agricultural fields and forestlands and strains limited town services. State regulation of wastewater management affects development in town because wet, clay soils in some areas require special septic systems. Respondents to the 2002 Survey overwhelmingly supported the protection of ground water. Poor soils and septic suitability will likely limit development in outlying areas to some extent. Nevertheless, the long-term trend of large-acre development in outlying rural areas threatens to fragment Sutton's natural resources and working lands. Sutton has attempted to address this issue in its 2017 revision to the Unified Development Bylaws by specifically designating a Working Lands District and strongly encouraging density-based zoning in that district to preserve, to the extent possible, large tracts of open land.

*5. Commerce*

Other than agriculture, maple sugaring, forestry, earth extraction enterprises, Evergreen Forest Products sawmill, and Spencer's Garage, there is little visible commerce in the town. Survey respondents would like to see more home-based businesses (child care, hairstyling, pottery, computer businesses, etc.). Several respondents proposed developing more of a village center with perhaps a small store, but with the closure of the Sutton Post Office and with the proximity of stores in West Burke development of such an enterprise is unlikely in the foreseeable future. Nevertheless, pursuit of Village Center Designation in Sutton Village may help to stimulate appropriately scaled commercial activity. The designation, which is conferred by the State of Vermont, is valid for eight years and does not impose a restriction on development. Rather, it makes tax credits available for fit-up on commercial properties. The Town should consider pursuing this designation.

The King George School, which was a private boarding school, was an important asset to the Town of Sutton. This school did not demand much in the way of services from the Town and added to the Town's tax base. The school's closure in 2011 significantly reduced the Town's tax base.

*6. Industrial*

The Town of Sutton has only three land uses that could be considered industrial in nature. The first is the Evergreen Forest Products sawmill on the Calendar Brook Road. The second is the Portland Pipeline. This pipeline follows Route 5 as it passes through the Town from Burke to Barton. Finally, located on the west side of Route 5 just outside of the village of West Burke is the Old Burke Mill. This mill, however, closed in 2001 and the site is being used as a log yard. This change in use reduced the Town's tax base. A feasibility study was done on this property

which looked at the possibility of establishing a wood pellet manufacturing plant (the study concluded such a plant was feasible and would be profitable).

*7. Public and semi public*

While predominantly residential, Sutton's village center contains the Town Clerk's office and Town Garage, Sutton School, the now-vacant Grange Hall, and Sutton Baptist Church. The Post Office was permanently closed during the spring of 2011, and a new fire station was built on the Burke-Sutton Road, just outside the village.

The Town Clerk's office contains the town offices, two small public meeting spaces and a safe. While the first floor of the building is handicapped accessible the second floor is not. The building does have public restrooms and ample parking. Attached is the town garage, where road maintenance equipment is kept and maintained.

The Sutton Town School is on the adjacent property and houses approximately 110 students in grades K through 8. The multipurpose room in the school is used by public and private groups for meetings, activities and community dinners.

The Grange Hall is also located in the village center. Although it is not currently used, it is of sound construction and could be restored to accommodate community uses. At some point in the future further consideration should therefore be given to repurposing the Grange Hall.

The Sutton Baptist Church is a beautiful landmark in the village center. It has regular Sunday services and has undergone an extensive restoration.

*8. Open spaces reserved for*

a) Flood plains and river corridors

At this time, flood hazard areas in Sutton have been mapped at low resolution. The town restricts development in the floodway (the area that consists of the stream channel and the immediately adjacent areas that carry flood flows). The existing Federal Emergency Management Agency (FEMA) maps include areas of special flood hazard along the Calendar Brook, the Sutton River, and the West Branch of the Passumpsic. The Town participates in the National Flood Insurance Program (NFIP).

There are obvious advantages to participating in the National Flood Insurance Program. All property owners in town, for example, are able to obtain flood insurance at more affordable rates. Meeting the minimal requirements with NFIP standards, however, will not begin to address the losses caused by fluvial erosion. Ironically, this type of flood-related damage occurs frequently in Vermont, due in part to the state's mountainous topography. This form of damage can be sudden and dramatic in major storms. The Vermont Agency of Natural Resources River Management Program conducts geomorphic assessments to delineate river corridors. A small stretch along the Calendar Brook has already been assessed, and ANR has mapped all of

Calendar Brook to identify the "meander belt" (i.e. the minimum space to allow for lateral movement of the stream channel, while incorporating a 50-foot natural vegetation buffer for streambank stability. For streams with a drainage of less than two square miles, it is assumed that a 50 foot vegetation buffer will suffice to ensure streambank stability.

Whatever choices we make today will determine the consequences of flood and flood-related events for years to come – not just in Sutton but to our neighboring downstream communities. This plan therefore recommends a conservative approach that goes beyond the minimal thresholds for NFIP participation. Most forms of development within Sutton's floodplains and river corridors should be prohibited. The Town of Sutton also supports the completion of more geomorphic assessments and incorporating these areas into the town's flood maps so that such hazards can be managed appropriately. Until such assessments are completed, this plan also calls for the protection of areas that may be subject to fluvial erosion by establishing provisional buffers.

b) Wetland protection

As with the flood plain areas, there are no wetland areas that have been set aside for conservation. However, the Town of Sutton discourages any kind of development in wetland areas. The community is very concerned (according to the 2002 Survey) about water quality and the protection of wildlife habitat. New state regulations regarding water quality should help prevent development within wetland areas.

c) Other conservation purposes

The current Unified Development Bylaws (adopted in 2017) include a Working Lands District devoted to the protection of the agricultural and forested areas in Sutton so that they can be maintained for their food production, resource, and recreational values. Improvement and maintenance of wildlife habitat integrity (such as highest priority forest blocks) was also an important consideration in the establishment of this district.

Much of the Willoughby State Forest lies in the northern corner of the Town of Sutton. Within this area are a number of small ponds and some wetlands. This state forest includes a relatively mountainous landscape including Mt. Bartlett, Mt. Hor, and Wheeler Mountain. The small Matthewson State Forest lies along Sutton's western boundary mainly within the Town of Wheelock.

Finally, the 413-acre Calendar Brook Wildlife Management Area provides watershed protection, wildlife habitat, and a robust brook trout fishery.

## D. Proposed Land Use

*The Town of Sutton: A Vision for 2040*

This is a strong statement of our vision for the future. As wished by its residents, in many respects Sutton has remained the same over the past several decades. The scenic beauty of our forested ridgelines, highlands, and vistas has been maintained (with the exception of the Sheffield Wind Project, the ridgeline for which is in Sheffield but which visually dominates the Town of Sutton). We have stemmed the loss of family farms that occurred in the late 1900s. Together with our working forests, our farms continue to sustain a natural resource-based economy that complements the economic activity from recreation and the increasing number of residences in the town. We have retained the balance of the "pretty and the practical" and kept most land uses the same. Our wildlife management areas and state forests increasingly play a role in providing places for Sutton residents to hunt, fish, hike, and participate in other non-motorized recreation. Fortunately, our private lands in general have also remained open to such activities, and there has been little need to post lands against trespass. While the Town's population has continued to grow, the explosive 128 % growth from 1970 to 2000 has now slowed because Town residents are well aware of the cost of new services (enlarged school, more miles of paved roads, and new/expanded municipal water system) to support increased development. Incentives have been put in place to encourage development in the commercial/industrial and village districts, and the rural residential district has been focused in the southern part of the Town along major paved roads. Through negotiations with surrounding towns (with the exception of Sheffield) and the NVDA (our regional planning commission), we have achieved continuity of land use policy across the landscapes that can be seen from the Town.

Sutton has two goals to achieve a balance between growth and the sustainability of our resource-based economy:

**Maintain the viability of Sutton's working lands by protecting them from fragmentation and the introduction of incompatible uses.**

**Site industrial and commercial uses of an appropriate scale in close proximity to U. S. Rte. 5 and existing supporting infrastructure.**

*1. Forestry*

This plan recognizes the need to preserve a minimum acreage for economic viability of agriculture, forestry, maple production, and Christmas tree production activities. Every effort should be made to maintain the large, unfragmented tracts of woodland habitat in Sutton and to keep them connected to each other. In pursuit of this goal the Unified Development (Zoning) Bylaws encourage concentrated development and include a maximum density of one unit per 10 acres (leaving a minimum of 25 undeveloped acres in one lot to ensure continued eligibility for enrollment in Vermont's Current Use program). The goal is to simultaneously protect the environmental integrity and economic viability of the town's undeveloped working lands.

*2. Recreation*

Recreational pursuits are important to help people maintain their physical and mental health. Therefore, it is equally important for the Town of Sutton to maintain the roads, public areas, and facilities that are currently being used for recreational purposes. The Town may even wish to consider the creation of additional recreational facilities such as bike paths, trails, or tennis courts, for example. At a minimum the town should undertake to put together an inventory and description of recreational facilities around the area which could be posted on local websites and be available in hardcopy for distribution. Careful protection and investment in Sutton's recreation resources will help the town capitalize on the growth and expansion that is planned for this region. The town is especially fortunate to have access to thousands of acres of state forest land and wildlife management areas within the town's boundaries. All of these areas have management plans. The Town should play a more active role in maintaining these plans.

*3. Agriculture*

The residents of Sutton want the continuation of working farms in Sutton. They feel these lands merit special consideration because of their unique topography, distance from incompatible uses, spectacular viewsheds, and exceptional resources that support both farming and the region's wildlife and natural communities. Therefore, the Planning Commission encourages our farmers and other large landowners to place their farms/acreage in a land trust and/or in Current Use as a means of protecting these important lands. The Planning Commission requests that the Selectboard meet with farmers to discuss the tax and other benefits of enlisting in such programs. The town strongly encourages participation with programs that can protect the long-term viability of farming, including, but not limited to the Vermont Housing & Conservation Board, the Vermont Land Trust, and USDA's Natural Resource Conservation Services and Farm Service Agency.

*4. Residential*

In a town like Sutton that serves as a bedroom community for the surrounding towns, residential development could perhaps create the most problems as it will likely exceed other types of development. Residential development should be clustered in areas that have the soils that will support foundations, with ready access to on-site potable water and wastewater systems. In addition, such areas must also have access to good roads to avoid impact to areas that should not be traversed by automobiles. Perhaps the best area for future residential development would be in the southern half of the Town, particularly in the vicinity of the Village of Sutton.

Sutton has seen an increase in year-round residences and a drop in seasonal residences over the past three decades. (See the table below.)

| **Sutton** | **1980** | **1990** | **2000** | **2010** |
|---|---|---|---|---|
| Total Housing Units | 303 | 370 | 439 | 486 |
| *Rate of change* | | *22.1%* | *18.6%* | *10.7%* |
| Total Household | 225 | 297 | 366 | 403 |
| Vacant/not seasonal* | 7 | 20 | 23 | 16 |

| | | | | |
|---|---|---|---|---|
| Total Year Round | 232 | 317 | 389 | 419 |
| % Year-Round | 77% | 86% | 89% | 86% |
| Seasonal/recreation | 71 | 53 | 50 | 49 |
| % Seasonal/recreation | 23% | 14% | 11% | 10% |

Source: US Census

*Vacant/not seasonal typically includes housing units for rent or sale currently unoccupied.

In 2012 the Sutton Planning Commission conducted a build-our analysis (see inset) to determine the net yield in residential development that could be expected under its existing zoning standards. This build-out took into consideration historic growth rates from the past four Censuses – roughly a 17% increase in households every 10 years. A build-out analysis cannot predict exactly where a housing site will go, nor can it predict or account for real estate market fluctuations. Nevertheless, the analysis resulted in a conservative estimate of about 730 housing units by 2040 and predicted scattered development throughout the town. Clearly, with such development Sutton will dramatically change.

**What is a Build-Out Analysis?**

A build-out analysis is a planning tool used to determine that amount and location for future development. Sutton's analysis accounted for existing development regulations (e.g. minimum lot sizes, setbacks, etc.) as well as impediments to development, such as wetlands, conserved lands and conservation easements.

The analysis also assigned efficiency factors to keep the build-out somewhat "reality-based." Therefore, Sutton's analysis used the steady increase of housing units over the past three decades as an indicator, estimating a total of 730 units by 2040. The projection attempts to account for the long-term trend of shrinking average household size and a currently sluggish and unpredictable real estate market.

What we can assume from the build-out analysis is that development pressures will intensify. Sutton's current Unified Development Bylaws (2017 Revision) include a Working Lands District with a goal of minimizing fragmentation and preserving open lands.

As described above, the Working Lands District adopts a density-based approach to regulation, with an emphasis on siting development away from the core of productive and resource-rich lands. Future development should be clustered in a way that allows for efficient use of land and resources, yet still allows the privacy that one expects in a rural setting.

Density-based regulation may be most effective if the lots created are much smaller than 10 acres (even as small as one acre). Allowing for the creation of smaller lots (while preserving the agricultural and forestry uses and natural resources on the larger portion of a parcel) may also make it easier to set aside homestead areas when conveying conservation easements. Currently organizations such as the Vermont Housing & Conservation Board must adhere to local minimum lot sizes when setting aside homestead parcels from conservation easements. This often results in the creation of a development parcel that is much larger than necessary. Allowing for the creation of smaller development lots may also allow cash-strapped owners of large property holdings to sell off smaller parcels of land in order to retain the largely unfragmented remaining land.

Density-based regulation is not fail-safe, however, and careful consideration must be given to creation and siting of residential lots and clusters. And, regulation is not the only answer. We can only ensure the long-term viability of Sutton's working lands with a comprehensive approach that includes the following strategies:

- Continue support for the Use-Value Appraisal Program (Current Use).
- Support the preservation of working lands through the conveyance of conservation easements.
- Support the long-term viability of Sutton's working lands by recognizing the value of silviculture and agriculture as a form of local employment. Promote the sale of locally produced foods and locally sourced and/or manufactured wood products.
- Give special consideration to industrial uses that utilize Sutton's silvicultural and agricultural resources.
- Encourage diversified agricultural production and on-farm commercial endeavors that may enhance the financial viability of the primary farming operation. Such endeavors may include on-farm processing (e.g. cheese making, microbrewing) and other value-added enterprises; on-farm cafés; or the direct sale of agricultural products, including those not principally produced on the farm.

*5. Commerce*

As Sutton is increasingly a bedroom community for the larger towns in the area it seems unlikely that there will be much commercial or industrial development in Sutton. However, in the interest of the Town's economic future, this plan recommends that any intensive commercial development, other than home or on-farm occupations, take place in a designated Commercial/Industrial District and, with consideration to scale, in the Village District of Sutton. Creation of a Commercial/Industrial District has been established (2017 Sutton Unified Development Bylaws) along Route 5, which has a railroad line, and availability of three-phase electric power. This will encourage (and restrict to) manufacturing in areas that can take advantage and have access to the additional transportation and other services needed. It will also relieve pressure on other districts in the Town. The Town should consider short-term tax incentives, which would provide an incentive for new development in this district.

Home occupations (home-based businesses) provide good opportunities for minimal-impact economic opportunities in the Town of Sutton and are therefore encouraged. A home occupation is defined in statute as a business that is 1) carried on within a person's home by the occupant thereof, 2) uses a minor portion of the dwelling, and 3) does not change the character of the neighborhood. Some uses may exceed the definition of home occupation yet may be carried on outside of the primary dwelling provided that the use does not create an undue adverse impact on the character of the neighborhood. Such uses should only be considered as an accessory to the primary residential use, and the scope and scale of the activity shall be limited in order to ensure

that the activity remains secondary. In addition, the home-based business shall not create impacts that are uncharacteristic of the areas in which they are located (such as abandoned vehicles or equipment, traffic, and noise), and they shall not interrupt neighboring residential uses or interfere with activities of daily living. Home-based businesses shall also not interrupt neighboring forms of home employment.

*6. Industrial*

Sutton is increasingly seen as a bedroom community for Lyndon and St. Johnsbury, rather than as a place for industry. Narrow, hilly roads discourage any large industry from being developed in most of the town. The 2017 Unified Development Bylaws restrict industrial development in the Town of Sutton to areas identified by Sutton Planning Commission, which conducted a site suitability analysis (see inset) to help determine where industrial uses might be located without creating undue adverse impacts to Sutton's rural character.

The suitability analysis confirmed the ability to locate industrial uses, with some limitations. The Town of Sutton recognizes that some resource-based industries, such as log handling, wood pellet production or lumber milling may entail unenclosed uses that may generate noise, heat, vibration, and some truck traffic. These uses are deemed most suitable for areas on Route 5, where they may be sited in order to minimize undue adverse impact to the surrounding areas.

**What is a Site Suitability Analysis?**

A site suitability analysis is a GIS-based process to determine the appropriateness of any given area of land for a proposed use. Sutton's industrial site suitability analysis was performed on a parcel-by-parcel basis, taking into account a number of factors, such as proximity to state and U. S. highways, three-phase power, rail transport, and electric substations. Unsuitable factors, such as overlap with natural resource constraints and prime agricultural soils, farmed and open lands, and conservation easements lowered a parcel's suitability score.

The suitability analysis confirmed a reasonable amount of acreage along U. S. Route 5 could accommodate industrial uses. Due regard, however, must be given to wetlands and some floodplain areas. Furthermore, steep slopes along Route 5 may result in lots that are either too shallow to develop or difficult to access.

Whether the use entails enclosed or unenclosed activities, all industrial uses shall be sited according to the following standards (based on the 2017 Sutton Unified Development Bylaws):

- The use shall not impair Sutton's wetlands or water resources. Potential runoff and nonpoint source contamination shall be minimized through the use of natural vegetation buffers and by minimizing impervious services.
- Traffic shall not degrade Sutton's road system, and usage, and impacts shall not outstrip the town's current ability to maintain and service roads.
- Traffic and road access shall not create unsafe driving conditions.
- Uses shall be compatible with existing neighboring properties and shall not generate heat, dust, smoke, fugitive light, noise, electrical interference, or odors that can be detected at the edge of the lot.

- Uses shall not create public health or fire hazards.
- Uses shall be sited in a manner that avoids fragmentation of working lands and does not impair required agricultural practices or silvicultural best management practices.

When evaluating potential industrial uses for a rural community like Sutton, the issues of scope and scale become absolutely critical. This plan envisions relatively *small* industries with an approximate footprint of 10,000 to 20,000 square feet. Anything that exceeds 30% of building coverage or more than 50% impervious surface coverage on the lot or exceeds 50 feet in height should be considered to be out of scale with Sutton's rural character. Some industrial uses may entail unenclosed activity, particularly industries that utilize wood or lumber. Industries that can demonstrate an ability to protect the long-term economic viability of Sutton's forestry and farming traditions should be given special consideration.

Wind energy development is a potential industrial activity that has been considered for high elevation ridgelines in the northern portion of the Town (Norris Mountain and adjacent summits and the higher elevation summits and ridgelines in the Willoughby State Forest). As the Sheffield Wind Project has demonstrated, such developments because of their visual impact, their accompanying noise, their potential impact on wildlife and the environment, and their impact on property values are not appropriate for these areas or in adjacent areas in other towns where Sutton's viewshed is affected. (See siting standards in the Energy Chapter.)

*7. Public and semi public*

Buildings and activities necessary for the conduct of municipal business and provision of public services should be permitted in those areas where need is anticipated. They should be located in or near the Village District to make them easily accessible to Town residents unless the nature of a particular public or semi-public use requires it to be located outside of the village (town forest or gravel pit for example).

*8. Open spaces reserved for*

a) Flood plain

With participation in the National Flood Insurance Program (NFIP) the town has new flood hazard area regulations to protect land owners. Participation in this program allows property owners to purchase flood insurance. It also makes Sutton eligible for funds from FEMA to repair and mitigate damages to roads and other town facilities in the event of flooding or other natural disaster.

In light of recent storm events, we have many reasons to believe that flood-related damage is becoming the "new normal." Sutton's floodplains perform several critical ecological functions, including reducing flash flooding, cleansing the water of sediments, and reducing the erosive energy of floodwater. In cooperation with downstream towns, the town needs to more actively manage flood risks. Sutton's floodplains must be protected from further development.

River corridors also merit special consideration, as erosion hazards are common in Vermont. The damage that occurs can often be dramatic and devastating in major storm events. It is essential to protect of the existing river corridor along the Calendar Brook from future encroachment. The Planning Commission will work with Vermont River Management staff to identify it and to protect it and other river corridors in Sutton through geomorphic assessments and through the delineation of riparian buffers.

b) Wetland protection

Wetlands serve a multitude of purposes, including recharge of aquifers, wildlife habitat; the absorption of flood waters, and so on. Pollution and/or destruction of these areas can have dire impacts on water supplies, wildlife, and can increase damage due to flooding. Wetland areas in Sutton have been mapped and the Sutton Planning Commission is confident that the State's wetland regulations will be sufficient to protect the Town's wetlands from development.

## E. Existing and Proposed Land Use Maps

These maps are posted and on file in the Town Clerk's office and are appended to this plan.

## F. Implementation

| Action | Responsible Party | Time frame |
|---|---|---|
| Consider the use of short-term tax incentives for new development in the Commercial/Industrial district. | Selectboard | 2020 |
| Evaluate river corridor data. | Planning Commission, with assistance from the Agency of Natural Resources | 2020 |
| Complete a scenic road inventory | Planning Commission | 2021 |

# IV. TRANSPORTATION PLAN

## A. Goals

- To provide the residents of Sutton with transportation facilities that are safe, efficient, and adequate to the meet their needs.
- To minimize runoff and sedimentation impacts to wetlands and surface waters.

## B. Existing Transportation Facilities

*1. Highways and Streets*

# Sutton Town Plan

Sutton is located approximately 10 miles north of Lyndonville. After traveling north on U.S. Route 5 from Lyndonville, visitors to Sutton turn off on to the Calendar Brook road and four miles later arrive in the village itself. Because of the layout of Sutton, some parts of Sutton can be reached by continuing up Route 5 or traveling on Vt. Rt. 5A, which splits with Rt. 5 in West Burke. Visitors from the north reach Sutton by traveling south on Rt. 5 from Barton.

| ***TOWN OF SUTTON HIGHWAY MILEAGE*** | |
|---|---|
| Road Class | Mileage |
| Two | 12.3 |
| Three | 34.7 |
| Four | 3.8 |
| State-maintained | 10.5 |

The town of Sutton maintains 57.5 miles of roads. Of these 10.5 miles is State-maintained and 47 miles is Town-maintained. Of the Town-maintained miles 12.3 are Class II paved and 34.7 are Class III graveled. In addition, 3.8 miles are unmaintained Class IV dirt roads. The Town currently requires that all privately owned or built roads be built at or upgraded to Class 3 standards prior to acceptance by the Town.

The Town currently requires that all privately owned or built roads be built or upgraded to Class 3 standards prior to acceptance by the Town.

*2. Public Transportation and Rail*

There are no public transport terminals in Sutton. People choosing to catch a Greyhound bus can leave from either Montpelier or White River Junction. Passenger train service is also available from Montpelier and White River Junction and freight rail service is available in St. Johnsbury. There is a small local bus line, Rural Communities Transportation (RCT), which operates between Lyndonville and St. Johnsbury, from St Johnsbury to Montpelier, and which serves other locations on a periodic basis. RCT also coordinates medicals trips for Sutton residents who are Medicaid eligible.

The former West Burke Mill site and the Route 5 corridor are adjacent to a state-owned railroad track used for freight by the Washington County Railroad. The mill site has an unmaintained rail spur. The former West Burke train station closed in the 1950s and was subsequently demolished but embarking passengers there could travel to Montreal, White River Junction and go on to other destinations. In the future passenger rail service could once again serve Sutton.

*3. Bicycle Routes and Trails*

At the present time there are no established bicycle trails in the town of Sutton although the town's roads are well suited to bicycle touring. The narrowness of some of the more traveled roads could present safety problems for both cyclists and motorists as the population increases. Planning for increased bicycle traffic might be a desirable outgrowth of the Kingdom Trails network in Burke. In fact, there seems to be an increase in bicycle traffic in recent years.

*4. Scenic Roads*

Scenic roads are everywhere in Sutton, from the main roads to any of the dirt roads. Maintaining these views should be a main priority. Future planning efforts should include an inventory of the Town's scenic roads and vistas as well as the preparation of a set of regulations to be included in the existing Unified Development Bylaws that are designed to protect these roads and vistas.

*5. Airports*

The state-owned Caledonia County Airport adjacent to Sutton's south boundary in Lyndon can accommodate commuter and private plane traffic. There are larger commercial airports in Burlington, Vermont and West Lebanon and Manchester, New Hampshire. Some residents also fly international flights from Montreal, Quebec and Boston, MA. The Northeast Kingdom International Airport in Coventry (formerly known as the Newport State Airport) has been expanded to accommodate executive jets and commuter traffic.

## C. Proposed Transportation Facilities

*1. Highways and Streets*

There is no need to increase the number of roads in Sutton. The future of the town's roads needs to be concerned mainly with improving their maintenance through increasing visibility at certain intersections (i.e. in Sutton Village and at the junction of Union House Road and Sheffield Rd.), and possibly with the improvement of sight distances on some of the more heavily traveled roads. The Planning Commission recommends the Selectboard develop a multi-year roads budget including an analysis of how best to fund major maintenance/improvement projects.

The Planning Commission recommends the Selectboard have the road crew take NVDA and state sponsored training in order to minimize sedimentation of brooks and wetland areas and to improve annual maintenance.

Making Sutton's roads safer should be an important consideration for the Town. This could be done by increasing sight distances on blind curves, making roads wider, installing hazard signs, and/or more rigorously signing and enforcing comprehensive Town traffic ordinance and the Town's Snowmobile/ATV ordinance in close coordination with the Caledonia County Sheriff and Vermont State Police.

Because of the importance of Routes 5 and 5A to the residents of Sutton, the Planning Commission requests the Selectboard stress to the Northeastern Vermont Development Association, to our political delegation, and to the State of Vermont Department of Transportation how important it is to maintain these roads in a manner that allows both safe and efficient transportation. At present these state roads are poorly maintained.

*2. Public Transportation and Rail*

White River Junction and Montpelier will continue to be the closest areas for bus and rail passenger service. The Town continues to support the services of RCT to our Sutton residents.

*3. Bicycle Routes and Trails*

Bike travel increases during the summer and fall as local enthusiasts join with popular tourist groups to travel the area. Consideration should be given to the widening of some of the roads. While separate bike paths would be an even better option, they may not be feasible at this time. If the railroad tracks that pass through Sutton are ever abandoned, the State should perhaps be encouraged to convert the right-of-way into a bike path. Such rights-of-ways make wonderful places for both children and adults to cycle. Also, as noted above, the expansion of the Kingdom Trails mountain biking network into Sutton may be worth consideration.

*4. Scenic Roads*

Nearly every road in the town of Sutton has a scenic view somewhere along its length. The town's scenic beauty should be respected and protected. As a means of protecting these scenic views the Town should consider the preparation of an inventory of these scenic views. Then, if the Town so desires, a viewshed ordinance or bylaw could be considered to protect these views. The Planning Commission discourages industrial and commercial development that would impact Sutton's scenic vistas.

*5. Airports*

The Caledonia County Airport adjacent to Sutton's south boundary in Lyndon is available to Sutton residents. The Sutton Planning Commission recognizes the importance of locally available air service to the region's economy. It is also important to the Planning Commission that that airport be maintained in harmony with the natural beauty of the area, especially the serene, quiet night skies.

## D. Existing and Proposed Transportation Maps

These maps are on file and posted in the Town Clerk's office and appended to this plan.

## E. Implementation

| Action | Responsible Party | Time frame |
|---|---|---|
| Develop a multi-year roads budget, including an analysis of how best to fund major maintenance/improvement projects and scheduled equipment replacements. | Selectboard, with the Road Commissioner | 2020 |
| Have road crew continue to take NVDA and state sponsored training in order to minimize sedimentation of brooks and wetland areas and to improve annual maintenance. | Road Crew | Ongoing |

# Sutton Town Plan

# V. UTILITY AND FACILITY PLAN

## A. Goals

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

## B. Existing Facilities

*1. Educational facilities*

Sutton School is housed in a community building dating back to the 1800's. Two additions and numerous upgrades have maintained our safe, nurturing learning environment for our kindergarten through eighth grade students. Multi-aged classrooms and an award-winning culture enhance learning and living in our small town. Student enrollment varies year-to-year with an overall student count around 100 most years.

In 2018, the Sutton School District merged with other local small schools to form the Kingdom East Supervisory District. Sutton School will continue to serves resident students as well as others who are interested in our learning environment and programs.

We were named a "School of Distinction" by the Vermont Positive Behavioral Interventions & Support Program (VPBIS)for 2 years and will be recognized as a "School of Merit." Student achievement and involvement are reflected in our school's mission to enable all our students to be successful citizens. Our staff and administration work diligently to enable each student to be the best they can be.

All graduating students have high school choice with a variety of private, independent, and public high school options in the area. There are also post-secondary school options within a day's drive.

Sutton School is governed by the 15-member Kingdom East School Board with one Superintendent of Schools and a central office staff. More information can be found regarding our school at the following addresses:

Mailing address and Phone: 95 Underpass Road, Sutton, VT 05867; 802-467-3492

Facebook: Sutton School; Sutton PTG; Kingdom East School District @kesbvt

Kingdom East Internet address: www.kingdomeast.org has links to our school's page.

*2. Recreational facilities*

This subject has been covered in the Land Use element of this Plan. In the greater St Johnsbury area which includes Sutton, there is the Fairbanks Museum, the Athenaeum and Catamount Arts, offering an opportunity for cultural and recreational enhancement.

*3. Hospitals and Medical Services*

The nearest hospital is the Northeastern Vermont Regional Hospital (NVRH) in St. Johnsbury. NVRH has a staff of 700 employees (not all full time) and is a 75-bed hospital It is designated by Medicare as a critical access hospital which means it operates 25 beds. It has full emergency department capability and for medical emergencies requiring more advanced care, the Dartmouth-Hitchcock Advance Response Team (DHART) transports patients to tertiary care centers. NVRH has a significant community outreach component to encourage healthy living and prevention of chronic diseases. Many specialty medical services are provided to the area residents by "visiting staff" from other area hospitals. Other nearby hospitals are North Country Hospital in Newport and Littleton Regional Healthcare in Littleton, NH. There are two tertiary care centers that serve Sutton, Dartmouth-Hitchcock Medical Center in Lebanon, NH and University of Vermont Center in Burlington Vermont.

There are health care clinics in Lyndon, St. Johnsbury, Concord, and Barton. Many Sutton residents use Corner Medical in Lyndonville and medical offices in St. Johnsbury for their health care. The Northeast Kingdom is considered a medically underserved area. NVRH is constantly working with medical practitioners to assure adequate coverage for the area.

Caledonia Home Health Care provides in home visiting nurses, hospice and homemaker services to area residents. Public health services are provided by the St. Johnsbury Office of the Vermont Department of Health.

The nearest pharmacies are located in Lyndonville, Barton and St. Johnsbury. Eye care is available in St. Johnsbury, and dental services are provided in Lyndonville and St. Johnsbury. Physical Therapy services are available in both Lyndonville and St Johnsbury. Many complementary health services such as chiropractic care, acupuncture, and naturopathy are available in the Lyndonville/St Johnsbury area.

*4. Libraries*

Sutton no longer has a public library, but the town donates funds to the Cobleigh Public Library in Lyndonville which provides a bookmobile that stops at the Sutton School on a regular basis. In addition, the Athenaeum is in St Johnsbury with out of town memberships available at $15.00 per year. Two other library resources are the library at Northern Vermont University, Lyndon, Vermont, and the Green Mountain Library Consortium which is matched with an app. to make downloaded audio books available.

*5. Power generating plants and transmission lines*

Electric service has been available in Sutton since the days of the Civilian Conservation Corps and has continued to grow with the town. Lyndonville Electric Dept. provides the bulk of service to the Town of Sutton with a small amount of service provided by Vermont Electric Cooperative (to one customer, the Portland Pipe Line Company) and by Barton Electric Dept. (Wheeler Mtn. Road and U.S. Rte. 5).

*6. Water supply*

Most homes in Sutton have drilled wells. Sutton Village, however, is served by The Sutton Municipal Water System which is owned by the town and governed by the Water Commissioners (the Selectboard). It is a self-supporting system; that is, it is paid for by the users of the system. The system is located on Underpass Road and serves 28 customers with the capacity to serve more. It was upgraded in 2016. The system is a drilled rock well and pumps 28 gallons per minute and has a storage capacity of 10,000 gallons. The treatment system is a softened, nitrate reduction system which is periodically tested for effectiveness as required by law. It is a backwash system and includes a leach field for the backwash which is located beyond the salt shed.

*7. Sewage disposal*

Each residence in Sutton has its own septic system. There is no public sewer system, but the town has a septic ordinance which has been considerably strengthened by the State's new waste-water regulations.

*8. Refuse disposal*

Residents make their own arrangements for trash pickup. Most use Casella or Meyers Waste Management which also picks up recyclables at no extra cost. A local entrepreneur picks up bagged waste on Saturday morning at the Town Clerk's Office parking lot. Sutton is a member of the Northeast Kingdom Waste Management District. Recyclables, hazardous waste and bulky items can be brought to the recycling center in Lyndonville.

*9. Storm drainage*

Storm drainage in Sutton is limited to culverts and ditching along the roads. An assessment of the road culvert and storm run-off and erosion management is on-going in accordance with Act 64 (Drainage and Erosion Assessment) by NVDA and is due to be completed in the summer of 2019.

*10. Similar facilities and activities*

a) Telephone

Local landline telephone service is provided by Consolidated Communications and residents have the choice of several long-distance carriers. The Enhanced 911 system is in place, enabling quick assistance in the event of fire, criminal activity, and/or sudden illness or accident. An increasing number of residents have become more dependent upon cellular phones.

b) Internet

Part of Sutton is serviced by high-speed Internet lines (available through Consolidated Communications, Charter, Kingdom Connection, or via satellite, DSL, or dish. Because the State of Vermont had committed to providing high speed internet service to all rural communities by the end of 2013, the Selectboard should ensure that Sutton is not overlooked in this initiative. The availability of such service would greatly facilitate the establishment of home-based commerce throughout the town.

c) Radio and Television

Radio reception is good in Sutton. Although television reception by antenna is limited, there are several local providers for cable and satellite packages.

d) Wireless Telecommunication

At the time of this writing, Sutton does not have any wireless telecommunication facilities. Service comes from the summit of Burke Mountain.

Technological developments in the telecommunications industry have resulted in demands for development of properties that would allow the erection and construction of cell towers and other facilities. It may be only a matter of time until such facilities are proposed in Sutton. There is, therefore, a need to establish a plan to regulate their orderly development. Location, height, design, appearance and impact on the surrounding environment are some of the critical areas that will need to be addressed.

Construction of these facilities has not been without controversy. The residents of Sutton will want to preserve the character and appearance of their town when considering the development of adequate wireless telecommunication facilities.

e) Wind Turbines

(See Sutton Energy Plan.)

*11. Fire Department*

Sutton has 15 active volunteer fire fighters—they are a skilled, highly motivated crew and train regularly.

The fire department has three trucks. The first truck is a truck from the 1990s, a green Pierce pumper/tanker with a 1500-gallon water capacity. As a pumper, it can pump 100 gallons per minute. The second truck is a 1997E-1 pumper/tanker, carrying 2500 gallons of water and able to pump 1500 gallons per minute. The third truck is a 1980 E-1 Federal pumper/tanker carrying 1000 gallons of water and is able to pump 1500 gallons per minute. Each truck can go to a separate fire if necessary.

The new Sutton Fire Station is located at 611 Burke Road. It has solar power collectors and a backup generator. The Sutton Fire Department has mutual aid agreements with surrounding departments and with Lyndon Rescue.

*12. Emergency Services*

Sutton maintains and annually updates a local emergency operations plan, which is available at the Sutton Town Office. There are three emergency shelters for the town: at the Sutton Fire Station, 611Burke Road (capacity 30): at the Sutton Baptist Church, 36 Church Street (capacity 100); and at the Sutton School, 95 Underpass Road (capacity 200) where a large emergency generator has been installed to ensure continuation of power in the event of severe weather and loss of service from Lyndonville Electric Department. The multi-purpose room at the school has a large kitchen facility and bathrooms. The Sutton Baptist Church is only an overnight warming shelter but has a kitchen. The Sutton Fire Station and Town Office, however, also have emergency generators to ensure continued availability of communication/coordination functions during power outages.

The town has implemented the Enhanced 911 Program. All homes are supposed to have been numbered. New house numbers are assigned by the Sutton 911 Coordinator who is also the Sutton Zoning Administrator. All roads have been named and signs indicating their names have been erected. Many signs have been vandalized and the break-away road signs are gradually being replaced with larger, sturdier, more visible ones. Emergency 911 calls in the Town of Sutton are responded to by Lyndon Rescue, Inc., an ambulance service which is located at Northern Vermont University. This service may be moving to the Fire Station in Lyndonville. Lyndon Rescue's board consists of one person from each of the towns it serves. In addition to providing emergency ambulance service, Lyndon Rescue can also transport patients from one medical facility to another.

The Sutton Fire Department has mutual aid agreements with the fire departments in surrounding towns and with Lyndon Rescue.

With the adoption of the new Unified Development Bylaws, Sutton has completed the process of applying to participate in the National Flood Insurance Plan. Flood insurance is now available to Sutton residents and FEMA pre-disaster mitigation funding is available to the town.

*13. Law Enforcement*

This service in Sutton is provided by three sources: The Town has a first and second constable (untrained and with no enforcement authority) and, also has a contract with the Caledonia County Sheriff's Department to patrol town roads and to ensure speed limits (especially during school opening and closing times) and safe operations (i.e. stopping at stop signs) are enforced. The third provider of law enforcement services is the Vermont State Police. A major issue of enforcement in the Town is the Town's Snowmobile and All Terrain Vehicles Ordinance which restricts ATVs to accessing a loop trail adjacent to the Towns of Wheelock and Sheffield. There are frequent complaints from throughout the town about ATVs being operated unsafely and disturbing residents by creating loud noise and dust problems. Sheriff's deputies have suggested a community policing (Neighborhood Watch) program be initiated to better coordinate and increase effectiveness of enforcement.

## C. Proposed Facilities

*1. Educational facilities*

In accordance with Act 46, Sutton has recently entered a new school district agreement that incorporates Caledonia North Supervisory Union (Burke Town School, Newark Town School, Lyndon Town School, Sutton Town School, Union District #37, Sheffield and Wheelock) and the towns of Concord and Lunenberg/Gilman, forming the Kingdom East School District. The Sutton School is leased to the supervisory union and building and educational needs for the children of Sutton will be coordinated within the new larger supervisory union.

*2. Recreational facilities*

This subject has been covered in the Land Use element of this Plan.

*3. Hospitals*

Having health care facilities in the area that are of high quality, accessible, and sufficient to meet the needs of the town's population is critically important. The town and its residents should do whatever is necessary to insure the health facilities in the area are adequate to serve peoples' needs. This can be done in a number of ways. Individuals may write letters to the facilities, legislators, and / or the Joint Commission on Accreditation of Healthcare Organizations (the organization that accredits hospitals). Completing and returning facility and service evaluations may also be helpful. Healthcare is expensive; therefore, towns may be able to improve the quality and affordability of health care by providing financial support to local healthcare organizations. Providing appropriations, even small ones, may also give the town more of a say in terms of how health care services are provided.

*4. Libraries*

As the residents of Sutton are now dependent upon the Cobleigh Public Library and the Athenaeum for library services it is important for both the library and the residents of Sutton for

the Town of Sutton to have open lines of communication with the library. As the Town of Sutton makes an annual appropriation to the library, it is necessary and important that the town have a say in how that money is used by the library. Therefore, questions like "Is the Cobleigh Public Library providing the Town of Sutton with the services and books that we need and want?" and "What does the town need from the library?" need to be asked and the answers must then be communicated to the library. Only in this manner can the library improve its services when that becomes necessary.

*5. Power generating plants and transmission lines*

As electric power is necessary for modern day living, it is important that the electric customers in Sutton communicate to the providers the problems they experience. Such communications will enable the providers to correct problems and perhaps even upgrade the services they provide. Likewise, the Selectboard should also communicate our need for upgrading and extending the three-phase electric service along the Route 5 corridor. It should also be noted an increasing number of residents are choosing to be off-grid.

*6. Water supply*

With completion of recent treatment/storage upgrades and subsequent passage of all water quality tests the Sutton Water System has no deficiencies. An operator's manual for the new system has been completed and is available for guidance.

*7. Sewage disposal*

Sutton is a small town with a very dispersed settlement pattern as well as limited resources. Therefore, it is unlikely that the Town of Sutton will develop a public sewage system within the foreseeable future. In addition, it is even more unlikely that such system, if installed, will serve the entire town. With this in mind, it becomes even more critical to monitor development especially in light of the fact that Sutton's land is wet and has mostly clay soils. Therefore, great care must be taken to protect both the town's ground and surface water from contamination from failed or improperly installed septic systems. State regulations establish stringent standards for wastewater management.

*8. Refuse disposal*

The Town of Sutton would like to encourage the trash haulers that serve Sutton to continue to provide their services to the town as efficiently and inexpensively as possible. New state regulations concerning recycling make our membership in the Northeast Kingdom Waste Management District more critical than ever.

*9. Storm drainage*

Maintaining the culverts and ditching along the roads is critical for preventing erosion and pollution of streams with silt. The ditches need to be lined with erosion resistant materials and

the culverts need to be properly sized when installed and kept clean. Making sure regular maintenance is done will reduce damage to private property and liability on the part of the Town. As noted elsewhere, the town is in process of completing the Act 64 Drainage and Erosion Control Assessment.

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*10. Similar facilities and activities*

a) Internet

The provision of high-speed internet service is critical for small business development. The Selectboard should take the necessary steps to encourage the State of Vermont to redeem its commitment to provide such service for the entire town by the end of 2013.

*11. Fire Department*

The greatest challenges for the fire department now that they have a new and larger facility with appropriate venting so they can work on the trucks inside, and more storage area for equipment, is the need for volunteers and time for adequate training to remain current in firefighting practices. The department would also like fire hydrants around the village to make water more accessible.

## D. Existing and Proposed Utilities and Facilities Maps

These maps are on file in the Town Clerk's office and appended to this plan.

## E. Implementation

| Action | Responsible Party | Time frame |
|---|---|---|
| Assess how residents can better interact with/advise Kingdom East Supervisory District so local needs are made known. | Sutton Parent Teacher Organization & Sutton representatives on District Board | 2019 |
| Complete Act 64 "Drainage and Erosion Assessment" and resulting capital budget. | Road Foreman & NVDA | 2019 |
| Regularly contact elected representatives & NVDA to lobby for affordable high-speed Internet service. | Planning Commission & NVDA | ongoing |
| Test functions of Emergency Operations Plan to ensure they will work when called upon. | Selectboard, Fire Dept., Local Emergency Planning Committee 9 (Caledonia & Essex Counties) | 2019 |
| Investigate initiation of Neighborhood Watch Program with Sheriff's Dept. | Selectboard, Sheriff's Department | 2019 |

| | | |
|---|---|---|
| Encourage residents to complete health care satisfaction surveys. | Sutton residents | ongoing |
| Assess effectiveness of annually providing small appropriations to local health care providers who directly benefit residents. | Sutton residents | ongoing |
| Communicate service needs to Cobleigh Library & Fairbanks Museum. | Sutton School Staff | ongoing |
| Continue requesting three-phase electric service from Lyndonville Electric Dept. along the U. S. Rte. 5 corridor. | Selectboard | ongoing |
| Continue close coordination concerning recycling program with Northeast Kingdom Waste Management District. | Sutton School Staff | ongoing |
| Investigate installation of additional fire hydrants in Sutton Village. | Selectboard & Fire Dept. | 2019 |

# VI. PRESERVATION PLAN

## A. Natural Areas, Features, and Resources

Sutton has a history of respect towards and appreciation of its natural landscape. Residents cherish the rural nature of the town. Zoning bylaws limit intensive development in woodland areas. In addition, the State of Vermont administers 5,577.62 acres (21.2%) (5,068.3 acres Willoughby State Forest, 95.5 acres Mathewson State Forest, 0.35 acres Bean Pond Access, 0.47 acres Vail Pond Access, 413 acres Calendar Brook Wildlife Management Area) of Sutton land and there are 6,041 acres (24.5%) of conserved land in the Use Value Appraisal (Current Use) Program. These lands all have a management plan. The Town should play a more active role in the development and maintenance of these plans.

The Calendar Brook Wildlife Management Area (WMA) covers 413acres and is located between Union House Road, King George Farm Road and the West Ridge. Its forest is made up of 71% white spruce and balsam fir and 29% white cedar. Much of the cedar area is swamp. There are also small amounts of aspen, red maple and yellow birch mixed throughout. This area provides habitats for a variety of wildlife species including wintering yards for the deer.

Portions of both Willoughby State Forest and Mathewson State Forest are located in Sutton (5,068.3 acres and 95.5 acres respectively). The 30-acre Marl Pond and Swamp Natural Area are located in the Sutton portion of Willoughby State Forest. Marl Pond is a small, calcium-rich pond bordered by a mature northern white cedar swamp with several rare plants. The pond bottom was mined historically for marl (calcium and magnesium carbonate deposits), which was used locally for fertilizer.

## B. Scenic Features and Resources

The Town of Sutton has a number of scenic roads that are lined with old maples and other trees. In the past few years many of these trees have died and have had to be removed. In an effort to maintain these scenic corridors, however, the Town needs to continue planting new trees to replace old ones that have died. This activity will be coordinated with landowners, utility managers, and with the Sutton road crew to avoid locations where plantings will present problems.

Most of Sutton's topography ranges from gently rolling to almost mountainous. The latter part of the previous statement is true especially in the northern half of the Town with Bartlett Mountain, Mr. Hor, Norris Mountain and Wheeler Mountain all being over 2,000 feet above sea level. The nature of the Town's topography provides for many scenic vistas that should be preserved.

Scenic protection areas shall include all lands above 2,000 feet elevation – specifically Norris Mountain and adjacent summits and high elevation ridgelines and summits in the Willoughby State Forest. While the Town of Sutton will welcome small, suitably sited domestic wind turbines, the Town shall, nevertheless, preserve its undeveloped high land and its time-honored natural horizons as a birthright for our children. Therefore, this plan recommends that any development above 2,000 feet in elevation not exceed 50 feet in height and strongly discourages the erection of wind turbines on lands above 2,000 feet.

## C. Historic Features and Resources

For information regarding the Town's historic features, please refer to section II, History of Sutton, of this plan.

## D. Implementation

The Town of Sutton has a number of natural, scenic, and historic features that make a major contribution to the Town's personality and beauty. These features need to be protected and preserved. Zoning is one way to do this by requiring appropriate lot sizes and by the segregation of incompatible land uses. Zoning can also protect flood plains and wetlands by setting forth appropriate regulations for the development of these areas. Forested areas can be protected by avoiding clear cutting and practicing sustainable logging practices that rigorously follow the State's Acceptable Management Practices for Logging.

Zoning can also be useful with regard to the protection of the Town's scenic vistas. Zoning regulations should be written that would either require the placement of structures in a manner that would not obstruct the Town's scenic vistas or to require screening around structures that might be visible from a scenic vista. Zoning should also protect the ability to view the Town's historic structures in a similar manner.

Maintaining the Town's historic structures for tourists and future generations is important so that they may better understand the history of Sutton. Therefore, this Plan also encourages the maintenance of the Town's historic structures such as the Church, School, and the Grange Hall / Fire Department. Regular maintenance will prevent these structures and other historic structures from falling into disrepair.

| Action | Responsible Party | Time Frame |
|---|---|---|
| Sutton should play a more active role in the development and maintenance of state-managed lands | Planning Commission | ongoing |
| Encourage enrollment in Current Use Program and other programs to maintain an economically viable working landscape. | Planning Commission | ongoing |
| In an effort to maintain scenic corridors the Town needs to continue planting new trees to replace old ones that have died. | Conservation Commission | ongoing |
| Encourage vigorous enforcement of Sutton's ordinance regulating solid waste and junk. | Zoning Administrator & Selectboard | -ongoing |
| Preserve Sutton's undeveloped high land and its time-honored natural horizons and peaceful night skies as a birthright for our children. | Planning Commission | ongoing |
| Discourage the erection of wind turbines on lands above 2,000 feet. | Planning Commission | ongoing |
| Maintain and enforce Sutton's Unified Development Bylaws. | Zoning Administrator, Development Review Board | ongoing |
| Maintain Sutton's historic structures in good repair. | Selectboard, School Board, Church Congregation | ongoing |

# VII. EDUCATIONAL FACILITIES PLAN

NOTE: The voters of the Sutton Town School District chose to join the newly formed Kingdom East Supervisory School District in 2017. The new District became operational in July, 2018.

## A. Goals

- Create and implement an instructional model that is educationally sound, fiscally responsible, capacity-building, and sustainable over time.
- Continue facility improvements and building maintenance according to the Kingdom East School District's facilities plan.

- Continue to upgrade the school's technology and infrastructure to improve communications in-house and with the larger community, reduce the use of paper, maintain the school's web page (kingdomeast.org/sutton-school/home), and utilize the school's technology to reach parents and the larger community. Provide education links for posting in the town's web page.

- Continuously review and adjust the Sutton School Action Plan to reflect the changing needs of students and the community and to provide for the development of a Principal's Advisory Group. The action plan should include goals for parent and community involvement in the development and evaluation of that action plan.

- Provide for a healthy and pleasant school climate by complying with Act 113 for a civil, safe, and drug free school that aligns with Sutton School's and the district's behavior philosophy. Continue professional development in the "Positive Behavioral Supports in Schools" program which began in 2009. Review/revise school rules and procedures as needed; revise the handbook annually. Review and adjust crisis prevention and child protection plans.

- Provide appropriate staffing and structure for the effective operation of the educational support team.

- Follow the Kingdom East District's direction and leadership in curriculum matters and adjust instruction accordingly to insure a quality education for the children of Sutton.

- Revisit/rewrite Sutton School's vision and mission statement as necessary.

- Cooperate with the Kingdom East District in the compliance with Act 153 provisions for the consolidation of special education services at the district level.

- Develop an effective middle school program.

- Update policies under Kingdom East District's direction to be current with new state and federal requirements.

- Encourage all staff members to participate in regular professional development activities.

## B. Present Uses of the Local Public-School System

*1. Elementary Education*

Sutton children ages 5 through 14 attend the Sutton School, which has a multi-age classroom configuration for grades K through 8. A pre-school program is available at the district level and a full day kindergarten program is provided at the Sutton School. Graduating Sutton children of high school age have high school choice.

The Sutton School is located on the Underpass Road in the Village center. The original brick structure was built in 1833. It is framed to the north by the Town Clerk's Office and to the south by the Grange Hall.

Four temporary mobile classrooms were moved onto the site and incorporated into the existing school structure in 1996 along with an addition that included a new kitchen and multipurpose room. The 1996 construction project also included additional space for two offices, but did not include any additional teaching spaces (other than mobile classrooms). Sutton School has high speed internet access with the capacity and infrastructure to provide internet access to all students. The Kingdom East District resumed bussing services for Sutton students in 2018. (At the 1997 Annual Sutton School District Meeting, the voters of Sutton voted to eliminate bussing as a cost saving measure.)

We experienced the local and state downward trend in enrollment in the past and in response to this trend, Sutton School recently implemented the Multi-Age Instructional Model across all grade levels and has improved our capacity to deliver specialized services to students in need. This new structure provides better control over class size and learning configurations. Ultimately, this new delivery model will allow the school to accommodate 110 students, employing six classroom teachers, two special educators, and four para-educators. Additional support services such as the "Titles Program", clinical and guidance counseling, nursing and administration are funded through local dollars and both federal and State grant monies. Enrollment numbers for the elementary school have recently fluctuated between 90 and 110, with an average of 53.

Detailed information regarding elementary educational programs, staffing and enrollment data, testing results, the before- and after-school programs, and other topics are included in the annual school report, which is available which is available at the Kingdom East District web site (kingdomeast.org), Town Clerk's Office, and Sutton school

The school facility is also used for a variety of community functions such as the before- and after-school programs, town meetings, church and group dinners, clubs (i.e. Boy Scouts, Girl Scouts, Pilgrim Manor), and others.

The school facility plan provides for ongoing maintenance during the summer months. Windows, doors and floors are replaced as needed to maintain the thermal efficiency and safety of the facility. During the last three years several projects have been completed, including replacing the roof. An air quality evaluation and the implementation of the report's recommendations were completed in 2008. Regularly scheduled water quality tests show that the school's water is potable. The lower level and the north end of the building were remodeled in the 2008/09 school year. The Kingdom East District Administration maintains a "Facility Maintenance Plan" which addresses larger projects such as roofing, paving, heating, and kitchen equipment.

*2. Secondary Education*

All of Sutton's high school students are allowed by school policy to apply to attend one of the area high schools, which include Lyndon Institute, Burke Mountain Academy, St. Johnsbury Academy, Lake Region Union High School, the East Burke School, and the Lyndon Educational Alternative Resource Network (LEARN). With the exception of Lake Region Union High School, all of the alternative secondary schools available to Sutton's high school students are private schools.

## C. Proposed Uses of the Local Public-School Building

As of June, 2018, the Sutton School Board and administration successfully solved most of the use of space issues identified in earlier town plans. While the land the school is on is leased from the town to the district the school and buildings remain Town of Sutton property. It was agreed the Kingdom East District is responsible for the maintenance and improvements of the buildings and grounds. The Kingdom East District will develop the facilities use and maintenance plans to address future concerns and uses.

## D. School System Map

Map information is included on the Base Map, which is on file in the Town Clerk's office and appended to this plan.

## E. Implementation

The School Administrator and Kingdom East Board adjust the use of the School's facilities according to instructional needs.

The "Sutton School Action Plan", available at the school, details the implementation plans for specific aspects of the five-year plan, which is updated regularly.

Detailed information regarding elementary educational programs, staffing and enrollment data, testing results, before- and after-school programs, and other topics are included in the annual school report which is available at the Kingdom East District Office, the Town Clerk's Office and the school.

# VII. ADJACENT TOWNS

Sutton abuts a total of seven towns: Barton, Burke, Lyndon, Newark, Sheffield, Westmore, and Wheelock. Newport City and St. Johnsbury have also been included as "adjacent towns" even though they do not abut Sutton. The reason for this is that Sutton may serve as a bedroom community for Newport City and St. Johnsbury. Therefore, development trends in these two towns could impact the Town of Sutton. As part of its regional planning function, the Northeastern Vermont Development Association (NVDA) ensures coordination of planning among all towns in the Northeast Kingdom.

# Sutton Town Plan

All of the towns abutting Sutton, as well as Newport City and St. Johnsbury, have adopted plans.

The adjacent population chart shows how Sutton, the surrounding towns, and the region have grown between the years 1990 and 2010. Wheelock, Newark, Sheffield, and Burke have experienced significant rates of growth followed by Sutton, which experienced a 20% increase in population over the past two decades. Barton lost population. Of the three regional centers, St. Johnsbury, Lyndon, and Newport, only Lyndon experienced any significant growth.

## A. Barton

Development pressures in Barton are focused around Crystal Lake. The south end of Crystal Lake is about 2.5 miles from the Barton/Sutton town line as well as downstream from the Town of Sutton. Therefore, it seems likely that development around Crystal Lake will have little or no impact on water resources in the Town of Sutton.

The boundary between Barton and Sutton is approximately 4.7 miles long. Much of this area is very hilly with slopes as steep as 20%. There are also several wetlands and small ponds right along Route 5 at that point where Route 5 leaves Sutton and enters Barton. There may be some parcels of land in this area suitable for development, either along Route 5. Development on the Wheeler Mountain Road, however could exceed the road's capacity.

The Barton Town Plan has categorized that part of Barton that abuts Sutton as remote land. Land uses permitted in this area by the Barton Zoning Bylaw are limited and the minimum lot size for development in this area is 10 acres. These requirements of the Barton Zoning Bylaw should help to mitigate any impacts of development in this area.

## B. Burke

Unlike the area along the boundary between Sutton and Barton, the topography of the area along the boundary between Sutton and Burke is relatively flat. This area is also accessible by a number of different roads that cross this boundary, including Routes 5 and 5A. In addition, the Village of West Burke is very close to this boundary and development related to this village may already spread into Sutton. Due to the flat topography and accessibility of this area, the potential for development in this area substantial and could affect Sutton.

Following the adoption of its town plan in 2006, the Town of Burke amended its zoning bylaws to create multiple zoning districts. The core of the West Burke Village, along Routes 5 and 5A, is zoned for high density mixed-use, with minimum lot sizes as small as a quarter-acre. (In

| ***POPULATION GROWTH 1990-2010*** | |
|---|---|
| Area | % Change |
| Barton | -5 |
| Burke | +25 |
| Lyndon | +11 |
| Newark | +64 |
| Newport City | +3 |
| Sheffield | +30 |
| St. Johnsbury | 0 |
| Sutton | +20 |
| Westmore | 15 |
| Wheelock | +69 |
| Caledonia County | +12 |
| Orleans County | +13 |
| Northeast Kingdom | +11 |

reality, the potential for dense development is currently limited by lack of off-site water and sewer.) The purpose of this district is to continue "the established pattern of mixed residential, institutional, and commercial uses" in the village. In order to prevent development from sprawling into outlying rural areas, the village is surrounded by "agricultural residential" districts, which provide opportunities for low-density housing and limited non-residential development. The northwest corner of Burke, north of Newark Street has a five-acre minimum lot size. While primarily intended for single-unit residential development, this area does allow for some traditional rural industrial uses, such as earth extraction and heavy equipment yards. There are, however, some fairly significant development constraints, including steep slopes, wetlands, and deeryards. In addition, much of this area is located in a "scenic conservation overlay," which subjects nearly all proposed development to conditional use review, limits clear-cutting, and requires careful placement of building envelopes in order to protect areas with scenic value.

In 2010, the Town of Burke adopted performance standards for industrial uses. The more intensive industrial operations -- such as unenclosed activities and uses that generate significant truck traffic – would most likely have to be located on Route 5 in order to meet these standards.

The Town of Burke has seen significant growth over the past 20 years, and can expect to experience more growth, due to the ongoing Burke Mountain Ski Resort development and explosive growth of mountain biking in the town and surrounding region. In fact, a recent study of subdivision trends shows that in a single year (2003-2004), seven percent of the acreage in previously undeveloped large-parcel areas (50 acres or more) were lost to development. What's more, Current Use enrollment in Burke is fairly low – about half of statewide averages. [1] Additional development in support of outdoor recreation will likely increase residential development pressures and housing prices in all the surrounding towns.

## C. Lyndon

Like the area along the Sutton/Burke boundary, the area along the Sutton/Lyndon boundary is also relatively flat. Most of this area, however, is not quite as accessible as the area along the Sutton/Burke town line. There are only two roads that allow access from Sutton into Lyndon and vice versa and only one of these roads actually comes into the Village of Lyndonville. This road is the Pudding Hill Rd which also provides access to the Old Coach Road via the Airport Road.

Most of the area described above is currently held in large lots that have been developed with expensive homes. Any recent subdivision activity in this area has also resulted in large lots. As long as the current development patterns in this area prevail, it is unlikely that development in this area will directly affect the Town of Sutton. However, if any of these large lots are

[1] "Informing Land Use Planning and Forestland Conservation through Subdivisions and Parcelization Trend Information," Vermont Natural Resources Council and Vermont Family Forests, 2011.

subdivided this could impact the Town of Sutton, especially if such development should cross the town line.

Lyndon's hot spot for residential development at this time is along Route 5 in the Little Egypt and Hemond-Doyon Subdivisions. While this area is not directly adjacent to Sutton it could still impact Sutton if any of this development should cross the town line. It is more likely, however, that this development could have a greater impact on Burke due to this area's proximity to that town. In fact, Burke may act as a buffer between these developments and the Town of Sutton.

Perhaps the greatest impact that Lyndon could have on Sutton will result from the fact that Sutton is a bedroom town to the surrounding towns, including Lyndon. Between 1990 and 2010 Lyndon's population increased by 11 percent, but Sutton's population increased by 20 percent. Lyndonville is a critical through-point to Sutton. Its increasingly vibrant downtown, with a mix of restaurants, shops, and professional services, will likely draw newcomers to Sutton, who wish to live within a convenient distance to downtown amenities.

Lyndon adopted a new Town Plan in 2015.The area that abuts Sutton is currently zoned as Rural Residential. The Town Plan recognizes Lyndon's role as a regional center to outlying towns such as Sutton. Further it recognizes the importance of the Calendar Brook Road, and the access that it provides for shopping, work, and other activities. The Town Plan encourages development that will not hinder the functionality of this road.

## D. Newark

Development pressures in Newark are focused in two areas. The first is along Newark St. (Newark's main street) where the Town's center and services are located. The second is on the west side of Newark Pond. While it seems that development along Newark Street will have little or no impact on Sutton, it would seem that extensive development around Newark Pond could. The water that drains out of Newark Pond flows into the West Branch of the Passumpsic River near the Sutton/Newark town line. This area is also a wetland. Careful monitoring of the development around Newark Pond by the Town of Newark will help to reduce any impacts on Sutton as well as points south along the Passumpsic River.

Newark's Town Plan has been revised and was recently adopted under the exigency of stopping an industrial wind project. Newark has no zoning, subdivision, or flood hazard regulations. In 2008, the planning commission conducted a feasibility study of various growth management strategies, primarily in response to recent growth and development pressures from Burke. Although the planning commission did explore zoning and subdivision regulations, they ultimately decided that there was not enough support for local land use regulations at this time.

## E. Sheffield

Much of that part of Sheffield that lies along the Sutton/Sheffield town line is both mountainous and inaccessible. With only three minor roads crossing into Sutton, and the nature of the

topography, this area has not been experiencing much in the way of development. Development pressures in Sheffield are much more likely to be felt in the valley along or near Route 122, the only major highway, other than I-91, in the Town of Sheffield. In 2005 Sheffield approved plans for the siting of 16 industrial-scale wind towers on Granby Mountain, Libby Hill, and northeast along an unnamed summit to the south-southwest of Norris Mountain. While largely unseen from populated areas in Sheffield, this development is having a significant adverse visual impact on the Towns of Sutton and Barton and specifically to properties within sight of the project. In addition, the lights, noise, and visual impacts from the project disturbs the peace and tranquility of the neighborhood from the West Ridge to the Sutton/Sheffield town line. Sheffield adopted a new town plan in 2017; however, the town has no local land use regulations.

## F. Westmore

The town line between Sutton and Westmore is dominated by a ridge of mountains including Wheeler, Hor, and Bartlett. To the east of Mt. Hor, the land drops steeply down to the western shore of Lake Willoughby. As such the land between the Lake and the town line has severe limitations for development. Much of this land is also in the Willoughby State Forest. The land area in and near the triangle formed by Wheeler, Valley, and May Pond mountains appears to be more developable but some of this area has topographical constraints. Development, however, is more likely to occur between the northeastern foot of Valley Mtn. and the north end of Lake Willoughby as this area is relatively flat. This area has been identified by the Town of Westmore as a possible hotspot for development. The other area of Westmore under development pressure is along the Hinton Hill Road to the east of Lake Willoughby.

Due to the topography and the existence of the Willoughby State Forest, development in Westmore will like have only a minimal impact on Sutton. In addition, Westmore's town plan provides that development should minimize environmental and aesthetic impacts.

## G. Wheelock

The town line between Sutton and Wheelock is only about a mile in length and most of it abuts or passes though the Mathewson State Forest. Access to this area is also limited as there is only one road that crosses the town line. In addition, the hotspot for development in Wheelock appears to be in South Wheelock which is two to three miles from the Sutton/Wheelock town line. Therefore, it seems unlikely that development in Wheelock will directly impact Sutton. To the benefit of both Sutton and Wheelock, the Wheelock Town Plan does recognize the importance and encourages the protection of the Town's natural environment. However, Wheelock has no local land use regulations.

## H. Regional Context

The table at the beginning of this section shows the percentage change in population for Sutton, the surrounding towns, Caledonia County, Orleans County and the Northeast Kingdom between the 1990 and 2010 Censuses. These numbers reflect the fact that Sutton's rate of growth during

the 1990s and 2000s exceeded the rates of growth for all but four of the other geographic areas listed. Therefore, it seems that Sutton could have a greater impact on most of the surrounding towns than vice versa. It should be noted that of the four towns that exceeded Sutton's rate of growth, only Burke has zoning and subdivision regulation. Fortunately, none of these three towns without zoning (Newark, Sheffield, and Wheelock) have had growth pressures in the vicinity of the town lines and two out of these four towns have topography or land ownership issues that will minimize impacts on Sutton and vice versa.

Finally, the land/use land cover data in Regional Plan indicates that the Town of Sutton is largely Forested and Open/Agricultural. The regional goals for these lands – which may be highly relevant to Sutton – are as follows:

- "Sustainable forestry should remain an economically viable tool to preserve woodlands, open space for recreation, and local character.
- Mixed-use forests should allow for expanded economic benefits to forest owners while encouraging sound ecological practices and recreational access to the public.
- Value-added processing opportunities for wood resources in the region should increase.
- Farming and agriculture should remain an important and viable sector of the regional economy.
- Contiguous tracts of prime agricultural soils should be preserved."

# IX. ENERGY PLAN

## A. Goals

- ❖ To encourage the efficient use of energy and the acquisition and development of residential-scale renewable energy resources at least cost.
- ❖ Achieve community awareness about the available resources and ongoing activities in energy efficiency and to encourage further participation.
- ❖ Promote energy conservation and weatherization activities at the household and municipal level.
- ❖ To encourage development patterns that result in efficient use of land and related energy costs.
- ❖ Develop municipal renewable energy siting standards that limit adverse impacts.
- ❖ Conform to State of Vermont "substantial deference" criteria detailed in Act 174.

# Sutton Town Plan

## B. Objectives of Sutton Energy Committee Charter

- Seek means to reduce energy use and increase energy efficiency savings.
- Support awareness, appropriate siting, and use of renewable energy within the Town of Sutton.
- Establish metrics and develop baseline data points followed by measurable objectives in regard to energy use within the town.
- Meet objectives contained within the Sutton Energy Plan.
- Contribute to the goals contained within the Sutton Town Plan.
- Research grant and funding opportunities to fund these projects. Projects will be evaluated on the basis of cost and long-term financial benefit to the town.
- Engage the community in fulfilling the tasks set forth by the Energy Committee, including an educational and outreach component in conjunction with the Sutton School.
- Network with other town energy committees, NVDA, Vermont League of Cities and Towns, and others to leverage communication of ideas and programs for the benefit of Sutton residents.

## C. Sutton's Energy Strategy for 2050

This amendment to the 2019 Sutton Plan outlines our strategies for supporting the ambitious goals and policies of the Vermont Comprehensive Energy Plan of 2016, namely to meet 90% of Vermont's energy use through the use of renewables by the year 2050.

Specifically, we aspire to meet the "enhanced energy planning standards" of Act 174[2], which include:

- **Current and Future Energy Use**- An analysis of the needs, scarcities, problems, and costs across all energy sectors – thermal, transportation, and electrical;
- **Conservation and Energy Efficiency:** Achieving the "90 x 2050" goal is only possible through aggressive weatherization and efficiency measures; and that is where the Town of Sutton sees the greatest opportunity to improve the quality of life of its residents. By 2025 we want to improve the energy efficiency of 25% of homes in Sutton. By 2028 we

[2] Act 174 (2016) establishes a new set of municipal and regional energy planning standards, which if met allow those plans to carry greater weight in the siting process for energy generation. https://publicservice.vermont.gov/content/act-174-recommendations-and-determination-standards

will have reduced our GHG emissions to 50% below 1990 levels. According to the 2019 Sutton Community Survey, 25% of respondents' homes were built before 1950 and another 25% before 1980, leaving about 50% of our homes built prior to significant changes in insulation and heating efficiency. Seventeen percent of respondents indicated that they have had an energy audit in the past five years. Forty-seven percent would like an energy audit. According to the 2019 Sutton Community Survey, nearly 75% of homes use wood as either the primary or secondary source of heat. Of those homes, only 25% have a wood stove with a catalytic converter. Most of Sutton residents are supplied with electricity by Lyndonville Electric Department. Thanks to efficiency measures, customers have reduced their average use in recent years. According to the 2019 Sutton Community Survey efficiency measures that have been carried out include light bulb replacement to LED, upgrading of lighting fixtures and replacement with Energy Star appliances, installation of more efficient heating equipment, installation of low-flow shower heads, purchase of a new or used vehicles with better gas mileage, improvements in insulation and replacement of old windows. Energy audits of Sutton's public buildings were completed in 2011. The audit of the Fire Station has been addressed by the construction of a new fire station which complies with current energy standards and has had an energy audit completed on it. The Town Clerk's Office/Garage audit still needs addressing. The town should follow up on these recommendations to make sure they are energy efficient and as safe as possible. An audit of the school building should also be done.

- **Land Use** Sutton's Unified Development Bylaws encourage development that is more energy efficient by minimizing fragmentation of open space as is feasible for a rural community. Additionally, our development policies discourage the creation of new roads and provide incentives for innovation in site design to minimize rural residential sprawl and site new structures to make optimal use of renewable energy sources.

- **Local Energy Generation**: Use of domestic-scale renewable energy resources such as solar, wind, hydro and wood ought to be encouraged. Vermont has a number of programs that encourage and defray the cost of renewable energy installations. The Energize Vermont Website has links to a number of resources pertaining to solar sources. It also features the community energy initiative and the Power Up Vermont Program. www.energizevermont.org. Energy from commercial energy facilities located in the Town of Sutton must benefit town residents and businesses.

There are clear advantages for developing a plan that meets the standards of Act 174. Towns receive increased consideration in Section 248 proceedings, the Public Utility Commission's process for reviewing grid-connected energy generation. Prior to Act 174, municipal plans were given "due consideration," in Section 248 proceedings – a status that was never actually defined in statute. By contrast, Act 174 establishes a new set of municipal and regional energy planning standards. If these standards are met, regional and municipal plans may carry greater weight – "substantial deference" – in the Section 248 process. Unlike "due consideration," "substantial deference" is defined in statute:

"…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 of policy."

Equally important, however, an "enhanced" energy plan establishes a blueprint for local action in order to minimize the impact of climate change.

## D. Sutton's Current and Future Energy Use

*1) Overview*

Sutton has a small village center surrounded by extensive rural settlement and open space (24 people/sq. mile). According to the Sutton Community Survey, 88% of the housing stock consists of detached single-family homes, and another 6% of mobile homes. The majority of Sutton residents travel out of town for work, shopping, and other necessities. The average daily commute for work is an average of 38 miles round trip. This pattern of development requires considerable energy use to meet transportation and heating needs.

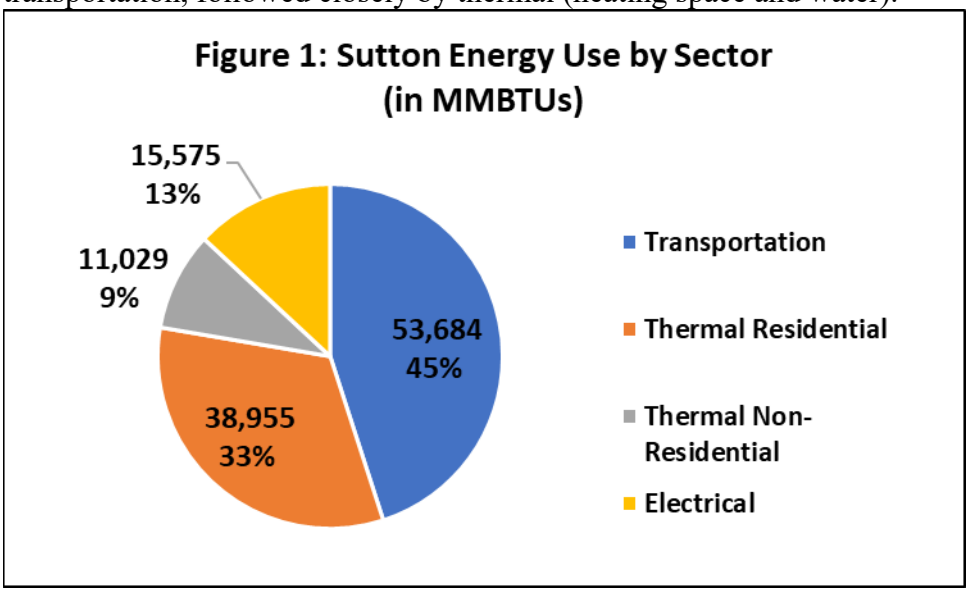
Sutton's energy use estimates were developed by Northeastern Vermont Development Association and follow the same data methodologies used for the 2018 amendment to the Regional Plan for the Northeast Kingdom. (www.nvda.net)[3]. Energy use data were based on the best available data and **should be considered broad approximations to be used for general planning purposes rather than precise measurements**. Fuels are measured in different ways – by cord, by gallon, by kilowatt – so this plan converts units of measurement into British Thermal Units (BTUs) in order to compare their energy output consistently.[4]

According to NVDA estimates, the town of Sutton uses more than 119,000 MMBTUs (11.9 billion BTUs) annually to meet its energy needs (Figure 1). The majority of energy use is for

[3] NVDA's regional energy plan has an appendix that provides more detail on the methodology for creating the energy use estimates: http://www.nvda.net/regional-plan.php

[4] According to the US Energy Information Administration a BTU is the measurement of the quantity of heat required to raise the temperature of one pound of liquid water by 1° F at the temperature that water has its greatest density (approximately 39 °F.) One BTU is a miniscule amount, so BTUs are often measured in the millions (MM BTUs) or thousands of MMBTUs (billions of BTUs).

transportation, followed closely by thermal (heating space and water).




Sutton's existing energy use is dominated by fossil fuels. Although residents rely heavily on the use of wood for heating, more than half of heating sources still come from fuel oil and propane. Just 6% of Sutton's transportation energy use can be attributed to renewable resources, nearly all of which consists of ethanol.

To meet the 90% of its energy use through renewable resources by 2050 (90x2050) goal, Sutton will need to pursue an aggressive two-fold strategy:

**1. Reduce overall energy use:** Sutton's housing stock has grown in recent years, leading to increased energy demand. Aggressive efficiency and conservation measures and behavior modifications (e.g. telecommuting, ride-sharing) can offset increased demand, but they require a sustained effort between local and regional entities and residents. It is therefore essential that Sutton residents are well informed about efficiency and weatherization opportunities/incentives and the benefits that accrue from them.

**2. Switch to clean-burning sources:** The 90x2050 goal entails replacing traditional fossil-fuel uses with electricity, which can come from emission-free nuclear or from renewable sources like wood, solar and hydro.

The following analyses of Sutton's transportation, thermal, and electrical utility sectors use NVDA's estimates as well as projections from a LEAP analysis[5] to identify possible pathways to reach 90 by 2050 energy goals.

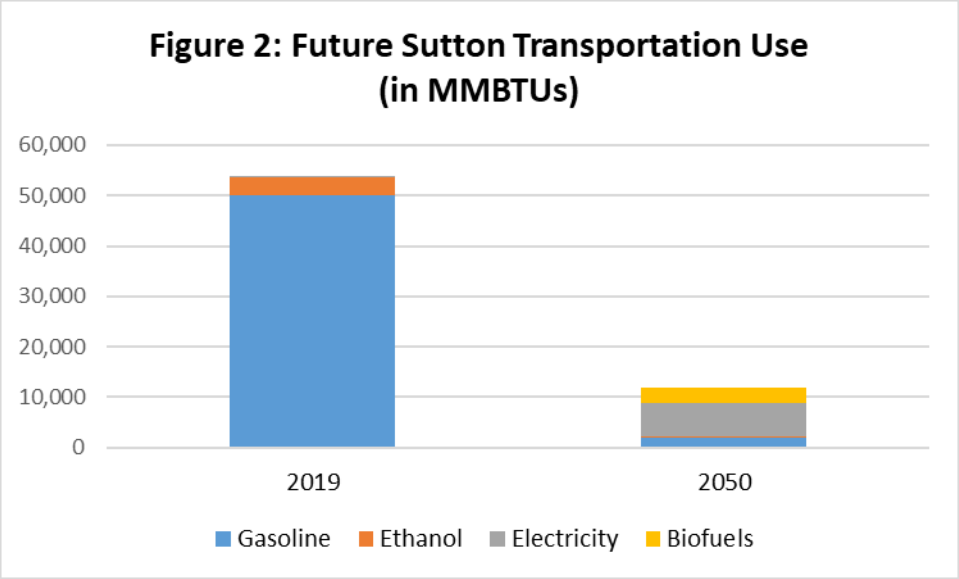
[5] LEAP stands for Long-Range Energy Alternative Planning Systems, a widely used software tool for energy policy analysis. Sutton's LEAP projections are derived from statewide projections, using the town's population as a

*2) Transportation*

Energy use in transportation is greatly influenced by the development patterns of the region. Long commutes (38 miles average) and incidental trips require NEK residents to drive an average of 14,000 miles per year. Collectively, Sutton residents drive nearly 10 million miles annually, accounting for 454,000 gallons (53,000+ MMBTUs) of fossil fuel. Nearly all of this energy is non-renewable. Nine percent ethanol is included in nearly all locally available gasoline and amounts to about 6% of total BTUs. Electricity used for transportation currently accounts for a mere .05%.

Plug-in electric vehicles (EVs) have the greatest potential to reduce Vermont's statewide greenhouse gas emissions. "Refueling," which is as simple as plugging into an electric outlet, costs the equivalent of about $1.00 per gallon. The most current estimates from Efficiency Vermont (June 2020) indicate that there were three registered EVs in Sutton in 2019. All were plug-in hybrids.

Much of the dramatic reduction of energy use in the 2050 LEAP projections is predicated on the superior efficiency of electric vehicles (EVs), as well as increased fuel economy of EVs and biofuels (Figure 2).




Electric end-uses are three to four times more efficient than the combustion versions they replace. For example, figures from the EPA (2016) show that an EV in the northeastern US typically has the efficiency equivalent of about 102 miles per gallon, up from about 78 miles per gallon in 2009. With even more efficient models coming onto the market, increased average

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percentage of the statewide population. The LEAP targets are **not the only way to reach energy goals, but they give a sense of the scope and scale of change needed to minimize climate crisis.**

efficiency will lead to lower greenhouse gas emissions. Despite the lack of infrastructure and hilly terrain of the region, industry forecasts predict that more than half of all new car sales will be EVs by the year 2040.

**Transportation Fuel-Switching Targets for Sutton (LEAP Projections)**

| | 2025 | 2035 | 2050 |
|---|---|---|---|
| Estimated # of cars in Sutton | 804 | 905 | 1,018 |
| Total number of using electricity | 92 | 295 | 635 |
| Total number of cars using biofuel blends | 562 | 386 | 68 |

*2) Space Heating*

According to the Sutton Community Survey, most of Sutton's houses are heated by fuel oil, followed closely by wood. About 25% are heated by bottled, tank, or LP gas, and a handful of homes use a variety of "other" resources. Firewood is produced locally, improves our local economy, and for many, is the most affordable option for space heating.

**Occupied Residential Heating by Fuel Source**

| **Fuel Type: Space Heating** | **Households** | **Total Use (Annual)** | | **% of Use: All** | **% of Use: Owner** | **% of Use: Renter** |
|---|---|---|---|---|---|---|
| Tank/LP/etc. Gas | 48 | 53,928 | Gallons | 13% | 15% | 4% |
| Electricity | 4 | 149,674 | KwH | 1% | 0.00% | 7% |
| Fuel Oil | 146 | 114,416 | Gallons | 40% | 34% | 74% |
| Wood/ | 142 | 731 | Cords/Tons | 39% | 43% | 15% |
| Coal/Coke | 9 | 47 | Tons | 2% | 3% | 0% |
| Other | 17 | - | | 5% | 5% | 0% |

Commercial thermal estimates are more difficult to calculate because there are no published datasets on heating sources. The estimates from the Department of Public Service and the Vermont Department of Labor's Economic and Labor Market Information assume that total commercial thermal use in Sutton is about 11,029 MM (billion) BTUs annually. The methodology identifies just six commercial (i.e. non-residential) uses, and all but the Sutton School are very low thermal users.

LEAP projections for Sutton show a substantial reduction in total thermal use by 2050: for residential, a reduction by about 48% from 2015 levels, and for commercial, a 25% reduction over the same period. Even though these estimates assume a slight increase in residential and commercial structures by 2050, the overall use declines because of:

- aggressive weatherization projects (ones that reduce overall thermal use by 20% to 30%)
- fuel switching, such as replacing residential heating units with heat pumps, and efficient wood burning systems (like wood pellet furnaces)

According to ACS 5-year estimates, roughly 18% of Sutton's owner-occupied housing units predate 1950. These older structures are likely to be "leaky" and poorly insulated, accounting for as much as 80,000 BTUs per square foot. (By comparison, statewide estimates put average thermal residential use to be about 63,000 BTUs per square foot). As of 2018, 31 housing units in Sutton have been comprehensively weatherized to date, resulting in a total savings of 49 MM BTUs. Clearly more effort is needed.[6]

**Weatherization Targets for Sutton (LEAP Projections)**

| | **2025** | **2035** | **2050** |
|---|---|---|---|
| Estimated number of households | 388 | 411 | 436 |
| # of households to be weatherized | 100 | 182 | 195 |
| Estimated number of commercial establishments | 6 | 7 | 7 |
| # of commercial establishments to be weatherized | 0 | 0 | 0 |

Wood pellets are cleaner burning, more efficient than cord wood, and relatively easy to use. Stoves and furnaces can be controlled by a thermostat. Their prices have remained relatively stable. Cold climate heat pumps, which are sometimes called "mini splits", are a significant form of fossil fuel replacement for thermal uses. Thanks to major technical improvements in recent years, these units can be two to three times more efficient than propane and fuel oils. Unlike geothermal units, they do not require excavation or duct work and can be much less expensive to install. Cold climate heat pumps have the capacity to heat about only 50% to 70% of a building, depending on the size and layout of the structure, so many homes will need more than one. Despite recent improvements in effectiveness on extremely cold days, a backup heating source is usually required for sub-zero temperatures.

**Thermal Fuel Switching Targets for Sutton (LEAP Projections)**

| | **2025** | **2035** | **2050** |
|---|---|---|---|
| New Efficient Wood Heat Systems in Residences | 213 | 175 | 127 |
| New Heat Pumps in Residential Units | 63 | 134 | 169 |
| New Efficient Wood Heat Systems in Commercial Establishments | 0 | 1 | 1 |

[6] Vermont Community Energy Dashboard, accessed December 11, 2019

*4) Electricity Use*

Most Sutton residents are supplied with electricity by Lyndonville Electric Department, while the service area to the north is covered by Barton Electric and Vermont Electric Cooperative. With notable exceptions being the Portland Pipeline Pumping Station, several dairy farms, and the local garage, Sutton customers are primarily residential.

**Sutton's Electrical Usage 2016-2018**

| | 2016 | | 2017 | | 2018 | |
|---|---|---|---|---|---|---|
| | **KWh** | **MMBTU** | **KWH** | **MMBTU** | **KWh** | **MMBTU** |
| Commercial & Industrial | 1,517,506 | 5,178 | 1,472,579 | 5,024 | 1,381,630 | 4,714 |
| Residential | 3,008,439 | 10,265 | 3,005,794 | 10,256 | 3,183,146 | 10,861 |
| Total | 4,525,945 | 15,443 | 4,478,373 | 15,280 | 4,564,776 | 15,575 |
| # of Residential Premises | 438 | | 438 | | 440 | |
| Avg. Residential Usage | 6,869 | 23 | 6,863 | 23 | 7,234 | 25 |

Sutton's electric utility data are collected by Efficiency Vermont. Thanks to efficiency measures, customers have reduced their average use in recent years. The predominant efficiency measures have been insulation, replacement of light bulbs and hardwired lighting fixtures. Residents also report that they have improved water heating efficiency, purchased Energy Star appliances, and more efficient electronic equipment.

| | **2016** | **2017** | **2018** | **TOTAL** |
|---|---|---|---|---|
| Electric Savings (KWh) | 49,526 | 169,712 | 70,098 | 289,335 |
| Residential | 43,778 | 86,775 | 49,797 | 180,350 |
| Commercial & Industrial | 5,748 | 82,937 | 20,301 | 108,985 |
| Thermal Savings (MMBTU) | 52 | 41 | 57 | 150 |
| Residential | 2 | 50 | 70 | 121 |
| Commercial & Industrial | 50 | (9) | (13) | 29 |
| Total Customer Cost Savings | $8,934 | $26,907 | $12,706 | $48,547 |
| Residential | $7,380 | $14,081 | $10,039 | $31,501 |
| Commercial & Industrial | $1,554 | $12,826 | $2,666 | $17,046 |

The negative savings (increased usage) incurred by the Commercial & Industrial sector in 2017 and 2018 may be illustrative of *interactive* effects of electrical and thermal efficiency measures. In industrial settings, for example, a switch from incandescent bulbs (which emit a substantial amount of heat) to LED bulbs (which emit very little heat) can actually require additional energy to heat the space. This may explain the negative savings in Sutton. The installation of a cold

climate heat pump may produce thermal savings, but it may also increase electrical use because it is replacing a fuel-oil system. This switching to clean electrical sources, sometimes called *beneficial electrification*, will increase Sutton's electricity usage exponentially, making demand side management critical. More electrical upgrades, such as replacement of fixtures, appliances, and power strips will be necessary.

**Targets for Electrical Efficiency Upgrades (LEAP Projections)**

| | 2025 | 2035 | 2050 |
|---|---|---|---|
| Estimated number of residential customers | 628 | 666 | 706 |
| # of residential customers to upgrade electrical equipment | 158 | 249 | 365 |

## D. Conservation of Energy

Using less energy with greater efficiency saves money and conserves resources. To that end both State and Federal governments have initiated both mandates and educational programs. Efficiency Vermont, through its website, as well as other forms of public outreach, provides information and resources to both individuals and businesses. www.efficiencyvermont.com

Northeast Employment and Training Organization (NETO) provides services to both low- and average-income Vermonters, including the State Weatherization Assistance Program and its energy audit services: www.vtneto.org

Heat Squad, a service of NeighborWorks of Western Vermont, recently expanded its service into the Northeast Kingdom, offering low-cost whole house energy audits: www.heatsquad.org/

The Town of Sutton encourages energy conservation and acknowledges individual responsibility for conservation of energy while sustaining our natural resources. The most effective conservation efforts begin with the individual who improves home or business weatherization, who replaces old inefficient appliances with Energy Star models, who installs efficient light bulbs, who drives fewer miles in a more fuel-efficient vehicle, and who carpools when possible. Due to flexibility of hours worked, the use of private vehicles as part of work and the variety of places worked, carpooling is not seen as a viable option for most people. Use of more fuel-efficient vehicles and telecommuting will be the major forms of savings in transportation.

## E. Land Use and Energy Conservation

Local land use policy can and should play a critical role in Sutton's energy conservation strategies. The Town of Sutton, for example, encourages new and denser development in and around the village area, which is close to existing development and services (such as municipal water, the town offices and the school). The Town can also discourage growth in areas not well-serviced by roads and public infrastructure or which have important natural resources, such as Sutton's working lands. Encouraging clustering and avoiding large lot residential development in

these areas will help to preserve Sutton's agricultural and forestry resources. It can also help to preserve shade and windbreaks. In addition, allowing for flexibility in site design of new properties should allow for access for passive solar orientation for residential uses.

There are several "green building" developmental techniques that lend themselves to the conservation of energy. Southern orientations, cluster housing, and the use of topography or vegetation to shield structures from the prevailing winds reduce energy usage.

State law already requires builders to file residential and commercial energy code certificates in the town land records within 30 days of completion of project. Recent changes to state law, however, now impact the local zoning process. The zoning administrator must now provide code information to anyone who applies for a building permit. Also, prior to the zoning administrator issuing a certificate of zoning compliance, applicants/builders must file an energy code certificate. Processes ensuring compliance with these laws in Sutton are needed.

Audits of Town of Sutton public buildings were completed in 2011. The most pressing concerns identified in the energy audits of the Town Clerk's Office/Garage and the Fire Station/Grange Hall were related to improving their thermal envelopes. The audits also identified a code violation (improper venting in the Grange Hall) and the potential for a carbon monoxide leak from the Town Garage into the Town Clerk's Office. While the Grange Hall is not presently in use and Sutton has a new energy-efficient Fire Station, the Town should follow up on the audit recommendations to make sure that the Town Clerk's Office/Garage are energy efficient and as safe as possible. The Kingdom East School District, which is leasing the Sutton School, should be approached to ensure the school is kept up to efficiency and safety standards.

## F. Planning Considerations

*1) Energy Burden*

Energy burden, which is expressed as energy spending as a percentage of income, is fairly high in the rural Northeast Kingdom. A new report from Efficiency Vermont estimates average energy burden statewide to be about 10%. Sutton's energy burden is estimated to be 11%. While 86% of respondents for the Sutton Community Survey noted heating/fuel as one of their top three expenses, the greatest determinant of energy burden is *income*, not fuel cost, so even though many residents are able to reduce their costs by burning wood, they still struggle to make ends meet.

Energy burden further complicates meeting 2050 challenges of the statewide energy plan because more-burdened households are less likely to pursue weatherization or fuel switching. Even if those measures save money in the long run, owners simply can't afford it. The same economic challenges that drive inequities across the state are likely to reduce energy program participation among low-and moderate-income Vermonters.[7] While energy efficiency utilities

[7] Vermont Energy Burden Report, October 2019

typically focus on large users to achieve more dramatic savings, services must be aligned to energy-burdened users as well. Heat Saver loans offer 0% financing for low-income customers, up to $40,000 for weatherization and heating improvements. To date, Sutton residents have used more than $43,000 in Heat Saver loans to make their homes more efficient. [8] Heat Squad's recent entry into the Northeast Kingdom makes affordable whole-energy audits available to low- and moderate-income households. Similar programs are needed to ensure participation for the more than 160+ households in Sutton with incomes below the county median income.

*2) Biomass*

The attached Woody Biomass map illustrates Sutton's potential for providing wood energy. Forests cover about 85% of the town's land mass, making the use of residential wood heat a time-honored tradition. Sutton residents use forests predominately for firewood, timber, wood chips, and maple sugaring.

Sutton's large areas of forest cover provide critical wildlife habit as well as opportunities for non-consumptive, non-motorized recreation. They also provide critical ecological functions by fostering biological diversity and passage for wildlife adapting to changing weather patterns. Upland forests provide flood control through water infiltration and retention capacity that also recharges ground water and reduces flood flows in increasingly erratic and severe weather.

Forests are also a critical tool for mitigating the effects of climate change because of their potential to sequester atmospheric carbon. Just how much carbon a forest sequesters varies widely (generally 1-3 tons/year) and depends on a number of factors, including the size of the forest block; the number, species, and age of trees; soil type and depth; amount of dead organic material; and disturbances such as insect defoliations and storm damage. Nevertheless, each acre of Vermont forests, on average, stores the rough equivalent of annual emissions from 62 cars. Overall, Vermont's forests are considered a net sink (i.e. they take in more CO2 than they release). Incremental fragmentation and poor management practices, however, can diminish their ecological functions and threaten their viability. In addition to state-managed lands, the town has a large number of enrollments in the Current Use program and several conservation easements, all of which promote effective stewardship of working lands. Finally, the town's zoning bylaw has a working lands district that discourages fragmentation by allowing for the creation of small lots while maintaining an overall low density.

One of the implementation strategies for this section we will be to invite the Agency of Natural Resources, the Energy Action Network and Energize Vermont to collaborate with Sutton and other towns to develop a method of accounting for carbon sequestration.

## E. Development of Renewable Energy Resources

*1) Existing generation*

[8] Vermont Community Energy Dashboard, Community Progress Maps, accessed December 12, 2019.

The Northeast Kingdom Regional Plan has a new net annual generation target of 18,680 MWh (i.e. new generation after 2017.) This target is fairly low to account for the substantial amount of energy generation already coming out of the region, including utility wind projects in Sheffield and Lowell. Sutton's annual generation target, which is based on the town's share of the region's population is 298 MWh/year.

The PUC has issued five Certificates of Public Good (CPGs) in Sutton since 2017. All are for solar installations – three roof-mounted, two ground-mounted. They have a collective capacity of 37.7 kW and generate an estimated 46.2 MWh annually. In conjunction with building the new fire station, the town has installed a photovoltaic cell array on the roof that has begun to meet its electricity needs. The potential exists to expand this array to offset the town's electrical use.

*2) Target Generation and Potential Generation*

The attached solar and wind resource maps identify potential areas for siting and quantifying generation output. Underlying assumptions were made about suitability factors, such as slope and direction of land, elevation and wind speeds, and access to three-phase power. Prime areas for renewable generation are locations with no known or potential constraints.

**Known constraints** are considered unsuitable for renewable energy because they 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 the 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.

**In addition to known and possible constraints, unsuitable areas** are shown in yellow on the wind and solar map. These are lands with an elevation of 2,000 feet or more that should be protected from any large-scale commercial or industrial development characterized by a structure height of 100 feet or more, and an acre or more of permanent site disturbance, such as clear-cutting. These lands contain one or a combination of factors that make them unsuitable to such development: contiguous forest cover; sensitive wildlife and plant habitat; conservation lands and recreational assets; managed forestland; and headwaters and ephemeral surface waters, which are highly vulnerable to erosion and man-made disturbance. This high-elevation forest cover must be kept unfragmented for the attenuation of flood flows, the integrity of wildlife habitat and landscape-scale connections/linkages, and for public enjoyment through non-consumptive, non-motorized recreation.

To calculate total generation potential, this plan uses generous contingencies to conservatively account for potential constraints and connectivity issues.

**Estimated Generation Potential for Sutton**

| | Capacity (MW) | Output (MWh) | Assumptions |
|---|---|---|---|
| **Roof- mounted solar** | .15 | 179.5 | One out of every 10 existing year-round residences, each with a 4 KW capacity, and a capacity factor of 14%[9] |
| **Small commercial rooftop structures (including barns)** | .02 | 24.5 | One structure, with a 20 KW capacity, with a capacity factor of 14% |
| **Ground-mounted solar** | 20.83 | 25,542.0 | One MW for every 60 acres of prime solar land, all with a capacity factor of 14% |
| **Wind** | .01 | 10.0 | One 9.5 kW system for every 25 acres of prime wind, with a capacity factor of 20%. (High elevations lands are unsuitable for utility scale development, so only home-scaled systems are used in this calculation.) |
| **Small hydro** | .026 | 91.1 | Based on a 2008 study on existing dams. Stringent licensing requirements make the establishment of small hydro very unlikely. |
| **Total** | **21.036** | **25,847.1** | |

*4) Resources*

The cost of home-based solar heat/power installations has been dropping rapidly and, if properly sized, can pay for themselves in just a few years through net metering. The town encourages rapid growth in the number and installed capacity of these roof-top systems.

Use of domestic scale renewable energy resources such as solar, wind, hydro and wood ought to be encouraged. Vermont has a number of programs that encourage and defray the cost of renewable energy installations. The Energize Vermont Website has links to a number of resources pertaining to solar sources. It also features the community energy initiative and the Power Up Vermont Program. www.energizevermont.org

The Property Assessment Clean Energy (PACE) program provided financing for homeowners to invest in efficiency or renewable energy improvements through a special assessment tied to the

[9] Solar estimates only assume a capacity factor for a fixed system to err on the conservative side. Trackers would increase the capacity factor.

property. Unfortunately, this program is inactive. The town encourages efforts to revive PACE or a similar mechanism for financing residential renewables.

## G. Renewable Energy Siting Standards

*1) General Standards*

- In-place upgrades of existing transmission lines, distribution lines, and substations are needed to serve the town and region: To the extent feasible, existing utility systems, including transmission lines, distribution lines, and substations, should be upgraded or expanded on site or within existing utility corridors before new facilities or corridors are considered.

- Energy facility development must benefit the Town of Sutton and its adjacent communities (residents and businesses). The benefit must be in direct relation and proportion to the documented impacts of the proposed development on community facilities, services, economy and resources.

- 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 (SHEI), where several existing generators are frequently curtailed by the ISO. While the Town of Sutton encourages appropriately scaled renewable energy development, such development must be sustainable and feasible, and should not merely substitute one renewable resource with another. The Town of Sutton, therefore, supports energy development that will not exacerbate curtailment at issue within the SHEI. It is unlikely that any single solution will solve congestion within the SHEI and, as such, it is anticipated that incremental progress will be achieved as partial solutions are implemented. In the meantime, the Town of Sutton will support projects that are consistent with the land use and conservation measures in this plan. Additionally, we will expect project developers to work with utilities and other stakeholders to explore innovative strategies that shift generation away from the hours when generation exceeds load within the SHEI area or otherwise avoids exacerbating congestion on the grid. An example of such a project would pair a battery with a solar facility to control when the project's power is exported to the grid.

- The height, setbacks, and access of renewable energy projects must be carefully considered with the goal to minimize impact to the viewshed and neighboring landowners.

- Siting should involve the Agency of Natural Resources at the start of the project to avoid problems with wetlands and protected or threatened species. Siting must avoid hazard areas such as floodplains and steep slopes, conservation areas where there will be an adverse impact on surface waters, primary agricultural land as mapped by the USDA, Natural Resource Conservation Service for the state and significant wildlife habitat areas.

Impacts to forestland should be minimized by using existing roads and locating along existing tree lines to avoid forest fragmentation.

- All facility certificates shall specify conditions for system decommissioning, including required sureties (bonds) for facility removal and site restoration to a safe, useful, and environmentally stable condition. All materials and structures, including foundations, pads, and accessory structures (to a depth of 18 inches below pre-project grade), must be removed from the site and safely disposed of in accordance with regulations and best practices current at the time of decommissioning.

*2) Wind Generation Siting Standards*

Sutton has limited potential for wind energy development, and the municipality lacks areas with elevations sufficient to support utility scale wind development (100KW or greater). Moreover, the Town of Sutton supports the policy of the NVDA's regional plan, which states that upland areas of 2,000 ft elevation or higher, headwaters, forest coverage of site class 1, 2, or 3 priority forest habitat blocks, and state natural areas and fragile areas are unsuitable for utility-scale energy development. The Town has consistently objected to and testified against such a development in Sheffield. Expansion/repowering of such development, or new development on adjacent ridgelines will exacerbate an already profoundly negative impact on the natural profile of the mountain ridgeline, which forms an iconic backdrop visible from many points in Sutton. As it is, our peaceful night skies have been compromised by eight flashing red collision-avoidance lights. Because no locations in Sutton have a suitable wind resource, infrastructure availability, or areas free from significant environmental constraints, no utility-scale wind energy facilities should be located in town. Smaller scale wind projects, including residential-scale turbines (generally less than 10 kW) may be appropriate as long as noise from the turbines does not adversely affect neighboring residential properties. While these constraints are protective, they may be overruled in the PUC's Section 248 permitting process and in such instances the following specific standards shall apply.

- Turbines shall be restricted to a height of not more than 100 feet to tip of blade in vertical position.

- Turbines shall be set back from property boundaries a minimum of one and a half miles.

- With the intent of meeting the World Health Organization noise building-interior standard of 30 fast A-weighted decibels (LAFmax), with windows fully open at any time of year, the exterior standard shall be 31 dBA max when measured 100 feet from an occupied residence in the direction of the nearest wind turbine.

*3) Solar Siting Standards*

- The Town of Sutton encourages solar energy development, of any scale, on building rooftops as long as the maximum building height does not exceed 35feet. All solar

generation shall be considered a conditional use, shall meet the industrial performance standards (Section 408 of the Sutton Unified Development Bylaws) and shall be subject to appropriate screening provisions.

- The Town supports the development of small-scale (150 kW capacity or less) electricity generation from solar energy at homes, businesses, schools, and other institutions, as well as community solar projects, which benefit Sutton residents who might not otherwise be able to participate in a clean energy project. (This policy is intended to be more restrictive than state-defined "community solar projects" which are group net-metered installations between 15 kW and 150kW in capacity, with shares in the facilities sold to the site owner, neighbors, community members, nonprofit organizations, and local businesses and from which renewable energy credits (RECs) remain with the project)

- The Town strongly supports the integration of on-farm solar generation into active agricultural uses that can help farms reduce expense, generate extra income, and remain viable. The town supports siting solar on existing farm structures, or in a manner that supports grazing, the establishment of pollinator crops, or the creation of buffers between organic and non-organic production areas.

- **Mass and Scale:** Except for projects located on preferred sites, solar facilities larger than 2 acres, individually or contiguous, cannot be adequately screened or mitigated to blend into the municipality's landscape and are, therefore, explicitly prohibited.

- **For all new ground-mounted solar facilities with a capacity of 15 kW or greater:**

    - All new solar facilities must be evaluated for consistency with community and regional development objectives and shall avoid undue adverse impacts to significant cultural, natural, scenic, and aesthetic resources identified in the Sutton Town Plan. When evaluating the impacts of a proposed solar facility under the criteria set forth in this Town Plan, the cumulative impact of existing solar facilities, approved pending solar facilities, and the proposed solar facility itself shall be considered. It is explicitly understood that a proposed solar facility which by itself may not have an adverse impact, may be deemed to have an adverse impact when considered in light of the cumulative impacts of the proposed solar facility and existing and pending facilities.

    - All new solar facilities shall be sited in locations that do not adversely impact the community's traditional and planned patterns of growth, of compact (village) centers surrounded by a rural countryside, including working farms and forest land. Solar facilities shall, therefore, not be sited in locations that adversely impact scenic views, roads, or other scenic areas identified in this plan, nor shall solar facilities be sited in locations that adversely impact any: views across open fields, especially when those fields form an important foreground; prominent ridgelines or hillsides that can be seen from many public vantage points and thus

form a natural backdrop for many landscapes; historic buildings and districts and gateways to historic districts; and, scenes that include important contrasting elements such as water. The impact on prime and statewide agricultural soils currently in production shall be minimized.

- **Screening:** All new solar facilities shall be sited and screened so that visual impacts of such facilities, including but not limited to, solar panels, transformers, utility poles, fencing, etc., are mitigated as viewed from public streets and thoroughfares, scenic viewpoints, and/or adjacent properties. Screening shall provide a year-round visual screen and shall occur on property owned or controlled by the owner and/or operator of the solar facility. A diversity of materials shall be used to create a diverse, naturalized screen rather than a large expanse of uninterrupted, uniform material. Materials may include: trees and shrubs indigenous to the area, and berms, or a combination thereof, to achieve the objective of screening the site. All screening shall be maintained to optimize screening at all times by the owner and/or operator of the solar facility until the solar facility is decommissioned and removed. Plantings that die or become diseased shall be replaced within six months of dying or becoming diseased.

- **Preferred Areas:** The following areas are specifically identified as preferred areas for solar facilities, as they are most likely to meet the siting and screening requirements:
  - Roof-mounted systems;
  - Systems located in proximity to existing commercial, municipal, or industrial buildings;
  - Proximity to existing hedgerows or other topographical features that naturally screen the entire proposed array;
  - Former brownfields;
  - Facilities that are sited in disturbed areas, such as gravel pits, closed landfills, or former quarries;
  - Working farms, where more than 50% of the energy generated by the solar development is used by the farm.

- **Prohibited (Exclusion) Areas**: In addition to those areas that do not meet the siting and screening requirements set forth above, development of solar generating facilities shall be excluded from (prohibited within), and shall not be supported by the Town, in the following locations:

- Floodways shown on Flood Insurance Rate Maps (FIRMs);
- Fluvial erosion hazard areas (river corridors);
- Class I or II wetlands;
- A location that would significantly diminish the economic viability or potential economic viability of the town's working landscape, including productive forest land and primary agricultural soils (as defined in Act 250 and as mapped by the U.S. Natural Resource Conservation Service);
- Rare, threatened, or endangered species habitat or communities as mapped or identified through site investigation, and core habitat areas, migratory routes and travel corridors;
- Ridgelines: Elevations above 2,000 feet, specifically, those within and adjacent to the Willoughby State Forest, Mt. Hor, Wheeler Mountain, and Norris Mountain.
- Steep slopes (>25%)
- Surface waters and riparian buffer areas (except for stream crossings);

- Topography that causes a facility to be prominently visible against the skyline from public and private vantage points such as roads, homes, and neighborhoods;

- Solar energy installations, trackers and roof mounts, should be sited in such a way to prevent adverse impacts to historical and cultural resources including:

  - Removal or demolition;
  - Physical or structural damage,
  - Significant visual intrusion, or threat to the use;
  - Significant intrusion in a rural historic district or historic landscape with a high degree of integrity;
  - Significant visual intrusion into a hillside that serves as a backdrop to a historic site or structure;
  - Creation of a focal point that would disrupt or distract from elements of a historic landscape;

- Impairment of a vista or viewshed from a historic resource that is a significant component of its historic character and history of use;
- Visually overwhelming a historic setting, such as by being dramatically out of scale;
- Isolating a historic resource from its historic setting, or introducing incongruous or incompatible uses, or new visual, audible or atmospheric elements.

**For all new solar facilities with a capacity of 150 kW or greater:**

Only sites identified as **Preferred solar sites** on the Solar Resource Map or **Preferred Areas** as identified above may be developed for solar generation facilities with a capacity of more than 150 kW. All siting and screening requirements as identified above must be met.

## H. Implementation

| Action | Responsible Party | Time Frame |
|---|---|---|
| Publicize successful examples of efficiency, weatherization, and renewable energy production to promote change.<br><br>Continue public education and publicize success stories on weatherization, heating systems and renewable energy projects.<br><br>Invite the Agency of Natural Resources, the Energy Action Network and Energize Vermont to collaborate with Sutton and other towns to develop a method of accounting for carbon sequestration. | Energy Committee, with assistance from Vermont Community Energy Dashboard (https://www.vtenergydashboard.org/) | Ongoing |
| Make information available about lending programs that can improve the efficiency of older housing stock, such as Efficiency Vermont's "Heat Saver" loan and USDA Direct and Guaranteed Loan Programs, for single homes and multi-family homes.<br><br>Provide on-going education and links to professional resources, e.g. Efficiency Vermont, Vermont Energy and Climate Action Network | Selectboard, Planning Commission, Energy Committee, Town Clerk's office, Town web site, NVDA | Ongoing |

| | | |
|---|---|---|
| Update Bylaws to complement state standards for siting of outdoor wood-energy boilers and ensuring they so not become a nuisance.[10] | | |
| Collect data on current energy usage in town buildings. | Energy Committee | 2020 |
| Carry out energy audit recommendations for Town Clerk's Office/Garage and Sutton School. Collect data on energy use after implementation of audit recommendations. Publicize the results of energy savings from the town energy audit, weatherization, and energy savings. Publicize the results of weatherization and energy efficiency changes in the school buildings | Selectboard, School District, Energy Committee | 2020 |
| Consider town funding of a bulk purchase of LED light bulbs to sell to Sutton residents. | Selectboard, Energy Committee | 2020 |
| Hand out information and establish processes that encourage good energy conservation practices, e.g. complying with state regulations for residential building energy efficiency standards, not taxing solar panels or energy efficiency home improvements. | Selectboard, Planning Commission, Town Clerk | 2020 |

[10] The state regulations are at: https://dec.vermont.gov/sites/dec/files/aqc/laws-regs/documents/AQCD_Regulations_2016_Dec.pdf#page=22

| | | |
|---|---|---|
| Develop more complete baseline data on energy usage including electricity, heating energy, and fuel for road operations in order to identify ways to make additional improvements such as more generation of power, conservation, building improvements, and operational practices. Encourage this through crowd sourcing information on the Vermont Community Energy Dashboard. | Energy Committee | 2020 |
| Promote pedestrian friendly, bike-friendly facilities to encourage less motor vehicle driving. | Planning Commission | Ongoing |
| Reduce vehicle idling in private and public spaces. | Selectboard, School District | Ongoing |
| Ensure fire fighters have training for firefighting in roof-mounted solar buildings. | Fire Department | Ongoing |
| Provide for and promote net-zero energy use and near-net zero energy construction/development, such as "passive design" principles, and Vermod, https://vermodhomes.com/ in the Unified Development Bylaws. | Planning Commission | 2020 |
| Work with the Northeast Kingdom food leadership coalition and others to leverage resources for food producers (such as reverse osmosis systems for maple syrup producers, through Rural Energy for America Grants). | Planning Commission, Energy Committee | Ongoing |

# Sutton Town Plan

## X. HOUSING ELEMENT

### A. Introduction

A town plan exists to encourage and maintain the well-being of the towns' residents. Housing is a necessity. Ensuring that housing remains affordable for the towns' residents is thus within the purview of the town plan.

A household's total housing costs should be 30% or less of the household income in order to be considered affordable. While the 30% rule generally applies to housing costs for all income brackets, Vermont statute sets different income limits for owner-occupied housing and for rental housing. Rental housing is classified as "affordable" if it serves households earning no more than 80% of county median income, while owner-occupied housing is considered affordable if it is priced to serve households earning up to 120% of county median income. This change in statutory definition accounts for the number of higher-income individuals who still have difficulty finding suitable housing.

The 120% threshold is often referred to as "workforce" housing. It is used to describe housing for those who are gainfully employed in occupations that are essential to a community, such as teachers, healthcare workers, first responders, as well as occupations that may pay relatively lower incomes, such as food services, retail, hospitality and tourism. It does not typically include age- or income-restricted housing, nor is it likely to be supported through the use of subsidies.

### B. Goals

- To insure the provision of affordable housing to all of Suttons' residents, especially those earning less than 80% of the county median income (i.e. those considered to be low or moderate income).

### C. Analysis

The data that follows is taken from the Census Department's American Community Survey, the most recent five-year averages, 2012-2016. The information is not formatted in such a way as to allow the determination of the percentage of Sutton's household's making less than 80% of the Caledonia County median income which are also spending more than 30% of income on housing.

Of the 370 households, 333 are owner occupied, 218 with a mortgage. About 49% of those mortgaged households spend 30% or more of income on housing. There are 115 un-mortgaged owner-occupied households, of which about 10% spend 30% or more of income on housing.

There are 37 occupied units which are deemed rentals. Three of those units have no rent paid. Of the remaining rental units about 40% spend 30% or more of income on gross rent.

## D. Conclusion

It is reasonable to assume that Sutton's residents with low and middle incomes have difficulty finding affordable housing. The Sutton Unified Development Bylaws have been amended to allow for the provision of multi-family dwellings as a way to provide affordable housing. This change brings the Town's bylaws into compliance with 24 VSA, Section 4412(1), which requires the town to allow both affordable and multi-family housing. The town could further encourage multi-family development by abating taxes on multi-family dwellings. In the village area, property owners may be able to receive tax credits for fit-up of income producing buildings – such as multi-unit housing – if the town were to receive Village Center Designation. The designation is not regulatory and provides a powerful incentive to re-invest in in the village area. Additionally, state regulation recognizes accessory unit dwellings as a permitted use of owner-occupied dwellings.

## E. Implementation

| Action | Responsible Party | Time Frame |
|---|---|---|
| Investigate a tax abatement for multi-family dwellings | Selectboard | 2019 |
| Consider pursuit of "Village Center" designation for Sutton | Selectboard, Planning Commission | 2019 |

# XI. Economic Development

Sutton is a small rural town whose local economy remains grounded in farming and forestry, but whose residents are employed in a diverse array of occupations within the community and in neighboring towns and cities. Like most of the nation and State of Vermont, Sutton is emerging from the recent recession with reinvigorated economic activity and new hope for the future. While Sutton's economy, employment level, and median household income continue to lag behind those of Vermont and the United States in general, the town has significant opportunities for further economic development that is consistent with the community's commitment to maintain a viable working landscape and a balance between economic and environmental sustainability.

## A. Economic Overview

Sutton's population is 1,029, 3.3% that of Caledonia County, and more than double that of Sutton in 1970 (except where indicated, census, demographic, and economic data are from U.S. Census Bureau, American FactFinder, 2010 figures). Nearly three-quarters of the town's growth has come from the migration of people to the town. While much of the growth has resulted from Sutton becoming a bedroom community for people who work in surrounding larger towns, other

new residents have elected to retire here, in some cases converting seasonal homes to year-round residences.

Sutton's residents are overwhelmingly white (96.8%) and native-born, with a median age of 42.3. There are 403 households in town (average household size 2.55), and 486 housing units, of which 403 are occupied. 191 students, age 3 and above, are enrolled in schools. 736 town residents are of age 25 or above. Of these, 624 (85%) have at least a high school degree.

Sutton's unemployment rate (as of September 2015) is 4.2%, compared with 3.9% in Vermont and 5.0% for the nation. The town's annual median household income is estimated at $49,167, compared with $46, 931 in Caledonia County, $51, 841 in Vermont, and $56,516 for the U.S.

According to City-Data.com (2015 data) the primary industries employing Sutton's residents are:

- Agriculture, forestry, fishing and hunting (employing 10.3% of the labor force)
- Educational services (7.5%)
- Health care (6.9%)
- Food and beverage stores
- Public administration (6.3%)
- Electrical equipment, appliances, and components (6.1%)

The remaining employees are spread over 38 additional industries.

Of industries located within the town, Sutton's approximately 20 working farms and the Sutton School are principal employers. Thriving businesses in town include two commercial garages/auto repair shops, a sand and gravel company, a solar energy firm, a trucking company, and the recently reopened Evergreen Forest Products (formerly Greenwood Mill) sawmill. Many other Sutton residents are self-employed in construction, education, the arts, consulting, design, outdoor recreation, and other fields. Sutton's Town Plan encourages home-based businesses.

## B. Challenges and Opportunities

As has the region and nation, Sutton has weathered the recession of 2007-2011 and is recovering with an improved employment picture, new local businesses, and increasing family incomes. Despite the improvements, Sutton has been negatively affected in the last few years by three events or factors:

Milk prices. While subject to change, Vermont's dairy farmers are currently getting low prices for milk, approximately the same as they received 20 years ago, and down significantly from 2014. The number of dairy farms in Vermont and Caledonia County has declined to a level now

less than seven percent of that in the 1940's. While prices are beyond the control of individual farmers, the Vermont Milk Commission of the state's Agency of Agriculture, Food and Markets is working closely with farmers and state and federal government to advance and implement findings and recommendations of its recently completed "Report and Recommendations of the Vermont Milk Commission, January 2018". In addition, dairy farmers are increasingly pursuing additional economic opportunities including the production and sale of alternative farm products, (including items like specialty cheeses and other dairy products; baked goods; jams, jellies, and canned vegetables; maple syrup; wood products; cider; and craft beer), and agri-tourism (e.g., corn mazes; sleigh- and hay-wagon rides, and farm B&Bs).

Closure of the King George School. In 1998, the King George School, a private, year-round boarding school for grades 9-12, was established on the former Grinnell Martin farm property on King George Farm Road. The school provided an alternative learning environment, using art as therapy, for learning-challenged teenagers. At its peak, the school enrolled approximately 50 students, had nearly 50 employees, and contributed over $3 million annually to the local economy. Unfortunately, the school closed in 2011 and the buildings have been vacant since then (the property is for sale). While this has been a significant economic loss to Sutton, the town is hopeful that the right buyer will convert the property into an environmentally compatible and economically desirable use.

Collapse of the EB-5 program in the Northeast Kingdom. In 2008, two investors launched an ambitious scheme to stimulate massive economic development in the Kingdom through the federally-supported EB-5 Visa program. Seven hundred foreign investors were recruited to invest up to $800 million in economic development projects in the Kingdom. With a minimum $500,000 investment and reasonable assurance of new jobs, investors would receive a Green Card. Approximately $350 million was secured, with the money targeted for expansion of the Jay Peak resort, new businesses in Newport, VT, and a new hotel/conference center and ski slope improvements at Burke Mountain. Extensive new development and improvements at Jay Peak were realized, and the Burke Mountain hotel was completed, but most of the planned projects were not completed as the federal Securities and Exchange Commission uncovered substantial mismanagement and fraud. The projects were halted and the new assets were turned over to a receivership. While the EB-5 program did not directly impact Sutton, its termination meant that many jobs that might have gone to Sutton residents never materialized. One positive note: The completion of the new Burke Mountain hotel/conference center and improvements to the mountain constitute new economic and job opportunities for the region.

Despite these recent setbacks, Sutton has seen the establishment or reopening of several new businesses, including the Evergreen Forest Products (formerly Greenwood Mill) sawmill on Calendar Brook Road. The mill employed 10-15 persons during its previous operation. The significant expansion of outdoor recreation in the East Burke area (including the explosive growth of mountain biking); the growth of winter sports in the area, including skiing, snowshoeing, and snowmobiling); and the continuing appeal of Sutton's natural areas and hunting lands to visitors also represent potential for future economic opportunities for the town. Still, Sutton must remain cognizant of its goal to ensure an approach to growth that balances

economic opportunities with a sustainable environment and community—that continues to ensure both the "pretty" and the "practical."

## C. Opportunities in a Regional Context

Sutton, with the rest of the Northeast Kingdom, is fortunate that a number of regional, state, and federal organizations and programs support (including, in some cases, through grants and loans) the area's economic development. Notable among these are:

- U.S. Department of Agriculture, Rural Development Agency: https://www.rd.usda.gov/
- Northern Border Regional Commission (NBRC): http://www.nbrc.gov/
- Northeastern Vermont Development Association (NVDA): www.nvda.net
- Northern Vermont Economic Development District (NVEDD): http://www.nvedd.org/

Several recent reports by these organizations present comprehensive information and recommendations for appropriate economic development in the Northeast Kingdom. The reports emphasize the importance of town economic planning in a regional context: Towns like Sutton should not plan in a vacuum but must take into account both the opportunities and the challenges posed by other development and economic change in the region. Reports that may be particularly valuable to Sutton as it considers its economic future include:

- Northern Vermont Economic Development District Comprehensive Economic Development Strategy. 2016-2020: http://www.nvedd.org/Publications/NVEDD2017AnnualReport.pdf
- Northern Border Regional Commission 2017-2021 Strategic Plan: http://www.nbrc.gov/uploads/004%20RESOURCES/Five%20Yr%20Strat%20Plan/NBRC%20Strategic%20Plan%2C%20Full%20Study.pdf
- Vermont Department of Labor, Vermont 2017 Economic Demographic Profile Series: http://www.vtlmi.info/profile2017.pdf
- NVDA--Strategic Industries in the Northeast Kingdom: http://www.nvda.net/files/NVDA-StrategicIndustries_Report_June_2011_WOR.pdf

The last report deserves special attention as it provides a comprehensive framework for economic development in the Northeast Kingdom oriented around regional industry "clusters."

In 2010 NVDA commissioned a study of the key industry clusters for the Northeast Kingdom. Using an iterative analysis of sector data, including employment concentration, wage performance and stability, growth and change, and supply chain interrelationships, the study identified important clusters for the region. These include the following:

- Agribusiness, food processing & technology cluster. One of the "stars" of the Northeast Kingdom, this cluster is made up of twelve production, processing and distribution segments. With a 2009 critical mass of 75 establishments, employing 654 workers with

average wages of $33,270; this cluster has exhibited strong growth over the business cycle period of 2001-2009. Its measure of economic specialization (called location quotient) has increased over time; meaning its export orientation continues to strengthen. Overall, the Northeast Kingdom's agribusiness cluster has outperformed its national counterpart over the study period. Finally, this regional cluster has not gone unnoticed—growth and development in the Northeast Kingdom agribusiness cluster has been cited in national studies and the popular press. This cluster also represents a tie to the 41 traditional land-based economy, a critical part of the region's traditional landscape that enhances the region's scenic beauty.

- Education and knowledge creation cluster. Composed of education services (private), publishers and other information services, the education and knowledge creation cluster is in its incipient stage, with limited interconnections with other sectors in the region. This cluster showcases a number of nationally (and internationally renowned) educational institutions such as the St. Johnsbury Academy, Lyndon Institute, Burke Mountain Academy, Northern Vermont University, and Sterling College.

- Fabricated metals and machinery manufacturing cluster. The fabricated metals and machinery manufacturing enterprise is a mature and diversified contributor to the Northeast Kingdom economy. The combined industry is in the midst of a recovery after the recent debilitating recession which saw the loss of several fabricated metals companies. Given the significant orientation toward national and international markets, many firms within this cluster are once again showing signs of life and beginning to hire back laid-off workers and expand production. Workforce training issues are paramount within this cluster.

- Forest and wood products cluster. Overall, a cluster composed of several "mature" sectors including wood products manufacturing, paper manufacturing, and furniture products manufacturing. Though showing significant signs of decline (employment base of 2,500 workers in 2001 had dropped to 1,450 by 2009), the churning has spawned a number of developments in niche markets. As in the agribusiness and food processing cluster, forestry and wood products are part of the traditional economic base of the Northeast Kingdom providing many opportunities for convergence and intersection with other economic activities, including visitors and tourism.

- Visitor and tourism cluster. Another "star" cluster for the Northeast Kingdom that has shown solid growth in recent years. Significant investments will help make the region a year-round destination. Though these developments will continue to add jobs to its solid base of nearly one thousand workers, wages remain relatively low within this industry, due largely to continued seasonality and part-time opportunities.

As Sutton considers its own economic development strategy for the first half of the 21st century, the NVDA regional industry cluster analysis can help guide the town's planning and decisions. For the foreseeable future, Sutton's sustainable economic growth will continue to be strongly

tied to the town's abundant natural resources, working landscapes, and scenic beauty. These assets will stimulate additional opportunities in the farming, forestry, agri-tourism, and recreational industries.

## D. Conclusions

Despite the downturn in the economy between 2007 and 2011, recent setbacks in the agricultural economy, the demise of the EB-5 Visa program, and the closure of the King George School, Sutton is showing signs of recovery with new businesses, expanded employment, and renewed hope. The town has significant opportunities for further economic development that is consistent with the community's commitment to maintain a viable working landscape and a balance between economic and environmental sustainability. In addition, there is a strong regional, state, and federal framework to help Sutton chart and realize a vibrant economic future.

## E. Implementation

| Action | Responsible Party | Time Frame |
|---|---|---|
| Consider pursuit of "Village Center" designation for Sutton | Selectboard, Planning Commission | 2019 |
| Consider opportunities to redevelop Grange Hall to house a commercial enterprise such as a day-care targeting before- and after-school needs. | Selectboard, Planning Commission | 2021 |
| Encourage redevelopment of King George School | Planning Commission | 2020 |
| Further investigate redevelopment of West Burke Mill site with NVDA assistance | Planning Commission | 2019 |