

2019

Granville Town Plan

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Prepared by the Granville Planning Commission

With assistance from Two Rivers-Ottawquechee Regional Commission

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Introduction

Granville is a small rural community on the eastern border of Addison County in central Vermont. The character of Granville, its people and landscape, has been created over the years through the individual and collective decisions of its citizens and public officials. The attractiveness and well-being of the community is determined, in part, by the ability of the town to plan for its needs and to find methods to put planning goals into action. Residents of Granville are encouraged to participate in the planning process through attendance of the Planning Commission's regular monthly meetings, as well as by voicing their opinions at the public hearings held in the Plan's adoption process. Citizen participation in town planning is vital to producing a Town Plan that reflects and can realize the community's visions and values.

Five long-term goals for Granville, broadly described below, are sustainability, affordability, preservation, community, and connectivity.

Sustainability primarily refers to environmental issues such as energy conservation, minimization of air and water pollution, and preservation of wildlife and natural ecosystems. But it also refers to fostering economic vitality, improvement of living standards, and a stable or slowly growing population. Thus, sustainability means supporting human activity in Granville, while ensuring that it is in harmony with the environment and not destructive of it.

Affordability has become a concern in Vermont due to increases in housing prices and taxes over the last several decades. Fostering Granville's affordability entails keeping the municipal tax burden to a minimum. To that end, both the initial costs and ongoing maintenance costs of all proposals should be analyzed to ensure that residency in Granville remains affordable.

Preservation is critical for towns like Granville that have long histories and aging infrastructure both public and private. Preservation of Granville's working farms and forests - as well as environmental features such as unpolluted air, water, and even the night sky - will maintain Granville's unique character. In addition, because an increasing share of the local economy is tied to tourism, such preservation can contribute to Granville's economic viability.

Community is embodied in the multifarious interactions of Granville's residents. Despite individual diversity, Granville is our home town, and this shared sense of place is the firm basis for a wide range of beneficial cooperative activity.

Connectivity, the ability to communicate via up to date technology, will benefit Granville residents by enabling enhanced participation in the world beyond town borders, as well as improving communication amongst the residents of the community and the town's governing bodies.

This Town Plan, while describing existing conditions, also focuses on probable trends and policy development which, in combination, represent a vision for Granville's future. One thing is certain: the community will change. In accordance with the Vermont Planning and Development Act [24 V.S.A., Chapter 117], the Town Plan provides the opportunity for citizens and town officials to direct this change together, consistent with their desires. Through its adoption, the town accepts the principles and policies set forth in this Plan as in the public interest and as a guide for the future growth and development decisions affecting Granville.

As of 2015, the life of a town plan was extended from five to eight years, after which period it must be revisited and readopted to be kept relevant. Thus, unless amended in the interim, this 2019 plan will be in effect until 2027. The Planning Commission is responsible for the maintenance and amendment of the plan. Within the eight years following adoption of the plan, the Planning Commission must evaluate the plan in light of new conditions and needs. The formal process for re-adoption of an updated plan, pursuant to 24 V.S.A. sections 4384, 4385, and 4387, requires a public hearing held by the Planning Commission, followed by a public hearing held by the

Selectboard prior to adoption. Furthermore, at any time following adoption of the plan, the Select Board may request the Regional Planning Commission to approve the Plan or amendments to the plan. Approval of the plan by the Regional Commission provides enhanced legal standing for the Plan in related State proceedings.

I. Demographics

According to the 2010 US Census, Granville's population numbered 298. Compared to a population of 303 in 2000, the result is only a 1.6% decrease. Granville's population change over time is reflective of many communities in Vermont. During the mid to late 1800's, many Vermont towns reached their peak population. This was followed by a mass exodus of citizens moving south and west, causing a steep drop that finally stopped during the 1970's. Throughout the 1980's and up to 2000, most communities experienced a steady influx of new residents. Between 2000 and 2010, however, gains became losses in many communities, while other communities, such as Granville, saw their population levels stabilize.

In general, the age of Granville's population is similar to that of Vermont as a whole, with over half (61%) of the population over the age of 35. Also mirroring statewide data, Granville has an elderly population with 16% of the population over 65 years of age, which is less than Addison County (20%) and marginally higher than the State of Vermont (14.6%). Vermont also has the lowest birth rate in the nation (10.4 births per 1,000 of population, compared with 14.2 for the U.S) which, when coupled with immigration of residents over 55, tends to result in an aging population that will need services that are not available in Granville. The need for elderly housing will most likely increase, and information about elderly housing can be found in section IV. Housing.

According to the 2016 American Community Survey (ACS), the diversity of Granville's population in terms of *ancestry* is listed as follows:

31% American; 1.3% Dutch; 15.5% English; 13.8% French (except Basque); 5.4% French Canadian; 10.1% German; 6.4% Irish; 6.7% Italian; 3.7% Norwegian; 8.4% Polish; 0.3% Portuguese; 0.7% Russian; 5.1% Scottish; 1.3% Swedish.

Goals, Policies, Recommendations:

Goals

1. Encourage an increase in population while keeping in mind that although an increase in population can ease tax burdens, too large an increase can also adversely affect the uncrowded and rural nature of the town that has been an attraction for many Granville residents.
2. Encourage growth but *not* to an extent that would exceed the town's ability to provide services.
3. Increasing diversity of age and ancestry of future residents by various means, e.g., encouraging affordable housing, strengthening community services.

Policies

1. Adherence to this Plan's Land Use policies in order to carefully monitor growth and ensure benefits for all.

Recommendations

1. Selectboard efforts to keep the municipal tax burden to a minimum will foster affordability and can contribute to the goal of diversifying Granville's population.

II. Economic Conditions

Granville's original residents were homesteaders carving out places for sustenance on the hillsides. Where there was more arable land on the valley floor larger farms sprung up. Most of the local employment opportunities depended on the abundance of timber, which provided logs for export, as well as for the mills producing shingles, clapboards, tool handles, chair stock, and wooden bowls. Locals also worked in the three inns and two general stores. There were ten schools, a town clerk, a post office and a blacksmith shop. Needless to say, since that era there have been tremendous changes in Granville's economic conditions.

According to the 2016 ACS, there were 202 Granville residents in the labor force, though an estimated 29 such residents were unemployed. According to this survey, sales and office occupations (30.6%) make up the highest percentage of occupations, followed by management, business, science and arts occupations (20.8%), service occupations (20.2%), natural resources, construction, and maintenance occupations (19.1%), and production, transportation and material moving operations (9.2%). In this survey, the majority (85%) of Granville's workers reported that they commute to work, while 1.7% of residents indicated that they walk to work, and another 12.2% work from home. Of those residents who commute to work, mean travel time was 31.1 minutes, which implies that the majority of these residents work in nearby communities like Rochester, Randolph, Middlebury, Waitsfield and Warren, with a smaller percentage commuting to farther locations such as Burlington or Rutland.

Granville strives to have its local economy develop such that it can support a varied population, without putting undue strain on municipal services or negatively impacting its unique rural character and the natural environment. Toward that end, to foster the vitality of Granville's village centers, the Town sought and received Village Center Designation through the Vermont Downtown Program. Granville has two designated Village Centers - Upper and Lower Granville - through this program. Village Center designation was created by the Vermont legislature to recognize and encourage local efforts to revitalize Vermont's traditional village centers. The focus of this program is on supporting commercial activity in the centers of Vermont's villages.

The downtown designation program supports local revitalization efforts across the state by providing technical assistance and state funding to help designated municipalities build strong communities. Once designated, the community will be eligible for the following benefits:

Benefits available through participation in the Village Designation Program include:

- Aid in funding building rehabilitation, and code improvements such as ADA modifications;
- Priority consideration for various grants administered through the State's Municipal Planning Grant Program, VTrans, VT ANR, and the Community Development Block Grant Program (CDBG);
- Various tax credits, including technology tax credits to assist in the funding of data and network installations or improvements;
- Priority consideration by State Building and General Services for leasing or constructing buildings;
- Neighborhood development area eligibility which provides exemptions for certain land use regulations and reduced state permit fees.

For a complete list of available benefits see the VT Agency of Commerce and Community Development website.

However, it should be noted that while there are opportunities for development within the Village Center Areas, Granville's topography and flood hazard areas do impose limits on such development.

A 2012 study by the Urban Land Institute, an international nonprofit research and education organization, indicated that on a national level, businesses are making their location decisions based substantially on a sense of place. Similarly, young adults have indicated that their primary motivation for moving to Vermont is the lifestyle associated with the working landscape.

The "working landscape" concept generally refers to land actively used in productive agriculture and forestry. Yet to many Vermonters, the working landscape also refers to additional public values it provides, including aesthetics, and contributions to the tourism economy. These factors comprise the working landscape's central role in building a common sense of place and a Vermont quality of life. These values are all hard to quantify but appear vital to the personal identity of Vermonters.

This definition of what Vermonters mean when they speak of the 'working landscape' comes from research conducted by the Council for the Future of Vermont, published in 2009 in "Imagining Vermont: Values and Vision for the Future." The term points to the unique environmental history of the state, in which agriculture - particularly sheep, dairy, haying, vegetable and orchard farming - as well as timber, forest products, and maple syrup production have sustained the extractive economy and shaped the natural landscape. Our particular assemblage of pasture, cropped land, hayfields and mixed forests are a product of these activities. Farming and forestry practices helped shape a distinctive settlement pattern of center villages, mill villages, station villages and open lands.

As demands on land for development continue, property values rise causing our young people to leave the state to make their lives elsewhere and many worry that the way of life that has formed Vermont's landscape and culture is threatened.

It is this concern that generates the need for innovative ways to encourage agriculture and forestry that will also promote tourism linked to these practices, both of which will sustain our local economy. In addition, encouraging harmonious development of our Village Centers is a means of attracting new businesses and residents, and can make Granville a place where our young people choose to remain to establish their lives.

Goals, Policies, Recommendations

Goals

1. Ensure that any economic development in Granville protects the environment, and preserves and fosters the "working landscape" of Granville.
2. Support business opportunities that are compatible with the quality of life and values of Granville's citizens.
3. Encourage and facilitate the rejuvenation of Granville's Village Centers. This rejuvenation can include encouraging development that will provide clean, small-scale industry, for example, multi-use office/retail/housing space.
4. Support the development of value-added farm and forestry products in Granville.
5. Support the completion of the Corner School Resource Center that can provide high-speed internet and other technology needed by home-based businesses.

Policies

1. The Town shall continue to participate in the Village Designation program; and shall renew Granville's two village center designations before they expire in July 2022.

Recommendations

1. Selectboard communication and collaboration with individuals in the private sector whose properties are sited in locations key to Village Center improvement. For example, seek to develop a space within the Village Center available to local farmers and craftsmen for selling their goods.

III. Physical Conditions and Natural Resources

Granville is a rural community of 33,600 acres (51.5 sq. mi.) with the Northfield Mountains rising to the east and the main crest of the Green Mountains rising to the west. Granville is bounded on the north by the town of Warren and a part of Roxbury; on the east by Braintree; on the south by Hancock; on the west by Ripton and a small part of Lincoln.

The vast majority of Granville is forested and, relative to its total acreage, there is a very limited amount of prime agricultural land. Granville comprises 14,446.6 acres of National Forest, approximately 1,171 acres of State Forest and Parks land, and 17,982.4 acres in private ownership including timber companies such as L.W. Webster, Inc.; Montgomery Timber Company, LLC; and Green Crow Corp. The Green Mountain National Forest comprises approximately 46% of Granville. Activities in and policies concerning the National Forest have a significant and immediate economic, social, and recreational impact on local communities such as Granville. The Green Mountain National Forest Plan, adopted in April 2006, has prescribed activities and policies for the subsequent 15 years and includes significant logging of the forest.

Air Quality

Air quality is an important feature in our overall quality of life. Clean air contributes to our health and to clear skies and extended views. Granville is heavily forested with limited development, but air quality can be affected by vehicle emissions, heating sources, backyard burning, commercial activities, and dust from construction projects.

Water Resources

Surface Water

The upper reaches of the White River flow through the center of Granville for more than eight miles. In addition, headwaters of the Mad River are located in the Granville Gulf Reservation, and these waters flow into the Winooski River and Lake Champlain. The White River is one of the Town's most important natural features, affecting economic, residential, and scenic values. Unfortunately, the river, river-bed and river-bank conditions have deteriorated over the past several decades. River gravel has accumulated, filling pools, and causing flooding over Route 100, raising and widening the stream channel, and warming the water to the point where native fish habitat has declined. The flood of June 1998 further damaged the river channel and adjacent lands, but it did serve to focus attention of residents and state and federal agencies on the need for river restoration.

The state's 2002 White River Basin Plan describes water quality and water resource problems in the basin and recommends strategies for remediation of these problems. The principle purpose of the plan is to improve water quality by guiding the Agency of Natural Resources in its own work and in collaborative projects with the public as well as other State and federal agencies.

Presently, overall water quality in the surface waters of the White River Basin is exceptionally good. In addition, the White River main stem is unrestricted by dams, making the White River the longest free flowing large river in

the State. The water quality and its free-flowing nature sustain high quality recreational opportunities as well as habitat for plants and animals. In addition, the water quality supports the use of surface waters for irrigation and drinking water. Although water quality is exceptionally good overall, impacts to water quality and the uses it supports do exist. Sedimentation is the greatest source of impact to uses, followed by thermal modification, nutrients, turbidity, and pathogens. Streambank destabilization and loss of riparian buffers are the main causes of sedimentation, thermal modification, and turbidity. Numerous land uses contribute nutrients and pathogens.

The concerns and strategies have been developed through public input, including work completed by the White River Partnership, a local watershed group. They are as follows:

- Stream channel instability and streambank erosion
- Lack of awareness of water quality problems
- Extent and quality of public access to recreational opportunities on the water
- Impacts to fisheries

Basin planning is one tool for addressing water quality and water resource problems. Its effectiveness depends on the willingness of the local community, landowners, and State and federal entities to undertake projects that will enhance or protect water quality. The potential successes are based on the assumption that if given the means, people will work together to resolve problems that they have identified. The planning process facilitates this collaborative effort.

In 1998 Granville became an active member of the White River Partnership, a citizen and community-based organization dedicated to the health of the river and its relation to the cultural and economic health of the region. The goal was to encourage stream bank vegetation, reduce future erosion of agricultural lands, and restore historic use of the river for fishing, swimming, canoeing and other recreational pursuits. A number of projects were completed with the financial and professional assistance of the Partnership, U.S. Forest Service, and state agencies. Stream bank stabilization, stream channel reconfiguration, riparian tree plantings and fish habitat improvements were accomplished upstream of the Upper Village on Alder Meadow Brook, and in the main branch downstream from the Upper Village to the Bagley Bridge on VT Route 100. Unfortunately, much of this work was undone by the severe flooding caused by Tropical Storm Irene in 2011.

Granville, as a member of the White River Partnership, continues to address water quality and water resource problems in accordance with the policies and actions set forth in the 2002 White River Basin Plan.

Ground Water

Along with surface waters (rivers, streams, ponds, and lakes), water resources also include aquifers (bodies of fresh water beneath the ground). Drilled wells and springs supply most Granville households and businesses. However, as the process of mapping groundwater is prohibitively complicated and costly, Granville has no mapped groundwater information.

The health of Granville's surface waters is essential to maintaining quality groundwater, as well as an important element for outdoor recreation and natural beauty. Vermont law declares that the lakes and ponds of the state and the lands lying underneath them are held in trust by the state for the benefit of all Vermonters. The state, as trustee, cannot sell or give away these public resources to individuals or corporations for purely private purposes. A permitting program for large groundwater withdrawals was implemented by the state in 2011. Those seeking permits will have to show that their withdrawals will not have an adverse impact on water resources. They must also show that their withdrawals will be consistent with local and Regional Plans.

Wetlands

There are approximately 139 acres of mapped wetlands in Granville. The Vermont Water Resources Board estimates that wetlands comprise less than 5 percent of the surface area of Vermont, but because wetlands are

ecologically fragile areas that have a direct bearing on the quality and quantity of other water resources, Vermont adopted legislation for the protection and management of wetlands in 1986 [10 V.S.A., Chapter 37].

In addition to being Vermont's most productive ecosystems, wetlands serve a wide variety of functions beneficial to the health, safety and welfare of the general public, including the following:

1. Retaining storm water run-off, reducing flood peaks and thereby reducing flooding;
2. Improving surface water quality through storage of organic materials, chemical decomposition and filtration of sediments and other matter from surface water;
3. Providing spawning, feeding and general habitat for fish;
4. Providing habitat for a wide diversity of wildlife and rare, threatened or endangered plants;
5. Contributing to the open space character and the overall beauty of the rural landscape.

For Granville, as well as the State, the largest, most significant wetlands have been mapped and are included as part of the National Wetlands Inventory (NWI) prepared by the U.S. Fish and Wildlife Service. These wetlands have been delineated on USGS topographic maps, and by reference are made a part of this Plan (see Map 5, Natural Resources). Other smaller wetlands often do not show on these maps, but are significant nonetheless and require a field determination and delineation by an Agency of Natural Resources biologist for most activities that involve state permits.

Wildlife

Granville's fields, forests, wetlands and streams are home to a diverse and relatively healthy wildlife population that includes bear, beaver, bobcat, moose, deer, otter, geese, ducks and mink, to name only a few. There are, however, some areas in Granville which provide critical habitat that shall remain intact. These areas include wetlands, deer wintering areas, bear mast stands, and edges (the transition zone between two cover types, such as field and forest). Granville has 2,500 acres of deer wintering areas, much of which is part of the Green Mountain National Forest.

Wildlife management requires management of human activities around animals as much as management of animals around human activities. Managing for specific species is not as desirable as managing for the entire ecosystem supporting the species. Most important, when considering development and its impact on wildlife, is the concept of habitat fragmentation. Albert Todd, the Environmental Protection Agency liaison, in the February 1999 issue of *Journal of Forestry*, summed up the impact of forest fragmentation:

"Forest fragmentation affects water quality and quantity, fish and wildlife populations, and the biological health and diversity of the forest itself. When many small habitat losses occur over time, the combined effect may be as dramatic as one large loss. Forest fragmentation can disrupt animal travel corridors, increase flooding, promote the invasion of exotic vegetation, expose forest interiors, and create conflicts between people and wildlife. Habitat loss reduces the number of many wildlife species and totally eliminates others."

Subsequently, in 2016, the State passed Act 171 - Land Use Planning to Address Forest Fragmentation - which prescribes measures and specific language for prevention of such habitat loss to be included in Town Plans. These measures have been incorporated into the Land Use section of this Plan.

Plant Communities

There is a broad range of plant communities in Granville's older forests, early successional forests, open fields, and valley floors. The diversity of these plant communities and their complementary wildlife constitute a healthy, thriving ecosystem.

Successional hardwood forests are the most dominant type within Granville and consist of mostly ash, beech, birch, and maple canopy. The current existence of late successional forests and habitat is nearly non-existent in the state, although trends lean toward an increase of this habitat. The understory contains a variety of hemlock, spruce, native dogwood and viburnum shrubs, and a variety of shade loving perennials such as ferns and solomon seal. Species of Trillium, Trout Lily, and Tiarella grow along the forest floors and the slopes of the Granville Gulf are covered in edible wild ramps in springtime.

In the somewhat cleared spaces along the forest edges, purple flowering raspberry, blackberry, and elderberry flourish. The meadows consist of a variety of wildflowers and grasses including goldenrod, eupatorium (Joe-pye Weed), queen Anne's lace, red clover, yarrow, chicory, and milkweed.

The effects of unmanaged development can have a negative impact on plant communities, which in turn will harm the overall ecosystem in the area affected. Good management practices, such as requiring developers to locate their projects in less sensitive areas, maintain buffer areas and protect against silt runoff from excavating, are a few of the ways that these communities can be protected. These practices are more fully addressed in the Land Use Section of the Plan.

Invasive species have become a serious problem in Vermont. Invasive species are defined as non-native species introduced into the ecosystem (by a variety of human activities) that spread to such an extent that they displace native species, causing biodiversity to suffer and throwing entire ecosystems out of alignment. Both Federal and State governments have guidelines in place for handling invasive species, and there are resources available to interested parties through the University of Vermont. While the list of invasive species in Vermont is extensive, the most common invasive plants in Granville seem to be Wild Chervil and Japanese Knotweed. Poisonous Parsnip is extremely prevalent along route 125 in Middlebury and may make its way east to the Granville/Hancock area in the near future.

Mineral Resources

The use and management of a town's earth and mineral resources are matters of public good. When called for, restoration of mineral extraction sites needs to be done to preserve the environmental health and aesthetics of the area. At present, the only earth and mineral resource site in town is the gravel extraction operation at Granville Mfg. Bowl Mill in Granville's Upper Village Center.

Goals, Policies, Recommendations

Goals

1. Preserve and protect Granville's natural environment, both for its own sake and for its contribution to the Town's economic well-being by:
 - a) maintaining and improving surface and ground water quality;
 - b) maintaining or enhancing the natural diversity and population of wildlife, including natural predators in proper balance;
 - c) restoring stable populations of endangered or threatened wildlife;
 - d) maintaining or improving the diversity and population native of plant species while also pursuing methods of eradicating non-native invasive plant species;
 - e) preserving the natural state of streams by protecting adjacent wetlands and maintaining existing stream bank and buffer vegetation.
2. Maintain healthy air quality.

3. Encourage the conservation, wise use and management of the town's agricultural and forestry resources at scale appropriate to Granville while maintaining environmental integrity and protecting its unique and fragile natural features.
4. Protect the Region's rural agricultural character, scenic landscape, and recreational resources.
5. Support extraction and processing of mineral resources only where such activities are appropriately managed and the public interest is clearly benefited.
6. Reduce the population and spread of non-native invasive plants using organic management practices.
7. Protect the town's groundwater, animal and plant communities, and residents from pollutants by restricting the use of products such as Roundup.
8. To employ a variety of available tools, regulatory and/or non-regulatory, to achieve the above goals.

Policies

1. Granville shall support state and federal programs directed at the reduction of air pollution and encourage enforcement of air-quality standards to prevent deterioration of the region's air quality.
2. Continued participation in the White River Partnership in coordination with the state's White River Basin Plan.
3. It is the policy of the Town to adhere to state wetlands regulations.
4. Adherence to Land Use measures herein that ensure that the use of surface and/or groundwater resources by new development protects the public right to adequate quality and quantity of the resource.
5. Support of long-term protection of major habitats through conservation easements, land purchases, leases and other incentives.
6. Adherence to Land Use measures herein that preserve continuous areas of wildlife habitat and prevent fragmentation of such areas and/or maintain viable connections/corridors between such areas.
7. Development that would harm rare, threatened or endangered species and/or habitat is prohibited.
8. Protection of deer wintering areas from development and other uses that adversely impact them.
9. Existing and proposed mineral extraction and processing facilities shall be planned, constructed, and managed so as to:
 - a) not adversely impact existing or planned uses within the vicinity of the project site;
 - b) not significantly interfere with the function and safety of existing road systems serving the project site;
 - c) minimize any adverse effects on water quality, fish and wildlife habitats, view-sheds and adjacent land uses;
 - d) minimize noise impacts on adjacent uses including residential areas;
 - e) reclaim and re-vegetate sites following extraction.
10. It is the policy of the town to prohibit the use, *in Town maintenance programs*, of persistent herbicides (e.g., glyphosate), pesticides, and other chemicals that are health hazards to soil, water, and animal and plant communities.

IV. Transportation

When compared to other nearby communities, Granville has a small system of roads. For example, Rochester and Braintree both have over 40 miles of roads, respectively. A very small percentage of Granville's roads are Class 2. The great majority of Granville's roads are Class 3. Class 3 highways are town roads that are maintained in a manner enabling them to be driven under normal conditions in all seasons by a standard car. There are 11.37 miles of State highway, (VT Route 100, a nationally designated Scenic Byway; and VT Route 12A) in Granville; 0.36 miles of Class 2 roads; 17.20 miles of Class 3 roads; 12.87 miles of Class 4 roads; and 5.32 miles of Legal Trails.

Class 4 highways are generally in poor condition and, in the past, have not been maintained on a regularly scheduled basis. However, under the Municipal Roads General Permit (MRGP), towns are now required to maintain culverts and bridges on all roads including class 4 roads to protect and improve water quality. Some state aid is available for such projects. While not suited for regular traffic, these roads do represent a valuable asset for the town from a recreation standpoint. Such town-owned corridors will help ensure that there will continue to be a place to enjoy snowmobiling, ATV, cross country skiing, walking, hunting, horseback riding and other outdoor recreation. Furthermore, subsequent to the 2006 Act 178 (the state law governing Ancient Roads), the town examined all ancient road information to determine which roads were considered valuable. Thirteen class 4 roads and legal trails, with a combined mileage of 7.63 miles, were added to Granville's official town highway system.

Due to the small number of roads Granville has to maintain, the community has historically utilized the services of private contractors to provide maintenance and upkeep. The Select Board annually appoints a road commissioner who arranges and oversees all Class 2 and 3 road maintenance activities. Two of the adjoining towns, Warren and Hancock, maintain small sections of Granville's Class 2 and 3 roads that connect to their own roads. All other road maintenance work is contracted out to private firms; and all Granville roads (and trails) are managed based on their classification as called for in the Town Highway Ordinance.

Apart from education costs, public roads have been and will continue to be Granville's largest town expense. Transportation funding sources comprise numerous combinations of the local tax base, state and federal gas tax receipts, state and federal allocations and registration fees. The most significant source of funds for road management is the federal government, which funds are administered by the state's Agency of Transportation. The federal and state governments pay a percentage of project costs and the community pays the remainder. This funding applies only to Class 1-3 roads. Maintenance of Class 4 roads is funded exclusively by the community. The Two Rivers-Ottawaquechee Regional Commission has compared programs throughout the region and recommends a program of early intervention using preventative maintenance because such a program has proven to be 75-85% less costly than larger reconstruction work after significant deterioration has occurred.

Access management is an important process to provide reasonable accessibility to adjacent land uses while maintaining a safe and efficient flow of traffic. The Town recognizes the value of access management and can implement access management strategies through its planning and public works related ordinances and policies. The following are some of these strategies for all public and private transportation and development projects impacting local and state public roads as well as private roads:

- Utilize State of Vermont design standards for all temporary and permanent access, to include emphasis on drainage, sight distance, and access for emergency services;
- Encourage use of shared driveways and/or permitting access that may result in a future shared driveway;
- Require the review of access for existing development whenever a change of use, or other application process is brought before the Town;
- Encourage commercial properties to use existing development nodes in order to preserve or create road segments with few accesses, unless additional replacement access better meets access management goals;
- When practical, approve subdivisions with private and public road designs that allow shared access with other adjacent subdivisions and/or have the private rights-of-way reserved so an access may be built to connect to existing and future development;

- Encourage permanent landscaping and roadside enhancements to visually define access points and contribute to the roadway's aesthetic character;
- Use sight-distance standards based on the actual travel speeds and not the posted speed limits. If no such data exists or is not current, then the Town will work with the Regional Planning Commission to obtain the appropriate data.

Many residents bike or walk on town roads in Granville. The rural nature of most of Granville's roads makes bike and pedestrian travel reasonably safe. Route 100 is considered a prime location for cycling due to the scenic nature of the valley. But, in some areas travel along Route 100 is less safe due to higher traffic volume and speed and a lack of available shoulders. Additional recreational opportunities can be found using trails maintained by VAST and VASA.

Granville, like most Vermont towns, has limited public transportation. Stagecoach, Inc. is the nearest public transit provider. They provide regularly scheduled transportation to West Lebanon, NH and Montpelier, VT, as well as weekly transportation from Hancock to Randolph. Stagecoach does offer limited public transportation in the form of special requests for individuals who need transportation for medical reasons; and C&L Taxi service out of Warren is available daily on request.

Burlington International Airport (BTV/KBTV) is the major airport for Granville, 54 miles from town. The nearest airport to Granville is Rutland Southern Vermont Regional Airport (RUT/KRUT). This airport has domestic flights from Rutland, and is 45 miles from the center of Granville. Another accessible airport is Lebanon Municipal Airport (LEB/KLEB), which has domestic flights from West Lebanon, New Hampshire and is 51 miles from Granville. In addition, there is the nearby Warren-Sugarbush public use airport two miles east of Warren Village.

Amtrak rail transportation is available in Randolph. A small section of railroad - maintained by New England Central Railroad (NECR) which operates 394 miles of railroad between the Vermont/Quebec border and the Port of New London, CT - passes through the village of East Granville but does not have a station there.

Goals, Policies, Recommendations

Goals

1. To minimize transportation energy consumption by encouraging carpooling and other creative alternatives for sharing transportation resources.
2. To provide regular maintenance and upgrades to Town roads (Class 2 and 3 Highways) provided that the costs do not put an undue burden on the citizens of Granville, and to ensure that future development does not unnecessarily or unreasonably impact the public investment in Town and regional transportation systems or facilities, including highways, bikeways, trails, and rail.
3. To recognize the importance of balancing the need to have safe roadways with the desire to maintain appropriate widths and the health of existing vegetation in its role as a structural and aesthetic component of the roads.
4. To maintain a road system that is safe, efficient, meets the needs of residents, and complements the other goals and policies of this Plan.
5. To support local, regional, and statewide efforts to enhance public and private transportation systems that meet the needs of all population segments and not just those who use automobiles.

Policies

1. Prior to a final decision to proceed with a major capital transportation project, policy makers shall first analyze the project against reasonable alternatives and include public input. In examining the alternatives, investigation shall focus on the environmental, energy, social and investment costs and the extent to which such costs meet the goals and policies of this Plan.
2. Any new access, new construction, change of use, and any development of a land parcel that would impact Granville's road system shall be reviewed by the Town. Where such development requires improvements to Town highways, such costs shall be borne by the developer, in consultation with the Select Board, and the Select Board shall have sole power to change the classification of the road.
3. The Town shall seek public input in any decision to substantially change the maintenance level or surface treatment of any town road.
4. The Town, as written in V.S.A. Title 19 Section 310, does not maintain Class 4 Highways. Granville has adopted the following ordinance: "we may perform minimal maintenance/ improvement of bridges and drainage structures when necessary to avoid permanent or irreversible damage to public property, or to correct a decidedly unsafe situation." The policy of the Select Board is such that before the town would consider adopting a new road or upgrading an existing one, the abutting property owners shall be responsible for the cost of improving and/or building the road to Town specifications. Final decision regarding the nature of the improvement rests with the Select Board. *The town is currently reviewing this ordinance with the goal of updating it to be in compliance with the new Municipal Roads General Permit (MRGP) requirements.*
5. Given the interest in and benefits from biking, hiking, snowmobiling, cross-country skiing, and similar outdoor recreational activities, the Town shall, as an alternative to complete discontinuance of a highway, give full consideration to preserving Class 4 Highways (roads) for recreational use by downgrading their status to a legal trail and thus retaining the public's interest in them.
6. An integral scenic element of the rural countryside is the network of back roads comprising the town's highway system. These byways are both visually and economically important to the Town. If improvements are needed to accommodate increased traffic, the Town shall consider the relationship of the road to the surrounding features of the landscape.

Recommendations

1. Partner with neighboring towns whenever possible to expand existing public transportation options and/or create new ones.
2. Consider installation of electric vehicle charging station(s) at appropriate location(s) in Granville's Designated Village Centers.
3. The Selectboard should revise and update the Town's Highway Ordinance to help implement this Plan's expanded goals.

V. Utilities, Facilities, and Services

The Town of Granville does not currently have a Capital Improvement Program (CIP), also commonly referred to as a capital budget and program; instead, the Town accumulates anticipated capital funding through a process of seeking voter approval for Articles placed on the annual town meeting agenda. If approved, the tax rate for the coming year is set to sufficiently fund said articles, and are then collected via property taxes. These funds are then placed in a savings account until needed. Some major examples of expenses met by this capital funding process are: Highway Capital Investments, Municipal Investments (facilities), and Conservation Commission projects.

Town Government, Town Offices, and Town Hall

Granville is governed by an elected Selectboard with the assistance of an elected Town Clerk. Along with all other Vermont towns, Granville holds an annual Town Meeting at which officials are elected and/or appointed; budgets are reviewed; and other town business is attended to. The Selectboard meets once a month as do several other official town committees. All such meetings are held in compliance with Vermont's Open Meeting Law. Meeting schedules, agendas, and minutes of all town governance bodies are listed on the Town website. The Granville Town Hall and Town Clerk's Office are both located at 4157 VT Route 100. The Town Clerk's Office houses the town's document vault and other town document storage, such as tax maps, and files of the various departments of town governance and services, such as Listers, Constable, Road Commissioner, Cemetery Commission, Conservation Commission, Planning Commission and Selectboard. This building also currently includes a complete kitchen. Though the second floor of this building does not have handicap access, there is handicap access to the entire ground floor of this building including its bathrooms. The Town Hall and kitchen can be rented for non-Town events.

In 1999, the Town of Granville voted to acquire the land adjacent to this building. This acquisition enabled the town to provide increased parking, but only accommodates about a dozen cars and is inadequate for events such as Town Meetings when parking lot overflow necessitates parking on the shoulders of Route 100. In 2007, fifteen trees - donated by residents in memory of several past residents - were planted in that additional small field south of the building.

Town Garage

The Granville Town Garage, located on the west side of Route 100 in the Upper Village, houses the Town's three fire trucks and a first-responder vehicle, as well as an inventory of other fire-fighting equipment employed by the Granville Volunteer Fire Department. Though this metal 1-1/2 story building has a heating system, a phone line and a fire alarm system, it does not have water or sewer facilities, or a meeting room. The Town Garage property also provides storage space for a winter sand pile, culverts, and signs, all for use on town roads.

Post Office

Granville's Post Office, as of 2019, has been relocated to the former Town Clerk's Office at 4801 VT Route 100, adjacent to the Elmwood Cemetery. Post Office hours are as follows:

Lobby open 24 hours 7 days/week

Window with service provided 12 noon to 4 PM Monday through Friday; and Saturday 7:30 AM to 10:15 AM

Cemeteries

There are three currently maintained cemeteries in Granville - Elmwood Cemetery is located adjacent to the old Town Office on Route 100; North Hollow Cemetery is on Maston Hill Rd. near its intersection with North Hollow Road; South Hollow Cemetery is located on North Hollow Road near the north end of Old Stage Road.

Though the elected Cemetery Commissioners oversee formal cemetery matters, the town pays for maintenance, though some maintenance is done by volunteers. There are also numerous smaller historical cemeteries Granville.

Solid Waste Management and Recycling

Granville is a member of the White River Solid Waste Alliance at a cost of about \$3,300 per year. In accordance with Vermont statute, this Alliance manages solid waste generated within its seven member municipalities in an environmentally sound manner, and also offers an educational program regarding sound practices. Bi-monthly collection of waste and recycling at the Town Garage is provided by A.B.L.E Waste Management, Inc., for which the Town pays about \$6,240. Residents pay \$6 per 42 gal. bag of trash; recyclables are free. The Bethel/Royalton landfill is the designated disposal site for Granville and it accepts all solid waste, recyclables, demolition wastes, and household hazardous wastes. Residents and businesses are also free to transport their own trash or recyclables, or special wastes to other designated facilities.

Water Supply and Wastewater Treatment Facilities

The Town of Granville does not own or operate any public water supply or wastewater disposal systems. All residences and businesses are dependent on individual on-site water supply and disposal facilities, with the latter being strictly regulated by the State.

Education

Educational Facilities

The Town of Granville has no educational facilities. Granville voted to close its one room schoolhouse in 2009 and pay pre-kindergarten through 12th grade tuition for all Granville students. The families of most Granville students have chosen to educate their children in the Harwood Union Unified School District, Addison Central School District, and the White River Valley School District. East Granville families send their students to the public schools in the Towns of Braintree and/or Randolph.

Student Enrollment

Granville is part of the Granville-Hancock Unified District. The US Census Bureau's 2016 American Community Survey records 13 students enrolled in nursery/pre-school; 6 kindergarten students; 16 elementary school (grades 1-8) students; 5 high school (grades 9-12) students ; and 9 college or graduate school students, comprising a total school enrollment in Granville of 49.

Childcare

An inventory of registered childcare facilities reveals that Granville has a very limited amount of childcare available to the community. The State of Vermont has two classifications of childcare that are regulated, they are:

- Registered Family Child Care Home: A child care program approved only in the provider's residence, which is limited to a small number of children based on specific criteria.
- Licensed Program: A child care program providing care to children in any approved location. The number and ages of children served are based on available approved space and staffing qualifications, as well as play and learning equipment. A licensed program must be inspected by the Department of Labor and Industry's Fire Safety Inspectors and must obtain a Water and Wastewater Disposal Permit from the Agency of Environmental Conservation. A Licensed program is considered a public building under Vermont Law. Types of licensed programs include: early childhood programs, school-age care, family homes and non-recurring care programs.

There are currently no licensed or registered childcare facilities in Granville. Most residents currently arrange for care with relatives or take their children to childcare facilities beyond the borders of Granville to nearby towns like Randolph or Warren.

Adult Education

Granville has a fairly limited amount of adult education opportunities. Most adults take advantage of the opportunities that are available in Randolph as an alternative. These include:

Vermont Technical College (VTC) - Vermont Technical College is located in Randolph Center. VTC is part of the Vermont State College system and offers full and part time educational opportunities that range from computer technology, to agriculture to health services. Attendees may choose a two-year program that leads to an Associate's degree, a four-year program that leads to a bachelor's degree, or the college's one-year program that leads to a Practical Nursing certificate.

Randolph Technical Career Center (RTCC) – Located in Randolph village, the RTCC is part of Randolph Union High School. RTCC offers adult education courses that range from the traditional tech center focuses of mechanical and woodworking, to computer technology, small business management, bookkeeping as well as arts, crafts and languages. RTCC's adult education classes are open to all for a fee.

Other, more extensive, adult education opportunities are available in Rutland, Middlebury, and the Upper Valley as well.

Health care facilities: services, programs; community health initiatives

There are no town-based health care services in Granville; however, there is a family health clinic in Rochester associated with Gifford Medical Center in Randolph. Gifford Medical Center offers a wide range of services to serve most medical needs. In addition to Gifford, there are several smaller health facilities in Randolph. There are also hospitals in Middlebury, Rutland, Berlin, and Burlington; and in Lebanon, NH, there is the comprehensive Dartmouth-Hitchcock Medical Center.

Emergency medical services in Granville are provided by White River Valley Ambulance, Inc. (WRVA). WRVA is a not for profit emergency ambulance and rescue service composed of paid full-time, part-time and volunteer staff. The Town of Granville pays WRVA for this service; but it should be noted that individuals who use the ambulance service will be charged for such service despite the fees paid by the town.

Further emergency medical services are available from the Dartmouth-Hitchcock Advanced Response Team (DHART). DHART crews provide air medical transportation services to the communities of Northern New England. In addition, DHART flight crews respond to public safety agency requests for medical evacuation of trauma patients from scenes of injury, and will transport to the closest Trauma Center in the region's five states. Operating 24 hours a day and seven days a week, DHART Crews transport adult, pediatric and neonatal patients to *any* appropriate medical facility in New England.

Information regarding elder care, such as nursing homes and residential elder facilities, is provided in the Housing section of this plan.

Fire Protection and Emergency Services

Though dating from 1951, in 2009, the Granville Volunteer Fire Department chose to become incorporated as a non-profit corporation to be known as the Granville Volunteer Fire Department, Inc. This corporation was then contracted by the Town of Granville to provide services for emergencies such as structure fires, vehicle fires, wild-land fires, vehicle extrication, confined space rescue, and traffic and crowd control.

Currently the department operates four kinds of apparatus; a fire engine which carries hoses, ladders, hydrant attachments, water, etc., a tanker truck which carries additional water, a brush truck which carries wild-land fire equipment (rakes, shovels, hand pumps), brooms, traffic control equipment, etc., and a rescue vehicle which carries basic medical supplies, extrication equipment, etc. Services are provided to Granville (excluding East Granville) along with mutual aid to some of the surrounding towns.

A number of Fire Department members are fully trained Emergency Medical Technicians and comprise Granville's First Responders team.

Local Emergency Operations Plan

Granville has a Local Emergency Operations Plan (LEOP) which requires annual updating. However, as of 2019, the LEOP is to be renamed the Local Emergency Management Plan (LEMP) and has significant new standards. The old LEOP was primarily a call list of contacts to use during an emergency as well as information on shelters, vulnerable sites and which town officials might play which roles during a disaster. The LEMP (new template) is intended to put towns through an exercise of opening up an Emergency Operations Center (EOC) during disasters, and setting up a procedure for town officials on what to do if another Irene were to hit, for example. A town with an adopted LEMP then has access to some state's Emergency Relief Assistance Fund (ERAF) which could meet the 25% match required for any FEMA grants. This potentially lessens the amount of money Granville would have to put up.

Emergency Shelter

In 2005 a generator was purchased with grant funds to establish an emergency shelter in the Town Hall/Town Clerk's Office located in Lower Granville at 4157 VT Route 100. This facility includes two bathrooms, one of which is ADA compliant, and a kitchen. The purpose of this shelter is to provide housing for residents displaced by a wide scale emergency. It is also the potential location of a command center for management of emergency incidents such as natural disasters like flooding or ice storms, or incidents such as a structure fire or a HAZMAT situation. This shelter would also be available to the American Red Cross to set up temporary shelter for those who are displaced by such incidents until a longer term location can be found. Granville does not own any cots or bedding for the shelter, nor does Granville stock emergency foodstuffs. However, the town of Rochester, located 10 miles south of Granville, has designated their school building as a complete emergency shelter for the towns of Rochester, Hancock, and Granville.

Law Enforcement

The Vermont State Police, out of Royalton/Bethel barracks, provide primary law enforcement in Granville. In addition, town residents elect a Town Constable for a two year term whose duties are like those of any local police department, ranging from routine patrolling, responding to disturbances and motor vehicle accidents, and investigating small crimes, as well as frequently acting as animal control officer. The Constable is a paid town employee who works with the Selectboard and is a Vermont certified law enforcement officer. The Constable currently works 200 hours per year, averaging 4 - 5 hours per week. The Constable works closely with other area law enforcement agencies including Washington, Addison, and Windsor County Sheriff's offices, the Vermont State Police, and Randolph and Rochester law enforcement personnel. The Constable also works with the area schools to prevent drug and alcohol abuse. The Town may opt to elect a Second Constable.

Internet Service

Granville has DSL internet service availability provided by Consolidated Communications (formerly FairPoint). Granville is also a member of ECFiber, the East Central Vermont Telecommunications District. ECFiber is owned by its 24 member towns and offers tiers of high-speed internet service at 25/50/200/700 Mbps.

Cellular Communications

In 2010, a cell tower was installed on a private property on Butz Road, providing Granville its first cellular communications access. The most reliable server connected with this tower is AT&T. Though a cellular provider seeking to create a network of cell towers is exempt from local land use regulations under V.S.A Title 30, Chapter 5, §248a, due consideration of the municipal plan is prescribed as part of the permitting process of the Public Utility Commission (PUC) - formerly known as the Public Service Board. As this is not addressed directly in this

Plan's Goals and Policies, note the Recommendation below regarding drafting and adopting a Telecommunications Ordinance.

Recreation

The Vermont Statewide Comprehensive Outdoor Recreation Plan (SCORP) identifies outdoor recreation issues and seeks to encourage planning and development in the private sector so as not to significantly diminish the value and availability of outdoor recreational activities. Toward this end, Chapter 203 of Title 12 of the Vermont Statutes Annotated was enacted to "encourage owners to make their land and water available to the public for no consideration for recreational uses" by limiting landowner liability (12 VSA §5791). In addition, Vermont's constitution gives people the right to hunt and fish on unposted land, and landowner permissions allow for the connection of snowmobile, ATV, and mountain bike trail systems across private lands throughout the state.

A state sponsored plan for a single-track hiking and biking trail from Stowe to Killington, the Velomont Trail, is currently being evaluated. This trail would pass through Granville's portion of the Green Mountain National Forest and could offer recreational and economic benefits to the town.

The Granville Conservation Commission and the Granville Parks & Recreation Committee have furthered the goal of enhancing outdoor recreation opportunities as described below.

Granville Commons and Freeman's Launch

Subsequent to Tropical Storm Irene and the resultant FEMA buyout of sites along Route 100, Granville's Conservation Commission undertook the creation of Granville Commons and Freeman's Launch. Tree plantings, bluebird houses, a community garden, picnic tables, benches, and parking space offer enjoyment to residents and travelers alike.

Granville Parks & Recreation Committee

In its inaugural year of 2017, the Parks and Recreation Committee worked on trail maintenance and restoration, as well as creation of some new trails. The committee's goal is improving recreation opportunities in Granville, including guided walks of these trails and "ancient roads".

Goals, Policies, Recommendations

Goals

1. To keep energy efficiency as a priority with regard to upgrades to community facilities, providing that the payback of the more efficient upgrade is within a reasonable timeline and won't unduly burden the taxpayer.
2. To maximize the potential of Town's facilities, including the town's green spaces, to foster a sense of community by enhancing venues for events, recreation, and other activities.
3. To maintain Granville's historically significant buildings, such as the Corner School and the Town Hall.
4. To ensure Granville provides safe, secure and high quality educational options for all students at the most equitable cost to the Town's taxpayers.
5. To encourage the creation of safe and affordable childcare facilities that meet the needs of residents in Granville.
6. To support continued adult education.

Policies

1. Town buildings should be maintained on a schedule in order to reduce the need for emergency repairs, which are not usually budgeted for and can be more expensive than prevention.
2. Any development that would adversely affect the historical nature of the town's facilities is discouraged.
3. The Town shall participate in any Public Utility Commission proceeding concerning construction of telecommunication facilities and will base its position on the town's future Telecommunications Ordinance per Recommendation 4.
4. The Town shall annually update its Local Emergency Management Plan (formerly known as Local Emergency Operation Plan) by the May 1 deadline.
5. Discourage development in the private sector that would significantly diminish the value and availability of outdoor recreational activities.

Recommendations

1. We encourage the Selectboard to explore options for funding rehabilitation of the second floor of the Town Hall.
2. As Vermont statute requires a town to "ensure the availability of safe and affordable childcare and integrate child care issues into the planning process, including childcare financing, infrastructure, business assistance for child care providers, and childcare workforce development," the Regional Commission has suggested a possible approach for a town as small as Granville, i.e., "providing a tax incentive for one childcare business in town or working with neighboring towns on increasing the number of childcare units." In addition, Granville should work with surrounding towns to increase the availability for work force development training for the region's childcare employees.
3. We encourage the Selectboard to support however possible the Corner School Resource Center project.
4. We recommend the town draft and adopt a telecommunications ordinance as soon as possible.

VI. Energy

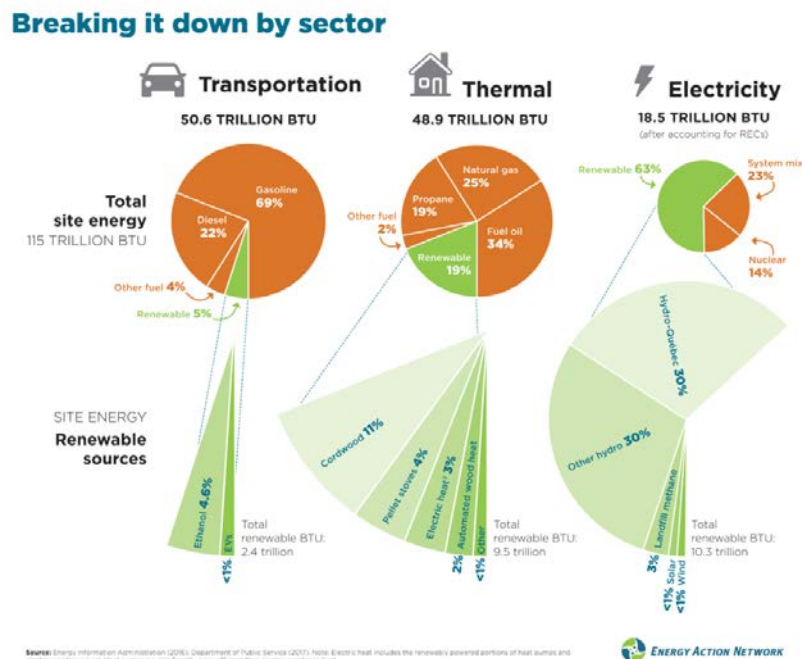
As it is clear that consumption of fossil fuels is detrimental to the entire planet, changes need to be made in energy production and consumption. Granville, like most other towns in Vermont, depends primarily on fossil fuels for heating and transportation. Fuel oil and liquid propane are frequently supplemented by wood for heating; and though a small percentage of people now drive hybrid or electric vehicles, transportation is generally gasoline-powered.

In 2011, the State of Vermont released a revised Comprehensive Energy Plan (CEP) that sets the goal for statewide transition to 90% renewable energy by 2050. The 2016 CEP expanded on the statutory goal of 25% renewable by 2025 (10 V.S.A. Section 580(a)) to establish the following goals:

- Reduce total energy consumption per capita by 15% by 2025, and by more than one third by 2050.
- Meet 25% of the remaining energy need from renewable sources by 2025, 50% by 2035, and 90% by 2050.
- Three end-use sector goals for 2025: 10% renewable transportation, 30% renewable buildings, and 67% renewable electric power.

Data compiled by the Energy Action Network illustrates that in 2018, while Vermont's electricity was 63% renewable, the electric sector only makes up 15% of Vermont's total energy use. The transportation and thermal

(heating) sectors combined make up 86% of Vermont's energy use and are only 5% and 19% renewable, respectively.



Green Mountain Power (GMP) is Granville's sole electric utility company. According to GMP 2018 estimates, their power supply resource profile (after Renewable Energy Credits are processed), reveals that 60.6% of GMP power is supplied from hydro resources, 27.9% from nuclear resources, 1.7% from solar and 9.8% from fossil fuels.

According to GMP, in 2018, Granville's residential electricity consumption totaled 1,414,692 kWh with residential users consuming 1,212,493 kWh and commercial and industrial users consuming 202,199 kWh.

Given Granville's relatively stable population, energy consumption is likely to remain stable at current levels. However, reducing fossil fuel consumption - directly for heating, indirectly for electricity usage, and/or for transportation - is a critical challenge.

Additional information about Granville energy statistics is available via the Two Rivers-Ottawaquechee Regional Commission's Granville web page (www.trorc.org/towns/granville/) and the Vt. Energy Dashboard (www.vtenergydashboard.org).

Conservation of energy by reduced usage is a key approach to reducing fossil fuel consumption. It is the policy of the Town of Granville to work toward municipal, residential and commercial conservation of energy. All Granville residents should be aware of wasteful energy behaviors and strive to change them to more conservative ones. A few examples are: turning off lights when you leave a room; using a programmable thermostat; air drying laundry. There are also a number of ways to enhance energy efficiency, such as: insulating with high R-value (or heat flow resistance) material; using high efficiency windows; installing energy efficient appliances. The Button Up Vermont program is a statewide effort aimed at reducing energy needed for heating and cooling by offering an assortment of affordable weatherization techniques, services and products for existing homes. Capstone Community Action is another statewide organization offering such affordable measures. While such energy savers can be retrofitted to existing homes, they are also important to incorporate in any new construction, as is energy efficient siting of new construction. The Town of Granville should encourage new construction to employ passive solar, net zero, and other energy-saving building practices. To reduce greenhouse gas emissions from

heating fuels, the municipality, homeowners and businesses should be encouraged to weatherize buildings and switch heating sources from fuel oil furnaces to advanced wood heating systems or cold climate heat pumps. The illustration by Energy Action Network below describes how a homeowner could approach zero greenhouse gas emissions.

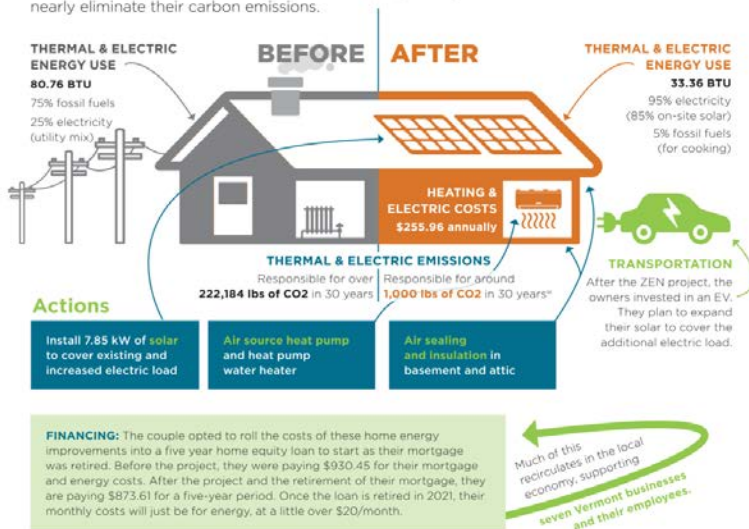
New residential development in the State of Vermont is required to comply with Vermont Residential Building Energy Standards (RBES). Commercial development is subject to similar code regulations. Some examples of the types of development the RBES applies to include:

- Detached one- and two-family dwellings;
- Multi-family and other residential buildings three stories or fewer in height;
- Additions, alterations, renovations and repairs;
- Factory-built modular homes (not including mobile homes).

In order to comply with the RBES, a home, as built, must meet all of the Basic Requirements and the Performance Requirements for one of several possible compliance methods. If the home meets the technical requirements of the RBES, a Vermont Residential Building Energy Standards Certificate must be completed, filed with the Town Clerk and posted in the home. If a home required by law to meet the RBES does not comply, a homeowner may seek damages in court against the builder.

How Vermonters benefit: a case study

Let's take a look at a real 1950 ranch house in Jericho, Vermont. The homeowners, one recently retired from the Vermont Air National Guard and one a bookkeeper at a local school district, recently completed a Zero Energy Now (ZEN) project to get their home off fossil fuels and nearly eliminate their carbon emissions.



Sources: Zero Energy Now (ZEN), Building Performance Professionals Association. Note: The ZEN project only included thermal and electric energy projects, so all cost and emissions figures are only related to those two sectors. Emissions extrapolated by E&A based on energy use post-ZEN project.



It is the policy of the Town of Granville to support patterns and densities of land use likely to result in the conservation of energy. Some recommended measures to reduce gasoline consumption are: concentrating development in village centers, encouraging local business and job development, encouraging complete high-speed internet and cellular coverage, and developing alternative/public transportation strategies. These measures may be more practical for towns larger and less rural than Granville. What is more practical for residents of our community is car-pooling where possible, foregoing recreational driving, driving fuel efficient, hybrids and electric vehicles when possible, and reducing necessary personal car travel by consolidating errands. In addition,

the Town of Granville should pursue the installation of electric vehicle charging stations at municipal locations and grant funding to implement bike and pedestrian infrastructure.

However, given the State mandate, the Town of Granville shall support responsibly sited and properly developed renewable energy generation projects within its borders; but such support shall be tempered by a variety of conditions as outlined below. It is the policy of the Town of Granville to support the development of renewable energy resources. Furthermore, the guidelines below embody community standards for “orderly development” in Granville, as well as protecting the aesthetics and health of our rural countryside.

Solar Generating Facilities

To help reach Vermont’s 90% by 2050 renewable energy goal, the Town of Granville has a target of generating between 1,673 to 2,045 MWh of renewable energy. As of June, 2019, the Town of Granville has a total of 15 solar installations with annual electricity generation of 93.036 MWh. It takes roughly 9 acres of solar collectors to produce one megawatt of electricity.

As with any proposed commercial project, sighting is the primary factor to be considered in cases of proposed solar energy projects. The natural beauty of Granville is its primary asset and, accordingly, commercial energy developers should consider the proposed facility’s aesthetic impact on the surrounding landscape. The town has been a bucolic vista of agricultural fields, forest and wetlands for over 250 years. Generations of families live here now because of the rural nature of the town and landscape.

Any energy generation facility proposed in Granville must be developed so as to minimize negative impacts on the rural character of the surrounding area. Developers shall be required to make all possible efforts to minimize damage to important natural areas as identified in the Natural Resource section of this Town Plan. Additionally, such facilities must be located as close to existing roads as possible to avoid any increase in the services provided by the town. If the Renewable Energy Credits (RECs) of a proposed renewable energy project are to be sold, Granville’s support of that project may increase if said RECs are sold within the state of Vermont.

Renewable Facility Siting Guidelines

The following are general guidelines of what Granville considers “good” sites and those considered “poor” sites for proposed renewable generation facilities:

- A. *Good sites* generally have several of the following characteristics:
 - a) Roof-mounted photo-voltaic systems;
 - b) Close proximity to existing hedgerows or other topographical features that naturally screen the proposed array from view from at least two sides;
 - c) Avoids or minimizes impacts to prime agricultural or recreational lands, wetlands, floodplains, ecologically and archaeologically sensitive areas, scenic viewsheds, trails and other lands of local value.
 - d) Designed in a way to take advantage of natural topography to minimize appearance to neighbors and passersby;
 - e) South facing [for solar] on the backside of hills or knolls that naturally screen the project from public view;
 - f) Does not interfere with the orderly development of the town
 - g) Re-use of former brownfields or otherwise impacted property.
- B. *Poor sites* generally have several of the following characteristics:
 - a) The removal of productive agricultural land from agricultural use;
 - b) Are out of scale with the surrounding structures or development;
 - c) Prominent sites on flat land near a road(s) or home(s) which dominate the view and rural characteristics of the surrounding area.
 - d) No natural screening;

- e) Topography that causes the project to be visible against the skyline from common vantage points like roads or neighborhoods;
- f) Potential adverse impacts to prime agricultural or recreational lands, wetlands, floodplains, ecologically and archaeologically sensitive areas, scenic viewsheds, etc.
- g) Sites that require rate-payer investment in transmission or distribution infrastructure [rather than the developer].

As required by 30 V.S.A. § 248(s), all ground-mounted solar electric generation facilities must comply with the following setback standards:

- a) This subsection does not require a setback for a facility with a plant capacity equal to or less than 15 kW (DC).
- b) The requirements of the setbacks in this section may be decreased to the minimums set forth in Act 56 if the project developer can demonstrate to the Board of Selectmen that the topography of a site naturally screens 100% of project view from the boundary line in question.
- c) For a facility with a plant capacity exceeding 150 kW:
 - i. 100 feet from a State or municipal highway, measured from the edge of the traveled way
 - ii. 50 feet from each property boundary that is not a State or municipal highway
- d) On review of an application, the Public Utility Commission (PUC) may:
 - i. Require a larger setback than this subsection requires; or
 - ii. Approve an agreement to a smaller setback among the applicant, the municipal legislative body, and each owner of property adjoining the smaller setback.

The siting and screening renewable energy projects should be done in such a manner that it creates no greater burden on neighboring properties than existed prior to installation. As an example, a landowner should avoid siting an energy project on their property in a location calculated to diminish the visual impact of the array from their own residence, but that places the array immediately within their neighbor's or the public's viewshed.

In order to preserve the agricultural aesthetic qualities of Granville's rural character and to avoid any future brownfield areas in town, all renewable energy projects shall be decommissioned at the end of their useful life and the property shall be restored to its pre-project condition. Developers of all energy projects ~~30~~ 150 kW and greater shall provide the town with appropriate assurances to guarantee funding exists to decommission the project. The end of the useful life of the project shall be deemed to occur when less than 20 percent of the project is used for its original purpose-

Hydro and Wind Generating Facilities

There are no existing hydroelectric facilities in Granville, nor is there any potential for hydroelectric development. Wind resources in Granville are limited to ridgelines including Adams Mountain in the north, and the southern border of the town. There is an estimated wind energy generation potential of 5,568,623 MWh in Granville. Development of renewable energy facilities on Granville's ridge lines at elevations greater than 1,800 feet are prohibited. Appropriately sited residential scale towers capable of generating <15KW are encouraged throughout town, except above the elevation of 1,800 feet where they are prohibited.

Goals, Policies, Recommendations

Goals

1. To ensure the long-term availability of safe, reliable and affordable energy supplies.
2. To reduce energy consumption and increase energy efficiency.
3. To ensure a pattern of settlement and land use that ~~is energy efficient~~ conserves energy.

4. To promote the design, siting, and construction of buildings and structures that are energy efficient and reduces the use of fossil fuels.
5. To encourage renewable energy generation projects.

Policies

2. The Town of Granville shall encourage the conservation of energy by:
 - a) Encouraging passive solar, net zero and energy-saving building practices
 - b) Encouraging energy audits on existing municipal, residential and commercial buildings with a focus on making cost-effective thermal and energy efficient improvements
 - c) Encouraging compliance with RBES and CBES
 - d) Promoting the use of advanced wood heating systems, cold climate heat pumps, electric vehicles, and Energy Star appliances
 - e) Encouraging carpooling, alternative transportation, telecommuting, and home businesses
3. The Town of Granville shall encourage the patterns and densities of land use resulting in the conservation of energy by requiring major public investments, commercial, and residential developments to be situated in close proximity to existing town infrastructure.
4. The Town of Granville shall support the development of renewable energy and energy storage, and shall refer to the renewable energy Siting Guidelines and recommendations of this chapter.

Recommendations

1. The Selectboard should further investigate the Efficiency Vermont ButtonUp program and Capstone community action agency to see how Granville can participate in their energy saving programs as a community.
2. The town should make thermal improvements and consider electric vehicle charging station infrastructure and renewable energy generation facilities when building or renovating public facilities.
3. The Selectboard should include energy efficiency and use of renewable energy when planning for capital investments.
4. The town should increase public awareness and use of energy efficiency and conservation practices, financial incentives and renewable energy generation and storage methods through educational efforts.
5. Town officials should participate in the Public Utility Commission's review of renewable generation and transmission facilities to ensure that community standards regarding local energy, resource conservation, and development objectives as set forth in this Plan are respected.
6. The town should consider ways to ensure that RBES and CBES standards are followed, and that the required certificates are issued and filed in the land records.

VII. Significant Cultural, Historic and Scenic Resources

Several Granville buildings, dating from 1825 to about 1865, are listed on the State Register of Historic Places. There were at one time three inns, all now private residences. Of the two churches originally built, only the one in Lower Granville remains. Constructed in 1838, it was raised in 1871 to provide another level underneath to be used as the Town Clerk's Office. Originally called the Methodist Episcopal Church, the name was changed to the Union Meeting House and today functions as the Granville Town Hall and Town Clerk's Office.

Three of Granville's original ten schoolhouses remain today. Number 10 in Upper Granville Village functioned as a school through the 1940's. After the school closed in 1951, the building housed the town's library until 1990. Since 1990 it has been vacant. In 2012 the Town deeded the building and an adjacent 6 acre forest parcel to the Corner School Resource Center of Granville, Inc., a nonprofit foundation engaged in refurbishing the building as a community resource center.

Schoolhouse Number 2 in South Hollow is now a private residence. Schoolhouse Number 1 in Lower Granville closed in 2009 after 158 years of continuous use. Following the closing of that school, the Town Clerk's Office - which, in the intervening years, had moved to a small building on Route 100 north of the Union Meeting House - returned to that building in 2009. This former Town Clerk's Office, adjacent to the Elmwood Cemetery, has become the new Granville Post Office. The Grange Hall, erected in 1875, still stands today serving its original function.

John Deere, inventor of the steel plow, lived at the home of Mary and William Lamb in Granville's South Hollow sometime after 1830. He married one of their daughters, Demarius. They lived in different towns in Addison County, but eventually settled in Moline, Illinois. After the death of Demarius, John Deere returned to the Lamb home in 1866 and married another Lamb daughter, Lucinia. The wedding took place in the Union Meeting House in Lower Granville. The couple returned to Moline, where Deere died in 1886 at the age of 82. Many of the Lambs are buried in the South Hollow Cemetery.

As mentioned in the Transportation section, Route 100 is a nationally designated Scenic Byway. Granville Gulf Reservation consists of 1,171 acres on either side of a six-mile section of Route 100 known as the Granville Gulf. The original parcel consisted of a 900-acre gift from Governor Redfield Proctor in 1928. Additional purchases in 1942 and 1952 brought the total acreage to what it is today.

Granville Gulf Reservation is best known for its aesthetic contribution to the scenic drive along that section of Route 100 and for the spectacular Moss Glen Falls with its 80-foot drop to the floor of the gulf where Deer Hollow Brook joins Alder Meadow Brook.

The Reservation is popular for hunting and wildlife viewing but perhaps the most popular draw is the parking area on Route 100 to see the view of the falls. In addition, a 20-acre old-growth stand of red spruce and hemlock has been designated Granville Gulf's Spruce-Hemlock Stand, a State Natural Area. North of the height of land, the notch is the source of the Mad River, which drains into the Winooski River, and into Lake Champlain. Lake Champlain drains into the Richelieu River in Quebec, thence into the Saint Lawrence River, and into the Gulf of Saint Lawrence. To the south, the notch is drained by Alder Meadow Brook, a tributary of the White River, which drains into the Connecticut River, and into Long Island Sound in Connecticut. The Granville Gulf Reservation is managed by the Vermont Department of Forests, Parks, and Recreation.

East of the Green Mountain National Forest and Route 100, the Braintree Ridge provides scenic beauty all along Granville's North Hollow Road.

Goals, Policies, Recommendations

Goals

1. Preservation of Granville's historic structures and historical sites.
2. Preservation of Granville's scenic resources.

Policies

Policies relevant to the above goals are set forth in section III. Natural Resources and Physical Conditions, section V. Utilities, Facilities, and Services, as well as section X. Land Use.

Recommendations

1. Promote the historical and cultural resources of the community and build support for local historic preservation efforts.
2. Maintain the flavor and character of the Village Centers by monitoring development and encouraging developers to incorporate design features comparable to New England historic style architecture.

VIII. Housing

Although the provision and maintenance of a town's housing stock is primarily a private sector activity, a major function of local housing planning is to meet two community objectives - first, safe and affordable housing for its present and future population; and second, suitable density and distribution of housing throughout the community. Growth in housing affects the Town's character and capacity to provide facilities and services.

According to the 2010 U.S. Census, there are about 244 housing units in Granville. In 2000, there were 218 housing units. This amounted to an increase of 26 units or nearly 12% over the ten-year period, or an average of roughly 2.5 units per year. A housing unit, as defined by the U.S. Census, includes houses, apartments, mobile homes, and rooms for occupancy. As is the case for most Vermont towns, the bulk of Granville's housing units are single-family homes (84%).

When compared to its neighboring towns and Addison County as a whole, Granville has one of the lowest percentages of owner-occupied homes (51%). The percentage of second homes (36%) in Granville is second only to the town of Warren, which is home to several ski areas.

Affordable housing is defined as costing no more than 30% of annual household income. For homeowners, housing costs include payments for principal and interest on mortgage, taxes, etc. For renters, housing costs include rent and utilities. In 2013, the Vermont Housing Finance Agency (VHFA) reported that 38% of Addison County's residents are spending more than 30% of their income for housing.

To ensure that housing in Granville does not become entirely unaffordable, it is important for the community to maintain diverse types of housing stock. A mix of single family (including mobile homes), multi-family and rental units is necessary to provide housing options for residents with varying income levels. Another means of creating affordable housing is partition of existing structures into more than one living unit, i.e., creation of accessory dwelling units located within an owner-occupied single-family dwelling. Further, the broader definition of accessory dwelling unit (an efficiency or one-bedroom apartment that is clearly subordinate to a single-family dwelling, and has facilities and provisions for independent living, including sleeping, food preparation, and sanitation) may also be *appurtenant* to rather than strictly within an owner-occupied single-family dwelling. However, new construction of such 'detached' accessory units are subject to regulations such as the Flood Hazard Bylaw that are not applicable to units within a home.

Granville's percentage of renter-occupied housing (9%) is substantially lower than that of other Addison County towns. In 2000, the US Agency of Housing and Urban Development (HUD) calculated the fair market rent for a two-bedroom apartment in Granville at \$598 per month; in 2013, that cost had risen 60% to \$957 per month. For rental to be considered affordable at that rate, the renter's annual household income would need to be roughly \$38,280. Given that more than 60% of Granville's households filed tax returns valued at less than 40,000 in 2012, it is likely that renters in the community find it difficult to afford rental housing in Granville.

The VHFA, in its 2013 "Housing Needs Assessment in East Central Vermont" indicated that the median income family in Addison County (\$57,203) could likely afford the median home price of \$173,000. (Note that this figure differs from the Median Household Income. A household is defined as any individuals living in a house, regardless of relationship. A family must be related by marriage or blood.) Granville's median household income is only slightly lower than the county median (\$53,127) and presumably could afford the cited median home price.

The age of homes in Granville is something of a barrier to affordable housing. Vermont's housing stock is among the oldest in the United States and 47% of the homes in Addison County were built before 1970. Such homes were built before newer energy efficiency technology was available, when housing codes were more lax, and the use of

lead-based paint was widespread. These factors can increase the operating costs of housing, as well as posing dangers to the health and safety of residents.

The location of housing plays an important factor in housing affordability. For example, the VHFA suggests that for a household 10 miles from locations of employment, driving is likely to cost \$122 less per month than a household 25 miles away. Living near employment or other daily destinations can reduce overall living costs substantially and allow a household to better afford rent or a mortgage.

With further reference to location of housing, as noted in the Economic Conditions and Land Use sections, Granville has three designated Village Centers. Although Granville has no zoning bylaws, it is these village areas that are the most suitable for additional housing of all types - multi-family, manufactured, subsidized.

Granville's trend toward an older population was noted in the Demographics section. If health is seriously compromised and some form of constant care is required, seniors may need to enter a nursing home or a residential care facility. There are no such options in Granville, and very few in the surrounding area for this type of care. Elderly Granville residents in need of full-time care are forced to move away from their community. This is a statewide and nationwide problem, not just a local issue. One potential way to curb this issue is to advocate for the development of accessory dwelling units. That way elderly or disabled relatives can stay close to family, or these groups could move into accessory units as an affordable housing option.

Within Vermont there are two types of elder- and disabled-care facilities which are subject to state regulation: nursing homes and residential care facilities. Nursing homes, such as those associated with Randolph's Gifford Medical Center and Middlebury's Porter Hospital, provide nursing care and related services for people who need nursing, medical, rehabilitation, or other special services. They are licensed by the state and are certified to participate in the Medicaid and/or Medicare programs. To meet the needs of people who cannot live independently but do not require the type of care provided in a nursing facility, the Johnson Care Home in Hancock is a Level 3 licensed facility and participates in the Medicaid/Medicare programs; Rochester Community Care Home, Inc., known as the Park House, is a shared living residence with rent subsidies available from Vermont State Housing Authority (VSHA).

Goals, Policies, and Recommendations

Goals

1. To better meet the demands for affordable housing, the Town is encouraged to work with businesses and non-profit housing corporations.
2. The Town shall employ regulatory and/or non-regulatory tools regarding the location of primary and vacation housing, related amenities, and other planned land uses to ensure that such developments proceed with due regard to the physical limitations of the site and setback guidelines; our social, economic, and architectural heritage; property values; environmental issues; nuisance concerns; and current or planned public and private services, such as roads and commercial/service centers.
3. To encourage innovative planning, design, and construction of residential housing that minimizes the cost, energy consumption, and environmental impacts of housing.
4. Encourage the conservation of existing structures, especially in the Village Area.
5. Protect existing and future housing from flood damage.
6. Encourage safe and sanitary housing.

7. Encourage the provision of housing for special needs populations, such as the elderly and people with disabilities.
8. Encourage the development of appropriate multi-family housing in the Village.
9. Encourage the creation of accessory dwelling units to provide additional housing options for the community.

Policies

1. It is the policy of the Town to allow for growth of housing for all income levels at a rate consistent with the community's ability to provide services in a fiscally sound manner and in a manner consistent with the other goals and policies expressed in this Plan.
2. It is the policy of the Town to utilize available public funds in the form of subsidies when necessary to provide affordable housing. Where such projects involve public funds, they should only be encouraged when these investments result in developments which are affordable on a long-term basis and when a clear public benefit to the community can be demonstrated.
3. It is the policy of the town that priority should be given to the preservation and improvement of housing already in existence, including partition of existing structures into more than one dwelling unit as well as appurtenant accessory units.
4. It is the policy of the town that various types of housing such as multi-family, manufactured, accessory dwelling units and subsidized housing should be encouraged within or adjacent to existing Village Center areas where municipal services are most readily available.

Recommendations

1. Community leaders should work with state housing agencies, non-profit organizations, and lending institutions to ensure the availability of loan or grant funds for Granville residents to acquire or improve their primary homes.
2. As of early 2019, the Regional Commission is engaging in a new study to evaluate the region's housing stock and housing needs. The Town should await completion of this study and consult it for any useful information regarding Granville housing.
3. Encourage developers to utilize the federally funded Low-Income Housing Tax Credit (LIHTC) administered by the state.

IX. Flood Resilience and Hazard Mitigation

Flood Hazard Overlay Area

Granville's Flood Hazard Boundary Map, issued in 2006 by the Federal Flood Insurance Administration, indicates those lands which are considered subject to flood hazard, including flood hazard areas for the Main Stem of the White River as well as for major streams and ponds. This map is on file at the Town Office and at the Two Rivers-Ottawaquechee Regional Commission. Granville also has a Flood Hazard Administrator.

Floodplains make excellent agricultural land but are poorly suited for development, both because of their propensity for flooding and because of their proximity to watercourses, which creates the potential for pollution.

Approximately 363 acres in Granville are within the floodplain area, which is just over 1% of the total land in the community.

Vermont has experienced more than fifteen statewide and regional floods since 1973. All but one of these were declared federal disasters, and economic losses were significant. Damage was not limited to designated floodplains, but often occurred along unstable river systems and steep streams, and in areas where stream debris was excessive. In some cases, recovery costs to the Town of Granville alone amounted to several million dollars per flooding event. Public interest dictates that every reasonable attempt should be made to avoid or reduce such exposure to flood damage.

National Flood Insurance Program (NFIP)

Under the provisions of the National Flood Insurance Act (1968), the Federal Emergency Management Agency (FEMA) has conducted a series of evaluations and hydrologic engineering studies to determine the limits of flood hazard areas along streams, rivers, lakes, and ponds expected to be inundated during the 100-year base flood, meaning that the flood level has a 1% chance of being equaled or exceeded in any given year. The calculations do not take into account the impact of ice dams or debris, and may, therefore, actually underestimate the areas which are subject to flooding damage.

Two Rivers-Ottawquechee Regional Commission has determined that approximately 37 structures (including 31 houses and 6 businesses) in Granville are located within the mapped flood hazard areas. The majority of these buildings are located in Granville's Villages.

Mortgage lending institutions require that flood insurance be purchased on property subject to flooding. FEMA administers the National Flood Insurance Program, which provides flood hazard insurance at subsidized rates for property owners in affected areas. In order to qualify for such insurance, Granville adopted and retains a stand-alone bylaw to control land development within these areas that includes minimum standards as prescribed by FEMA but also exceeds the minimum standards. Granville's Flood Hazard Bylaw, administered by the Flood Plain Board of Adjustment, prohibits all new development within the floodway and restricts development of new primary structures (commercial and residential) in the floodplain. Within the floodplain, new structures are not allowed but additions to existing buildings and secondary structures are conditional uses. Accessory structures and additions to existing structures are allowed as conditional uses, but only if they are properly flood-proofed and will not raise the existing flood level more than one foot. To clarify terms, the floodway is the channel of a river or stream and the parts of the terrain adjoining the channel that are reasonably required to efficiently carry and discharge the flood water or flood flow of a river or stream. The *floodplain* is the area adjoining a river or stream that has been or may be covered by the 100-year flood.

The purposes of the Flood Hazard Bylaw, in conjunction with the Land Use Section of this Plan, are to:

- Avoid or minimize the loss of life and property, the disruption of commerce, the impairment of the tax base, and the extraordinary public expenditures and demands on public services that result from flooding related inundation and erosion;
- Ensure that all aspects of development in hazard areas are safe and are accomplished in a manner that is consistent with public wellbeing, does not impair stream equilibrium, floodplain services, or the stream corridor;
- Manage all designated flood hazard areas pursuant to 10 V.S.A. Chapter 32 § 753, the municipal hazard mitigation plan; and ensure that the Town of Granville, its citizens, and businesses are eligible for federal flood insurance, federal disaster recovery funds, and hazard mitigation funds as may be available.

Fluvial Erosion Hazards

Much flood damage in Vermont is associated with stream channel instability, also known as the fluvial erosion hazard (FEH), as opposed to inundation related losses. This is a reflection of Vermont's natural geography and its

man-made landscape consisting of steep, relatively narrow valleys with agricultural land uses, highway infrastructure, private residences and commercial properties located in close proximity to stream channels. River channels that are undergoing an adjustment process as a result of historic channel management activities or floodplain encroachments oftentimes respond catastrophically during large storm events.

Historically, landowners and local government have relied on the standards and the flood hazard boundary maps provided by FEMA and NFIP to determine areas within river corridors susceptible to flood damage. However, these maps address only inundation issues by applying a water surface elevation based standard. For this reason the NFIP maps are often inadequate as indicators of other flood hazards such as erosion. For example, a significant portion of hurricane Irene's damage was not in the area mapped by FEMA as flood plain or fluvial erosion hazard areas. As stream valleys are common locations for rural roads, the flood waters in some instances completely destroyed large stretches of Granville's town roads, most outstandingly, Buffalo Farm Rd.

In addition, the NFIP standards do not recognize the danger present in unstable channels which may be undergoing a physical adjustment process. The stream bed may be eroding or it may be actively aggrading due to erosion occurring upstream. The NFIP standards often allow for significant encroachment within floodplain areas and river corridors that may prevent the stream from ever re-establishing its stability. Special mapping and geomorphic assessments can identify FEH areas along rivers, more comprehensively defining high-hazard areas. While fluvial erosion hazards of the Main Stem of the White River (also called River Corridor Area) have been mapped, this area is not currently subject to specific regulatory conditions in the Granville Flood Hazard Bylaw. However, as Granville's Flood Hazard Bylaw expires in July 2019, when the Planning Commission drafts a new one, new development prescriptions that address such fluvial erosion hazards may be included.

Hazard Mitigation Plan

Hazard mitigation entails planning for reducing the effects of a disaster. For Granville, the primary hazard is flooding, with a variety of other lesser hazards. All hazards have been reviewed in the town's Mitigation Plan. Though a disaster can result in state or federal assistance, the Town should take sensible steps to prevent loss of life as well as to reduce disaster costs and damage to property. The Town's Local Hazard Mitigation Plan must be updated every five years and is due for review and readoption by July 2019.

Goals, Policies, Recommendations

Goals

1. To provide Emergency Services for all of Granville and maximize Granville's preparedness for emergencies.
2. To enhance and maintain use of flood hazard areas as open space, greenways, non-commercial recreation and/or agricultural land.
3. To ensure, through sound planning, no net loss of flood storage capacity in order to minimize potential negative impacts such as loss of life and property, disruption of commerce, and demand for extraordinary public services and expenditures that result from flood damage.
4. To protect municipal infrastructure and buildings from potential flood damage

Policies

1. The Town of Granville shall provide quality Emergency Services on a town-wide basis.
2. The Town of Granville shall maintain its Flood Hazard Bylaw and Local Hazard Mitigation Plan, updating and re-adopting each as needed.
3. Granville prohibits all new fill and construction of buildings in mapped floodways (mapped areas, unless amended by FEMA).

4. Permitted land uses within Granville's River Corridor Areas shall be limited to non-structural outdoor recreational and agricultural uses due to the dangerous erosive risk in these areas.
5. Commercial, industrial, and residential uses within ANR's mapped river corridor areas outside of designated village areas are prohibited. New development within designated village areas shall not be closer than current structures.
6. Move or abandon roads that often experience serious flood damage.
7. Culverts and bridges shall be designed to meet, at minimum, VTrans Hydraulics Manual, ANR Stream Alteration Standards, VTrans Codes and Standards. Culverts shall be maintained to ensure they are effective during severe weather events.
8. Granville's emergency services, power substations, and municipal buildings shall not henceforth be built in the Special Flood Hazard or River Corridor Areas.
9. Granville will maintain vegetated buffer strips in riparian zones bordering streams and rivers. Rock rip-rap and retaining walls should only be used to the minimum extent necessary and when bioengineering techniques may not be adequate to prevent significant loss of land or property.
10. Prioritization of maintaining Granville's upland forests and watersheds predominately in forest use to ensure high quality valley streams and to ensure that flood flows are reduced.
11. All wetlands which provide flood storage functions shall remain undeveloped. In the long term, restoration and enhancement of additional wetlands should be pursued in order to improve Granville's flood resilience.
12. After flood events, recovery and reconstruction within the river area shall be managed according to the Vermont River Program's best practices in order to avoid negative impacts downstream.

Recommendations

1. The Town's Local Hazard Mitigation Plan (LHMP) must be updated every five years and is due for review and readoption by July 2019.
2. If not in the previous LHMP or Flood Hazard Bylaw, the new LHMP should: a) prohibit new development in the 100-year floodplain (excluding small ancillary structures); b) stipulate that all substantial improvements to structures should be elevated 2 feet above base flood elevation (BFE).

X. Land Use

Needless to say, land use policies directly affect the overall character of a town as well as the natural environment. For example, policies and related regulations that allow for large tracts of land to be sold for residential purposes could conceivably help protect open space, but that open space might no longer be available for agricultural use without considerable forethought and design. The same ordinance calling for much smaller lot sizes (such as one acre) would, over time, lead to a gradual decrease in the amount of usable farmland. Use of smart growth principles, like clustered housing, can avoid this.

Roughly 46% of Granville is part of the Green Mountain National Forest with limited locations where development can occur. In addition, the geological characteristics of Granville, the current State septic regulations, the Federal Wetlands Act, and the current floodplain regulations prohibit development of more than 90% of Granville lands.

In order to facilitate orderly growth, minimize any undue burden on municipal infrastructure and encourage the vitality of Granville's Villages as well as to protect Granville's rural character, through the state's Village Designation Program, the Planning Commission has established two future land use areas. Designation of these land use areas is intended to determine how and where the community wishes growth to occur and to set forth related standards in the event of an Act 250 review.

Village Center Areas

As referenced in section II. Economic Conditions, Granville has two designated Village Center Areas – Granville Village (or Upper Granville Village), Lower Granville Village. Upper and Lower Granville are located on Route 100 and are separated by approximately one mile. Upper Granville is home to Granville Mfg. (aka The Bowl Mill), the Granville Country Store, and Green Mountain Glassworks. The Municipal Office is located in the Granville Town Hall in Lower Granville. As of 2019 the Granville Post Office is located in the old Town Clerk's Office building approximately midway between the Upper and Lower Village Centers. Also more recently than the 2014 Town Plan, and also along Rt. 100 between the two Village Centers, we now have the public recreation area of Granville Commons and Freeman's Launch. East Granville is located on Route 12A; it is unique in that it is separated from the bulk of the town by Adams and Lost Mountains, with no direct access to Route 100 and the great majority of the town's area.

The Village Center Areas are intended to act as small community centers with a mix of civic, residential, commercial and small-scale light industrial uses. Shops and services, tourist businesses, lodging, public facilities and business and industrial enterprises at a small scale with appropriate design characteristics that fit the context of the area are encouraged. As there are no public sewer or water systems in Granville, new development must be kept at densities that allow for individual septic systems.

Rural Areas

All areas of Granville that are not part of the Village Center Areas are considered Rural Areas. Granville's Rural Areas consist of a mixed pattern of land uses, including residential, small-scale businesses, outdoor recreational, agricultural, forestry, and natural resource uses.

Non-residential uses, such as service businesses, professional offices and guest accommodations, are acceptable land uses for Rural Areas provided that such uses are planned as relatively small in size or scale; are auxiliary and not primary uses; do not unduly conflict with existing or planned residential, forestry or agricultural uses; and do not unduly affect rural character. Such non-residential development in Rural Areas may be permitted along Class 2 and Class 3 roads, but may be prohibited in areas that are not served by municipal roads, as outlined and authorized in the Vermont Agency of Transportation "standard A-76 for Rural Town Highways" and the pursuant Granville Town Highway Ordinance.

Agriculture and forestry define the character of Vermont and comprise major industries in the Region. Vermont agriculture and forestry have undergone extreme changes over time. These changes pose difficult challenges, not just for landowners, but for all who desire a rural lifestyle and working landscape. However, opportunities for new and innovative farm and forestry businesses are on the rise. How we plan Granville's future land use can help maintain the working landscape (as defined in the Economic Conditions section) by supporting the agriculture and forest industries.

The shift away from agriculture to the service and tourism industries has placed economic pressure on farm owners. Rising taxes on land make it difficult to sustain conventional farming. As with farm owners, owners of forestland are faced with a taxes that exceed the land's economic value for timber production. Coupled with a need for house lots and other types of development, landowners are thus pressured to place their land on the market for these purposes.

For farmland and forestland conservation to be successful, the pressures posed by the market value approach to taxation must be alleviated for both the landowner and municipality. One means to address this issue has been the Vermont Current Use Program administered by the State which sets the valuations on farm and forest land based on their productivity values rather than their development values. The Current Use Program provides tax incentives for qualifying landowners who enroll in the program and agree to not develop their lands and to manage them in accordance with a management plan developed in cooperation with the Vermont Department of Forests, Parks and Recreation. As of 2017, there are 48 parcels comprising 13,536.17 acres of land in Granville enrolled in the Current Use Program. This amounts to nearly 40% of all privately owned lands in Granville.

Conservation easements are a means of preserving the working landscape. The Vermont Land Trust (VLT), Vermont's largest non-profit conservation organization, has conserved more than 590 parcels of land in agricultural use throughout the state, totaling 145,109 acres. Most land purchased with the intent of applying a conservation easement to it is funded, at least in part, by some form of grant funding from either state or private sources. The use of conservation easements has both pros and cons for municipalities, they include:

Pros

- Easements are flexible; they can be written to achieve specific goals of the town involved.
- They are perpetual, and restrictions put on the conserved lands will remain in force even when the property is sold to a new party.
- They conserve scenic beauty and environmentally sensitive areas.
- Eased property remains on the tax rolls.

Cons

- Establishing an easement involves up-front costs, such as paying for legal counsel, biological analysis, etc.
- There are long-term expenses involved with monitoring the easement.
- The easement holder is responsible for ensuring that the restrictions placed on the easement are followed.

There is a growing and successful movement toward sustainable agriculture—involving increased local food production and consumption, value-added processing, and diversified farms. In 2009, the State of Vermont enacted legislation that created the Farm to Plate Investment program, including the creation of the Farm to Plate Strategic Plan. Many other businesses in Vermont depend on the farm economy. According to the Vermont Farm to Plate Strategic Plan (F2PSP), in 2011, Vermont had at least 457 food processing establishments that employ at least 4,356 people and is the second-largest manufacturing sector employer in the state, behind computer and electronic products. In addition, Vermont has at least 263 wholesale distribution establishments that collectively employ at least 2,288 people. The farm economy and farm-related food industry even have beneficial effects for the tourist economy.

For census purposes, a farm is defined as “a place from which \$1,000 or more of agricultural products were produced and sold, or normally would have been sold, during the census year.” In Granville, the most recent Census of Agriculture (2007) reports that there are 3 full-time and 3 part-time farm operations. About 2/3 of these farms utilize less than 50 acres of land. In the past, farms in Granville have produced hay, dairy and beef cattle, horses, chickens, pigs and sheep. More recently, located on Rt. 100 just south of the Lower Village Center, Clearfield Farm was established on the former Bagley dairy farm and is a 56 acre VOF certified organic mixed vegetable and cut flower farm.

Though federal law recognizes the importance of farmland and farmland protection, local planning and related regulations often neglect the issue of prime agricultural land and the conflicts that arise between expanding development and successful farming. The distinctiveness of the working landscape gives Vermont its beauty. Farms provide open space for wildlife habitat, scenic views and a connection to the land that is hard to find in other places. To continue to enjoy the benefits farming has to offer, a community must encourage farming.

As with farmland, subdivision of large forest tracts into small lots by owners eager for financial gains also threatens the economic viability of forestry. However, while the funding of the Current Use Program has been identified by the Northern Forest Lands Council as vital to preventing landowners from selling subdivided parcels, as well as preventing over-harvesting of forests or liquidation of cutting of tracts, Vermont’s recent Act 171 provides further critical reasons and legal means for maintaining forest integrity.

While the state of Vermont is 74% forested, the last decade has seen the first drop in overall forest cover in over 100 years. This decrease in forest cover is largely due to “rural sprawl” and has the significant negative effect of fragmenting woodland habitats and natural wildlife corridors. Act 171 is Vermont’s effort to protect forest integrity and, at the very least, to maintain habitat connectors at the town level by Plan identification of important forest blocks and establishing policies to prevent their fragmentation, as well as policies to maintain connectors between blocks and/or establish connectors where needed.

The state of Vermont locates and rates forest blocks on their importance on a 1-10 basis, with a higher number indicating a more crucial forest block. On the appended Forest Block Map (a), Granville is shown to have two extremely large Highest Priority Interior Forest Blocks and five other lower Priority Interior Forest Blocks. While the northernmost of these five is discrete, the four southernmost blocks are adjoining. Block 2395, Green Mountain National Forest land, is rated at 9 and considered to be critically important to Vermont’s woodland and wildlife habitat. The other very large Highest Priority Forest Block (2542) is on the east side of Rt. 100. It is striking that, according to this Regional Commission map, nearly all of Granville is identified as significant forest and/or connectivity block terrain (see Forest Block Map (b)). Roadways are the primary fragmentary of forest blocks in Granville, i.e., Rt. 100, North Hollow, Post Office, and Maston Hill Roads.

The vast acreage of the Green Mountain National Forest, west of Rt. 100, is not subject to regulation by the Town of Granville. Though there are some small pockets of State public land east of Rt. 100 also not subject to Town regulation, almost all the land east of Rt. 100 is within our purview. Thus, it is this land we must protect from forest fragmentation.

Goals, Policies, Recommendations

Goals

1. To prioritize protection of the natural environment and prohibit development in rare, threatened or endangered species habitat or communities.

2. Ensure that future development and parcel subdivisions do not further fragmentation of forest blocks and maintain forest connectors.
3. To formulate land use policies - regulatory and/or non-regulatory - that:
 - a) allow Granville to continue to be a socially, economically and physically diverse community;
 - b) will retain clear evidence of the community's history;
 - c) preserve the community's identity and its existing qualities of scale and form;
 - d) is, nevertheless, adaptable to change.

Policies

1. Shops and public facilities, as well as business and industrial enterprises at a small scale that fit the context of the surrounding area, shall be restricted to the Village Center Areas.
2. Residential uses and home occupations shall be the dominant form of development in Rural Areas. Non-residential uses, including small service businesses, small professional offices and tourist lodgings, are acceptable land uses for Rural Areas provided that such uses are planned as relatively small in size or scale, are not primary or dominant uses in an area, do not unduly conflict with existing or planned residential, forestry or agricultural uses, and do not unduly affect rural character.
3. Where contiguous areas of high value farming or forestry exist, or have significant potential to exist, fragmentation of these areas into uses other than those incidental to agriculture or forestry should be discouraged.
4. Where high value agricultural and forested land are identified, clustered or peripheral development is especially encouraged to protect such resources and prevent fragmentation and sprawling settlement patterns.
5. Contiguous forest and significant agricultural areas should remain largely in non-intensive uses unless no reasonable alternative exists to provide essential residential, commercial and industrial activities for the Town's inhabitants.
6. The construction of utilities, roads or other physical modifications should skirt tracts of productive agricultural land rather than divide them.
7. Farmers, loggers, and foresters should use Accepted Management Practices (AMP) and are encouraged to implement Best Management Practices (BMP) in their operations and to minimize point and non-point source pollution.
8. Pursuant to Act 171, any development that fragments existing forest blocks shall be discouraged, unless such development provides and maintains viable connection(s) between newly divided sections.
9. Commercial strip development - that which occurs in a linear path along a right-of-way and often restricts visual and physical access to interior lands - is inconsistent with this Plan.

Recommendations

1. Consider creating more connectivity between Upper and Lower Granville Village Centers; e.g., the Conservation Commission and Parks/Recreation Committee might establish paths and/or a bike lane.

XI. Regional Context

A. Adjacent Towns

The Town Plan focuses primarily on development and policy within the community's boundaries. However, it is important to recognize a community's growth and changes can be directly impacted by development that takes place outside of the community. This, of course, works both ways: changes in surrounding towns can impact Granville just as changes in Granville can impact them. In order to analyze the potential for such impacts, the Planning Commission has reviewed the Town Plans and, where applicable, the land use regulations of surrounding towns for consistency with this Plan. These communities include:

Braintree – The Town of Braintree has a long history of planning and zoning. Their current Plan was adopted in December 2017. The Braintree Unified Bylaw (zoning and subdivision) was adopted in 2010. A portion of Granville's boundary is adjacent to Braintree. Much of that land in Braintree is treated as a conservation area, where density is low and most development is discouraged in an effort to maintain the rural nature of the land. There are no conflicts between the Granville and Braintree Plan.

Hancock – The Town of Hancock has maintained a Town Plan for roughly a decade. Their only land use regulation is a Flood Hazard Bylaw. Hancock's land use patterns are very traditional in that they focus concentrated mixed-use development within their village. Outside of the village, they envision a mix of low density residential and home businesses. This pattern of development is consistent with the Granville Town Plan.

Lincoln – The Town of Lincoln adopted a new Town Plan in January 2018. The town also has zoning regulations, adopted in 2011. Much of the land in Lincoln which borders Granville is part of the Green Mountain National Forest, and therefore is permanently conserved by the Federal Government. All of this land in Lincoln adjoins National Forest land in Granville. All adjoining areas in Lincoln have been designated Conservation areas with only limited development permitted. There is no conflict between the respective Plans.

Ripton – Ripton has a Town Plan which was adopted in 2015, and a Unified Development Bylaw (Zoning and Subdivision combined) which was amended in 2013. Much of the land between Granville and Ripton is part of the Green Mountain National Forest and are therefore closed to development. As with Lincoln, all Ripton land adjoining Granville abuts Granville National Forest land and is designated as a Conservation District zoned for 25-acre parcels. Also, like Lincoln, uses in this district are limited to forestry, agriculture, and open land recreation. The construction of buildings is proposed as a conditional use. There are no potential conflicts between these plans.

Rochester – The Town of Rochester has had a Town Plan, Zoning and Subdivision Regulations since the 1970's. Its most recent Plan is expected to be adopted in spring 2019. The small amount of adjacent lands between Granville and Rochester are of similar types featuring dispersed development that is primarily residential in nature.

Roxbury – The Town of Roxbury's last Town Plan was adopted in 2014 and, as with Granville, Roxbury is currently drafting a new one. The adjoining lands of Roxbury and Granville comprise the steep terrain of the Northfield Mountains and include Roxbury State Forest, which is managed by the Vermont Department of Forests, Parks and Recreation for multiple uses, including timber management, dispersed recreation, and wildlife habitat protection. There are no potential conflicts between these plans.

Warren – The Town of Warren adopted a new Town Plan in 2019. There are approximately 5 miles of Granville's northern border shared with Warren. All but about a half mile of that shared border is Green Mountain National Forest and other public land. The remaining portion on the Warren side is rural residential and/or agricultural; and on the Granville side designated as rural, but also rather prohibitive of development due to the rise of the Braintree Ridge. As the land use policies in both the Warren and Granville 2019 Town Plans remain essentially unchanged from prior plans, there are no potential conflicts here.

B. Two Rivers-Ottawaquechee Regional Commission

Granville is a member of the Two Rivers-Ottawaquechee Regional Commission (TRORC). It is one of thirty (30) municipalities that comprise the Region. The TRORC Region covers northern Windsor County, most of Orange County and several Addison County towns including Rochester, Hancock, and Granville. The Commission was chartered in 1970 by the acts of its constituent towns. All towns are acting members of the Commission, and town representatives govern its affairs. One of the Regional Commission's primary purposes is to provide technical services to town officials and to undertake a regional planning program. As is the case in many areas of the State, the extent of local planning throughout the region is varied. Some municipalities are more active than others. Thus, the level of services to each of the towns changes with time.

The Regional Commission adopted its most recent Regional Plan in December, 2017. It will remain in effect for a period of five years. This Plan was developed to reflect the general planning goals and policies expressed in the local plans. It is an official policy statement on growth and development of the Region. The Regional Plan contains several hundred policies to guide future public and private development in the Region. It also includes classification of areas such as Town Centers, Village Settlement Areas, Hamlet Areas, Rural Areas, and Conservation and Resource Areas, and has mapped or charted these areas.

Pursuant to the State's significantly revised Comprehensive Energy Plan (CEP) of 2011, as well as its subsequent 2016 revision, the latest Regional Plan includes a lengthy Regional Energy Implementation Plan. In accordance with the State goals of achieving 90% renewable energy use by 2050, the Regional Plan has set goals, and included maps showing potential renewables terrain, as well as suggested approaches to reaching those goals, for each of its member towns. From Appendix C - TRORC Renewable Energy Targets, the goals set (and potentials noted) for Granville are as follows:

New Solar Capacity Target: 1 MW
Prime Solar Potential: 622 acres*
Prime Solar within 1 mile of 3 phase: 315 acres

New Wind Capacity Target: .13MW
Prime Wind Potential: 185 acres
Prime Wind within 1 mile of 3 phase: 75 acres

Existing Hydro Facilities: 0
Potential Hydro Facilities: 0

*According to the Regional Commission, "The rule of thumb is that it takes roughly 9 acres for 1MW of [solar] generation."

In addition, Vermont State Act 174 of 2016 offers towns the *option* of seeking certification of their Plans by the Department of Public Service as "energy compliant", which certification "allow[s] those plans to carry greater weight - substantial deference - in the Section 248 siting process for energy generation." The determination standards for such certification are complex, but mainly require a Town Plan to specifically identify "preferred, potential, and unsuitable" sites for large scale *commercial* renewable energy projects within town borders.

It is important to note that smaller scale private/residential renewable energy installations are not within the purview of Act 174. Residential scale renewable energy systems are not regulated at the state level, but may be subject to local regulations. However, State statute forbids the creation of land use regulations that prohibit residential scale renewable energy generation.

This Planning Commission compared the “weight” of certified and *uncertified* Town Plans in the Public Utility Commission (PSB) hearings governing proposed energy generation projects. Certified Plans receive “substantial deference” whereby “a land conservation measure or specific policy shall be applied in accordance with its terms unless there is a clear and convincing demonstration that other factors affecting the general good of the State outweigh the application of the measure or policy.” *Uncertified* Plans are given “due consideration” but this “allows plans’ land conservation measures to be overcome [by the PSB] by good cause to find otherwise.” The Planning Commission found no significant difference between these two terms and definitions and decided not to seek “certification”.

Goals, Policies, Recommendations

Goals

1. Work with neighboring towns and the Regional Commission to encourage “smart growth” principles.

Policies

1. Continued participation in Two Rivers-Ottawaquechee Regional Commission.

Recommendations

1. Exchange planning information and development data with neighboring communities.

XII. Implementation: Putting the Plan into Action

The following sections describe the tools and techniques that could be used to implement the Granville Town Plan.

A. Regulatory Implementation Tools

Vermont law enables Granville to implement the adopted Granville Town Plan through a variety of ways. Regulation of land use and development through rules adopted by the voters is one possible method.

Because these regulations are susceptible to legal challenge and must clearly benefit the public, discretion must be used. Well recognized and widely utilized tools include, but are not limited to, zoning bylaws and subdivision regulations, as described below.

Zoning Bylaws

Zoning bylaws are a commonly used method for guiding development at the local level. Zoning may regulate:

- Uses of land
- The placement of buildings on lots
- The relationship of buildings to open space
- The provision for parking, signs, landscaping and open space.

Zoning generally involves partitioning the town into districts or zones that have a different set of uses, densities, and other standards for development. Zoning districts must be reasonably consistent with the Town Plan. As an alternative to conventional methods, Granville may opt to implement a set of measurable performance standards for specific uses as opposed to dividing the town into districts. This technique, referred to as “performance zoning”, is designed to be more flexible and to recognize the specific conditions of each site proposed for development.

Subdivision Bylaws

Granville does not currently have subdivision regulations. A Subdivision Bylaw is typically drafted by the Planning Commission, adopted by the Selectboard, and then administered by the Planning Commission; however, it may instead be administered by another municipal panel specified in the regulations, such as a development review board. Such regulations govern the division of parcels of land and the creation of roads and other public improvements. Furthermore, subdivision regulations can ensure that land development reflects land capability and that critical open spaces and resources are protected from poor design or layout.

Flood Hazard Bylaws

Under Vermont law [24 V.S.A., Section 4412], the Town of Granville may regulate the use of land in a defined flood hazard area adjacent to streams and ponds. These bylaws can be established to ensure that design and construction activities within the limits of the 100 Year Flood Plain are designed so as to minimize potential for flood damage and to maintain use of agricultural land in flood-prone areas. As noted in the Natural Resources section of this Plan, property owners are eligible for federal flood insurance on buildings and structures at relatively low federally subsidized premium rates. However, such insurance cannot be obtained for properties in Granville unless the town has a Flood Hazard Bylaw in effect, which Granville has.

Highway Ordinances

Granville has a Highway Ordinance in effect setting forth the standards and conditions for the maintenance, improvement, discontinuance, laying out and acceptance of town highways. In addition, the ordinance includes provisions related to the reclassification of town highways (Classes 2, 3 and 4, and Legal Trails). Lastly, Granville does have, through its Select Board, the ability to regulate private access to municipal roads through the issuance of "curb cut" permits to landowners. "Curb cuts" are places where a private driveway or road connects to a town highway. In granting a cut onto town roads, the Select Board can give consideration to safety issues such as adequacy of sight distance and proximity to intersections as well as conformance with this plan.

Capital Budget

A Capital Improvement Program (CIP – also commonly referred to as a capital budget and program) is a financing approach that benefits the town greatly in the selection, prioritization and costing of capital projects beyond operations and maintenance expenses. Under the capital budget, a project is selected (e.g. bridge refurbishment), a funding source determined (e.g. general taxes, and general obligation bonds) and a priority year given for each activity (e.g. construction in 2020). When used in conjunction with the Town Plan and local bylaws, it can be a powerful mechanism for avoiding sharp fluctuations in the municipal property tax rate, and for limiting the rate of growth in accordance with the fiscal capacity of taxpayers and other funding sources. Funding for capital projects is typically voted on separately from the annual budget at an annual or special Town Meeting.

A CIP includes a capital budget and a capital program. A capital budget lists and describes the capital *projects to be undertaken during the coming fiscal year*, the estimated cost of those projects, and the proposed method of financing. A capital program is a plan of capital *projects proposed to be undertaken during each of the following five years*, the estimated cost of those projects, and the proposed method of financing. A benefit of preparing and adopting a CIP is that it allows the community to review and consider major spending decisions well in advance and to set priorities among competing needs and demands.

In addition, it is noted that under Vermont's Act 250 law, in granting a Land Use Permit for a major development or subdivision, the District Environmental Commission must first find that the project is in conformance with the town's capital budget. [See 10 V.S.A., Section 6086(a) (10).] Accordingly, this required procedure gives the town

an indirect method of implementing its policies and priorities as set forth in the Plan. While Granville and the school district has an informal system of capital programming, it is recommended that a Capital Budget Committee be established to work with the Select Board in the development of a list of capital needs and expenditures, and to formally present a Capital Budget and Program for adoption.

Vermont Community Development Program

Since the mid-1970's, the Vermont Community Development Program (VCDP) offers communities assistance on a competitive basis by providing financial and technical assistance to identify and address local needs in the areas of:

- Housing
- Economic development
- Public facilities
- Public services
- Handicapped accessibility modifications

Any Vermont town, is eligible for funding. However, the majority of projects are a coordinated effort between the municipalities, community groups and local or state non-profit organizations or small businesses. Historically, the major focus of the program has been on housing rehabilitation and affordable housing projects benefiting low and moderate-income families. Granville should investigate the Vermont Community Development Program and its potential to assist the community in addressing its housing needs. The Regional Commission and the Vermont Agency of Commerce and Community Development are resources available to assist.

Act 250

Since 1970, Vermont has had in place a statewide review system for major developments and subdivisions of land. Exactly what constitutes a "development" or "subdivision" is subject to a rather large and involved set of definitions. However, generally, commercial and industrial projects on more than one acre of land; construction of 10 or more units of housing; subdivision of land into 6 or more lots; construction of a telecommunication tower over 20 feet in height; and development over 2,500 feet in elevation qualifies.

Prior to these activities being commenced, a permit must first be granted by the District Environmental Commission. In determining whether to grant a permit, the Commission shall evaluate the project in relation to ten specific review criteria. These criteria relate to the environmental, economic, and social impacts of the proposed project on the community and region. Parties to Act 250 proceedings include Granville, through the Planning Commission and Select Board, the State, and the Regional Commission. One criterion that needs to be addressed is whether the project is in conformance with the Granville Town Plan. If a project were determined not to be in conformance with the plan, the District Environmental Commission would have a basis to deny a permit. As such, Act 250 reviews can take into consideration protection of those types of resources considered important to the well-being of the community. Accordingly, it is in the interest of the Town to evaluate Act 250 projects affecting Granville and to offer testimony, as appropriate.

B. Non-Regulatory Tools - Guidelines for Growth

There are also non-regulatory tools that are intended to help town officials, residents and developers work together to implement development consistent with the goals and policies of this plan. The following is a summary of such guidelines that have been incorporated in this Plan.

Siting New Development

New development should be sited to:

1. Be compatible with the historic settlement pattern;
2. Maintain functional integrity of deer wintering yards and wildlife corridors;
3. Be cost efficient for municipal services;
4. Conserve the agricultural potential of primary agricultural soils by
 - a) Keeping primary agricultural soils available for agricultural production unless the only economically viable use of the land would be from incompatible uses.
 - b) Utilize creative planning and design to minimize the reduction of agricultural potential.

Designing New Development

New development - particularly large residential development - should be designed to:

1. Avoid overloading public facilities and services;
2. Be compatible with desired habitat conditions and public outdoor recreation;
3. Take advantage of opportunities to enhance and/or restore habitats by establishing native vegetative diversity or provide other wildlife benefits;
4. Mitigate the effects of proposed actions on identified archeological sites;
5. Be compatible with the qualities that make historic areas, structures or site significant;
6. Protect the community trail system from activities which would unduly compromise desired trail experiences and uses;
7. Promote the design, siting and construction of buildings and structures that are energy efficient and minimize the need for costly energy sources;
8. Incorporate the following visual elements:
 - a) Unobtrusive heights of buildings
 - b) Vegetative screening
 - c) Preservation of native vegetation
 - d) Unobtrusive location of utilities
 - e) Minimal alterations to topography

Unlike regulatory tools, the above are not, in their general application, mandatory, and are not intended to be strictly adhered to in every case; these are general guidelines for growth.

Goals, Policies, Recommendations

Goals

1. Wise selection and use of both regulatory and non-regulatory implementation tools that will protect Granville's current desirable attributes as well as ensuring desirable change.

Policies

1. The Town shall participate in Act 250 proceedings and/or Public Utility Commission hearings to defend the goals, policies, and/or recommendations in this Plan.

Recommendations

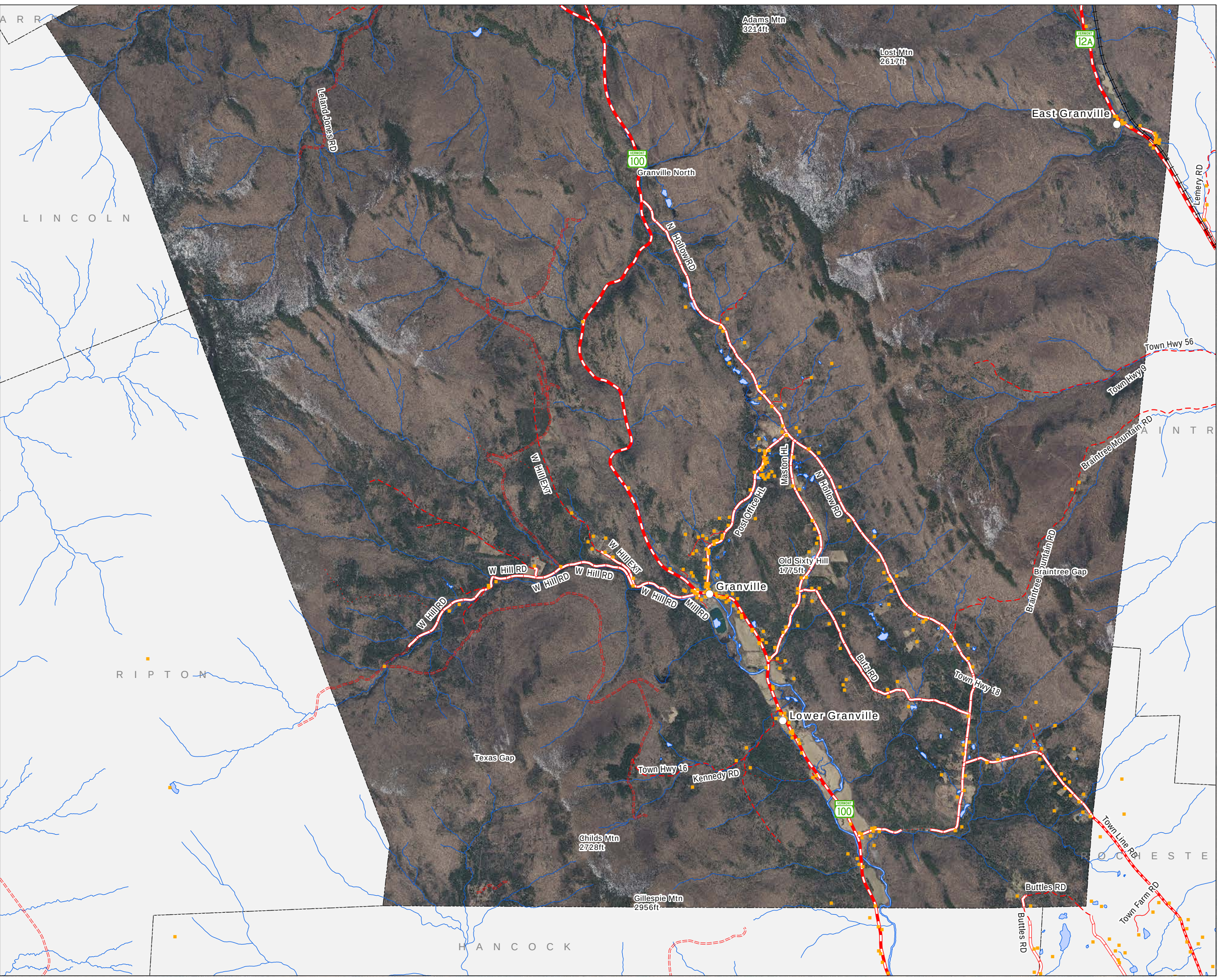
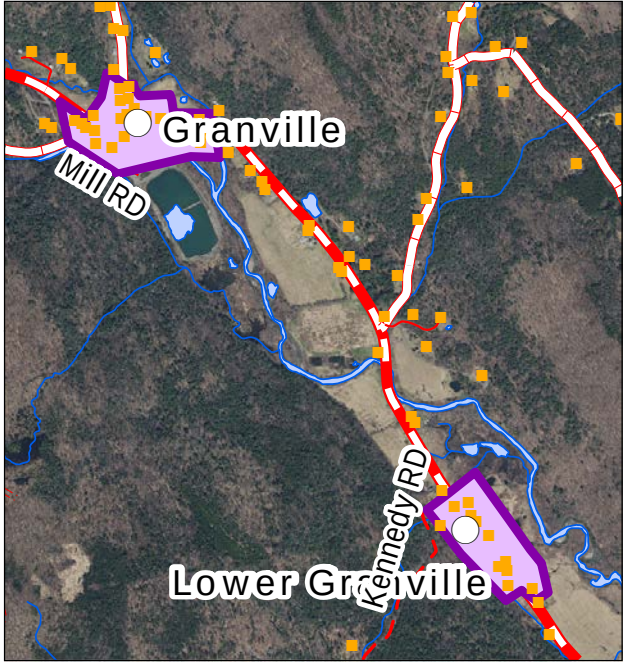
1. Adoption of a Telecommunications Ordinance that will protect Granville from undesirable cell tower and/or other telecommunications projects.
2. Establishment of a Capital Budget Committee to work with the Select Board to develop a Capital Improvement Program for formal adoption.

Current Land Use
Granville, Vermont
Town Plan
Map 1 of 7

Adopted November 13, 2019

- VT route/TH cls 1
- TH cls 2
- TH cls 2 gravel
- TH cls 3
- TH cls 3 gravel
- TH cls 4
- trail
- private
- US route
- US interstate
- VT forest hwy
- railroad
- public lands
- eSites
- Designated Village Center

1:45,000
1 inch = 3,750 feet
0 0.5 1
Miles



Future Land Use
Granville, Vermont
Town Plan

Map 2 of 7

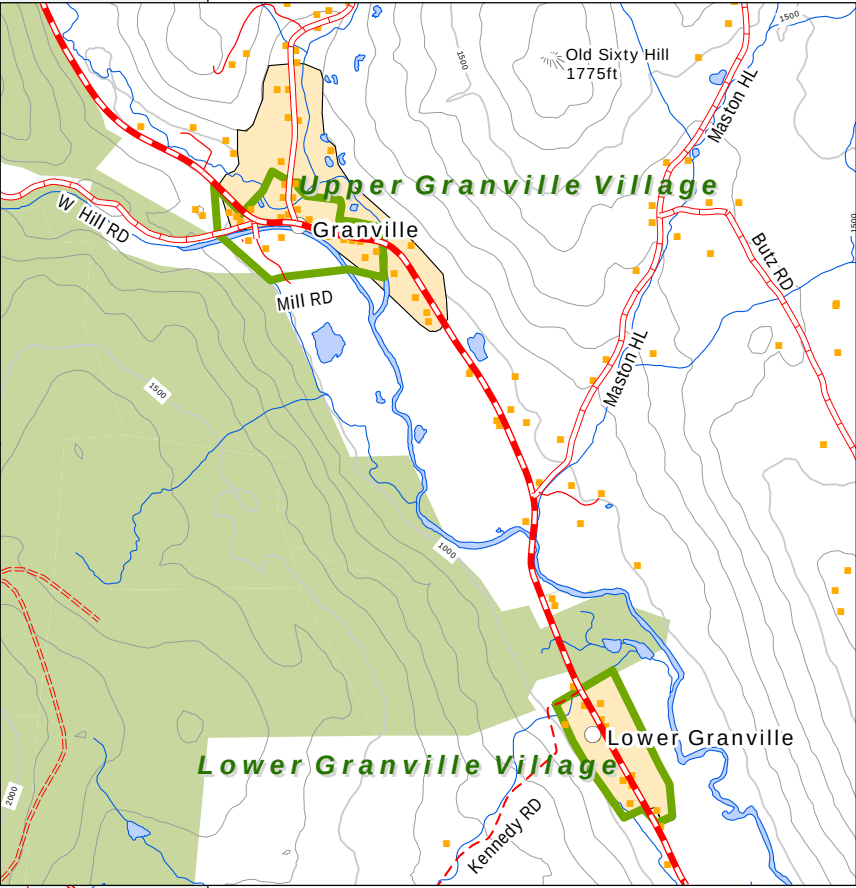
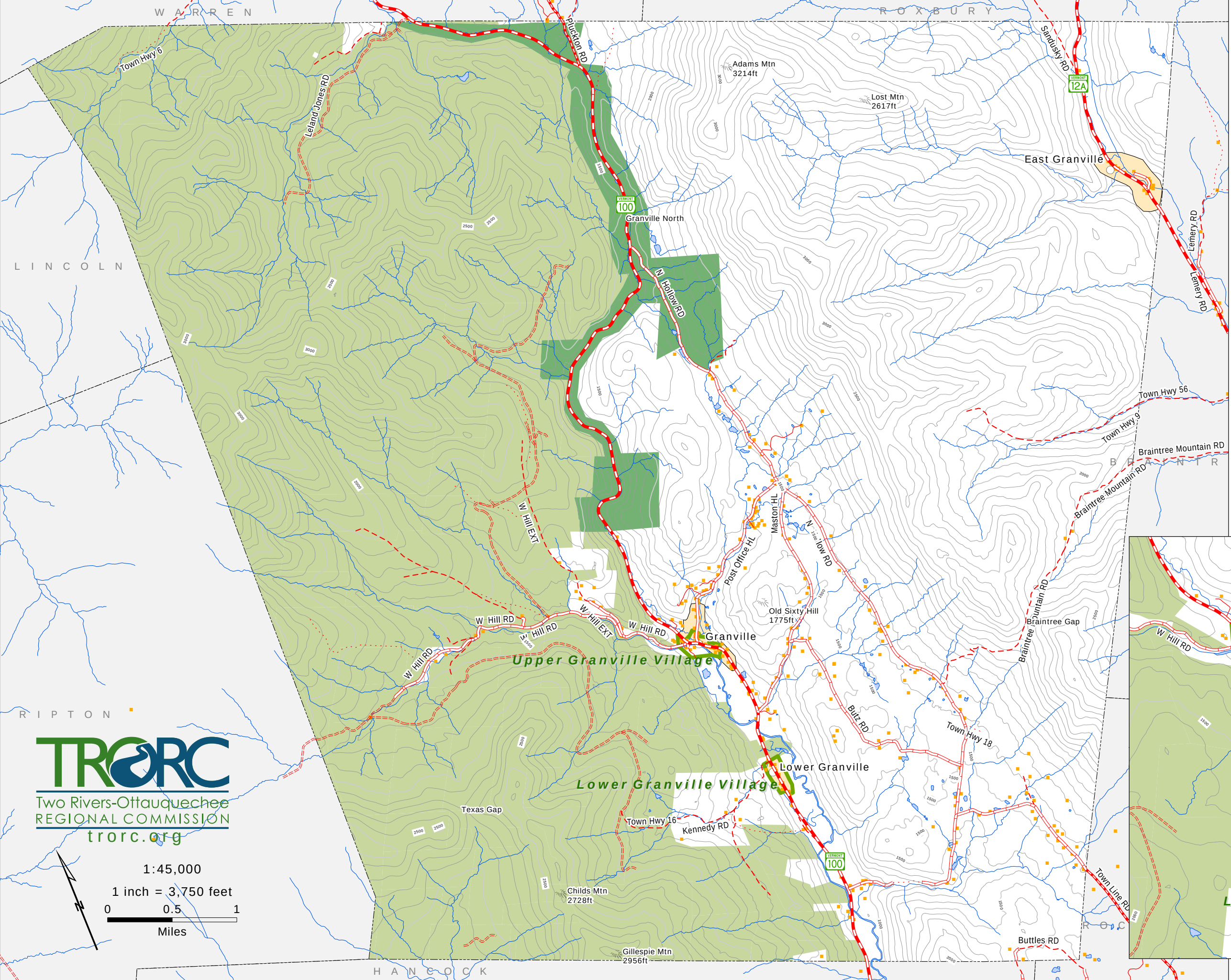
Adopted November 13, 2019

- VT route/TH cls 1
- TH cls 2
- TH cls 2 gravel
- TH cls 3
- TH cls 3 gravel
- TH cls 4
- trail
- private
- US route
- US interstate
- VT forest hwy

- eSites
- VT designated villages

Future Land Use Areas

- villages
- rural
- public lands



TRORC
Two Rivers-Ottawaquechee
REGIONAL COMMISSION
trorc.org

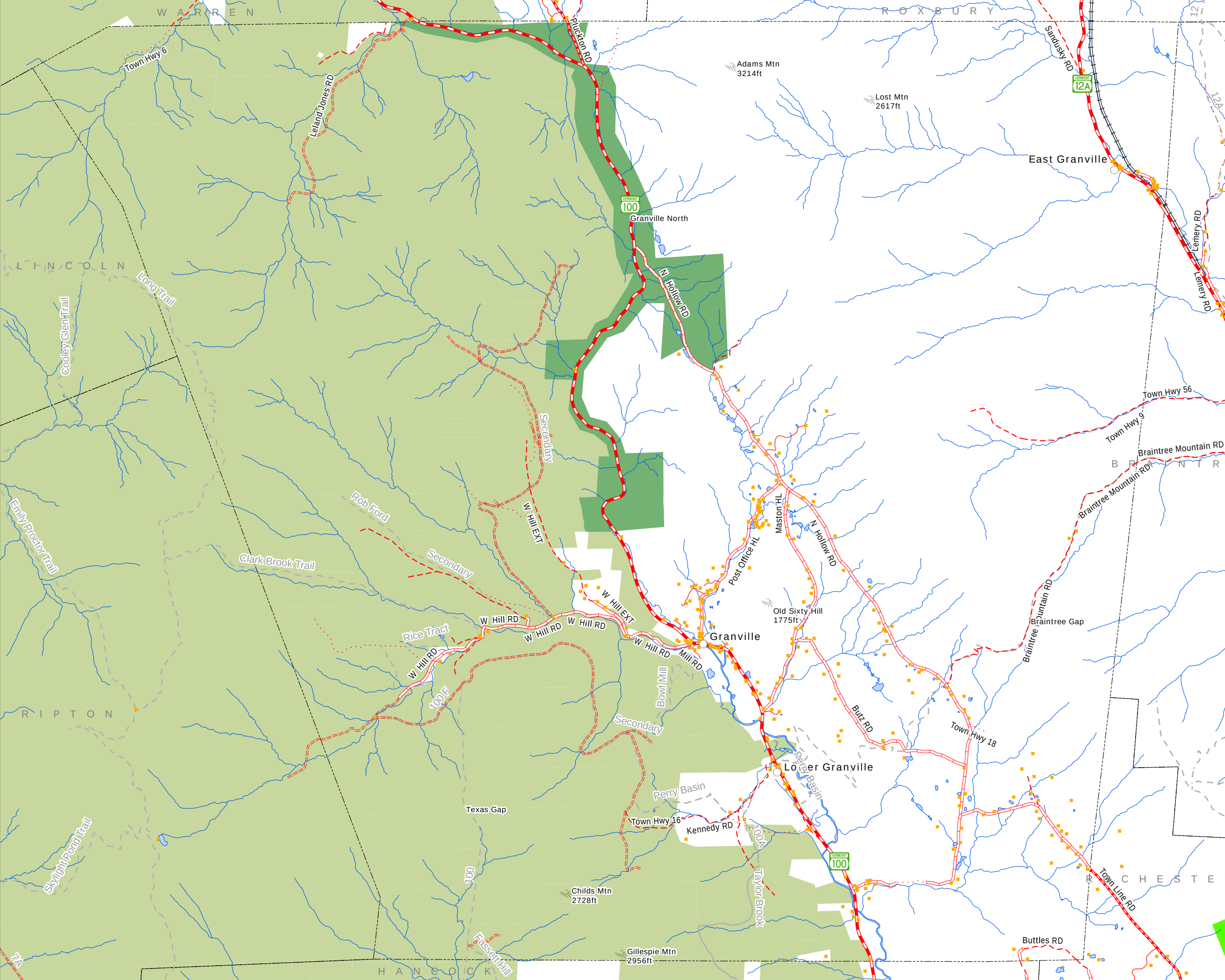
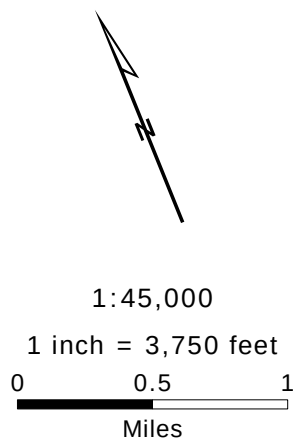
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1 inch = 3,750 feet
0 0.5 1
Miles

Transportation
Granville, Vermont
Town Plan

Map 3 of 7

Adopted November 13, 2019

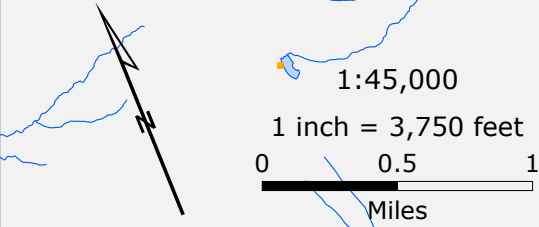
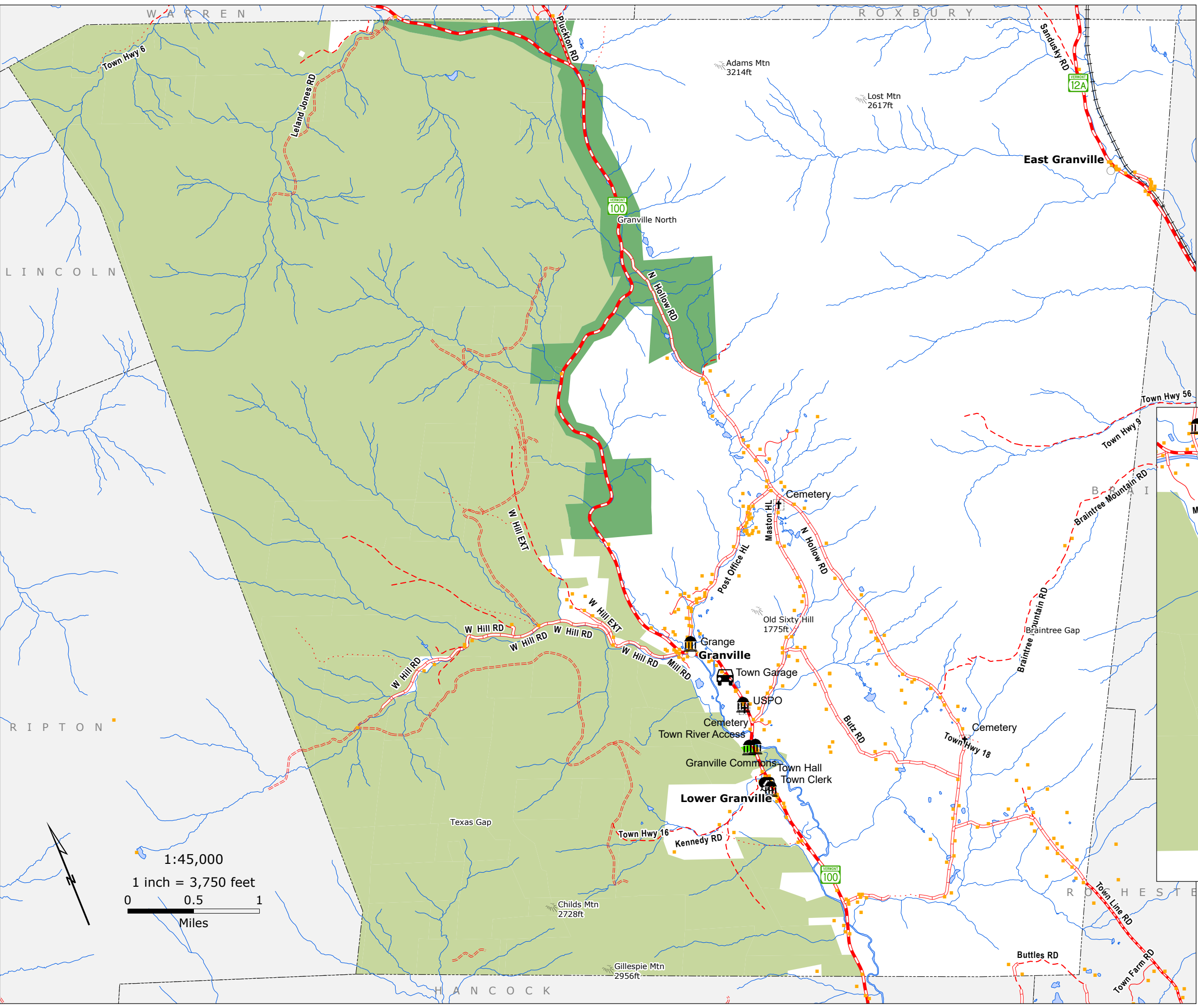
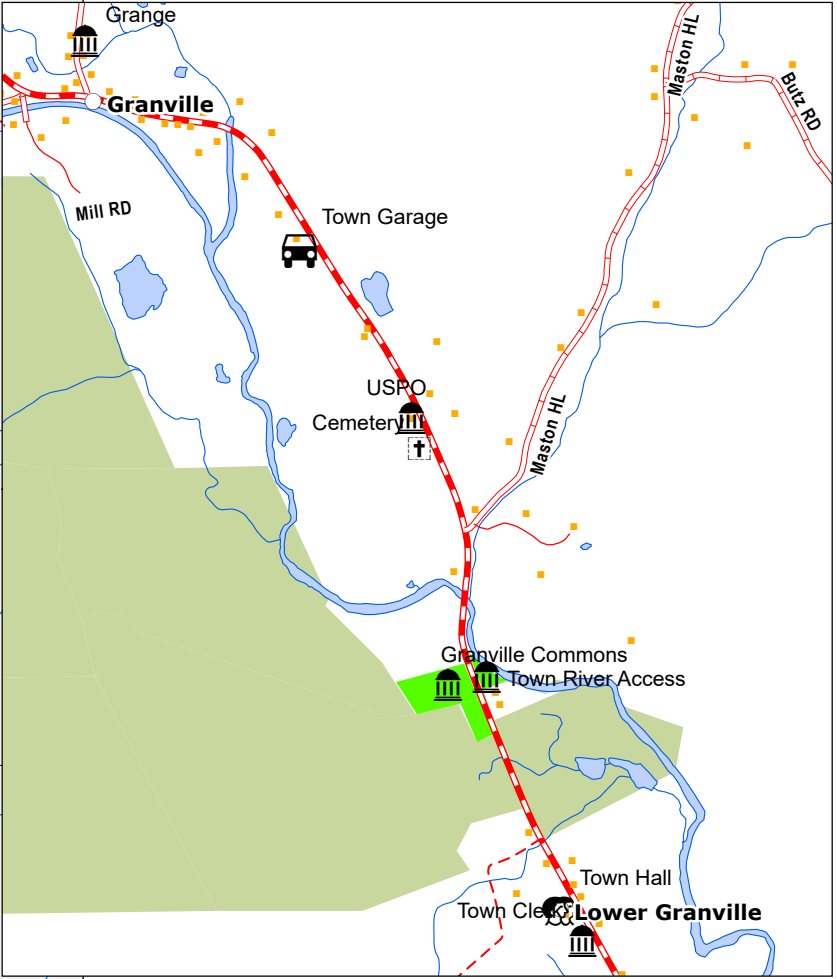
- VT route/TH cls 1
- TH cls 2
- TH cls 2 gravel
- TH cls 3
- TH cls 3 gravel
- TH cls 4
- trail
- private
- US route
- US interstate
- VT forest hwy
- railroad
- eSites



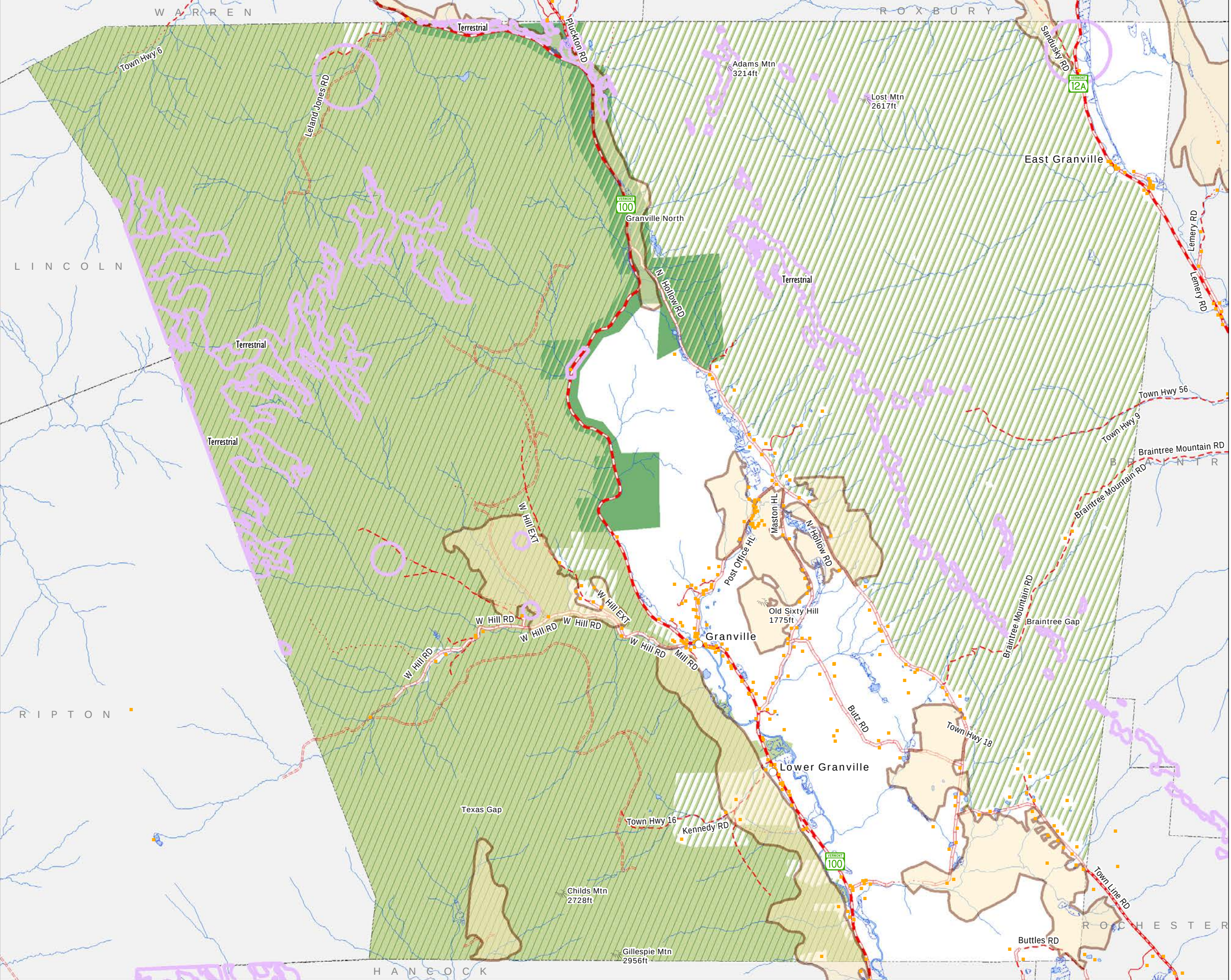
Utilities & Facilities
Granville, Vermont
Town Plan
Map 4 of 7

Adopted November 13, 2019

- VT route/TH cls 1
- TH cls 2
- TH cls 2 gravel
- TH cls 3
- TH cls 3 gravel
- TH cls 4
- trail
- private
- US route
- US interstate
- VT forest hwy
- railroad
- eSites

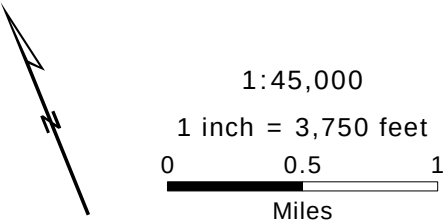


Natural Resources
Granville, Vermont
Town Plan
Map 5 of 7



- VT route/TH cls 1
- TH cls 2
- TH cls 2 gravel
- TH cls 3
- TH cls 3 gravel
- TH cls 4
- trail
- private
- US route
- US interstate
- VT forest hwy
- surface water
- deer wintering yard
- endangered species
- Highest priority forest blocks
- eSites
- state wetlands

Adopted November 13, 2019



Granville Forest Blocks (a)

Map 6 of 7

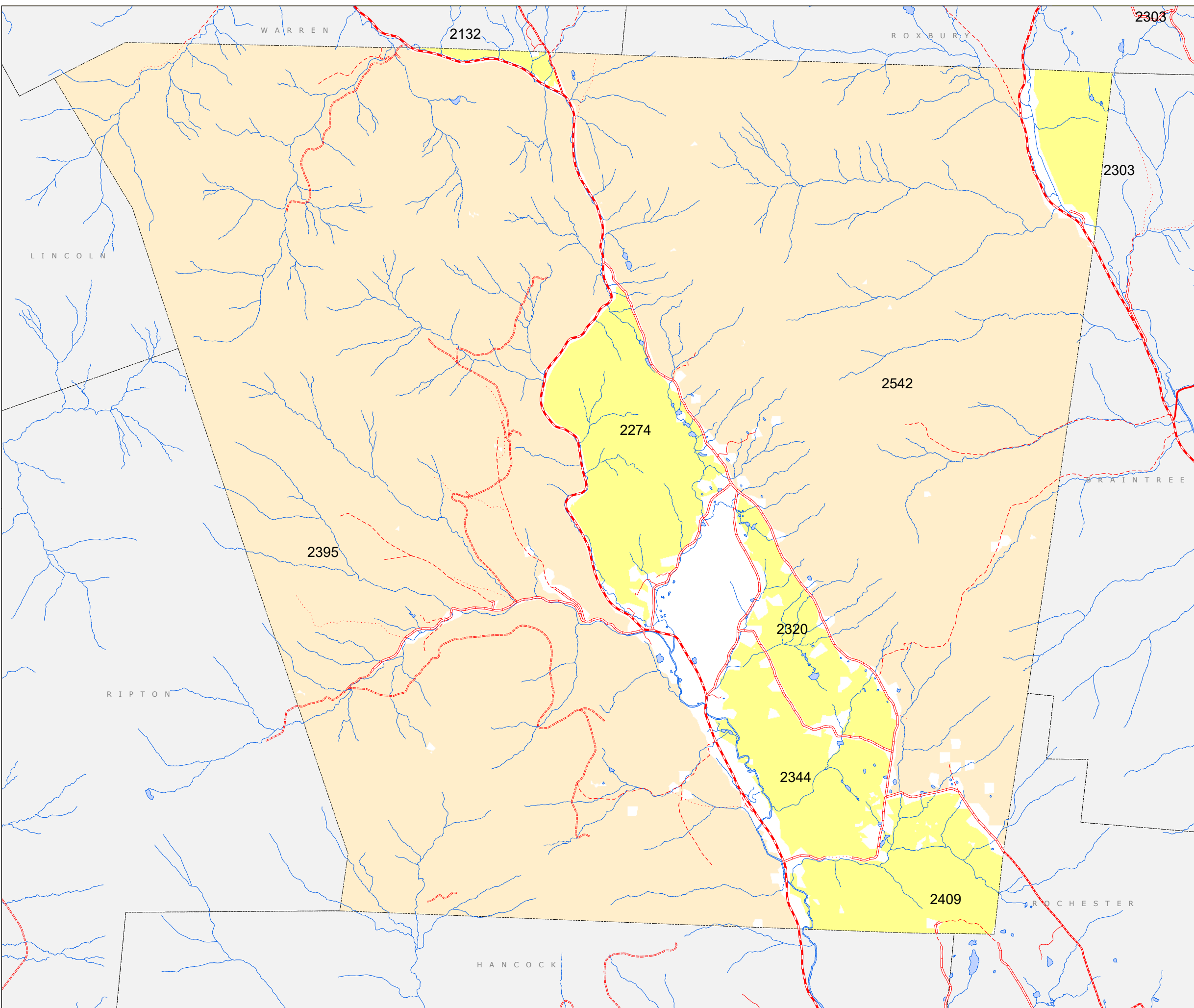
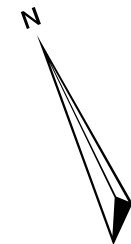
Adopted November 13, 2019

- VT route/TH cls 1
 - TH cls 2
 - TH cls 2 gravel
 - TH cls 3
 - TH cls 3 gravel
 - TH cls 4
 - trail
 - private
 - US route
 - US interstate
 - VT forest hwy
-
- VCD1a - Highest Priority Interior Forest Blocks
 - VCD1b - Priority Interior Forest Blocks

1 inch = 4,167 feet

1:50,000

0 0.5 1
Miles



Granville Forest Blocks (b)

Map 7 of 7

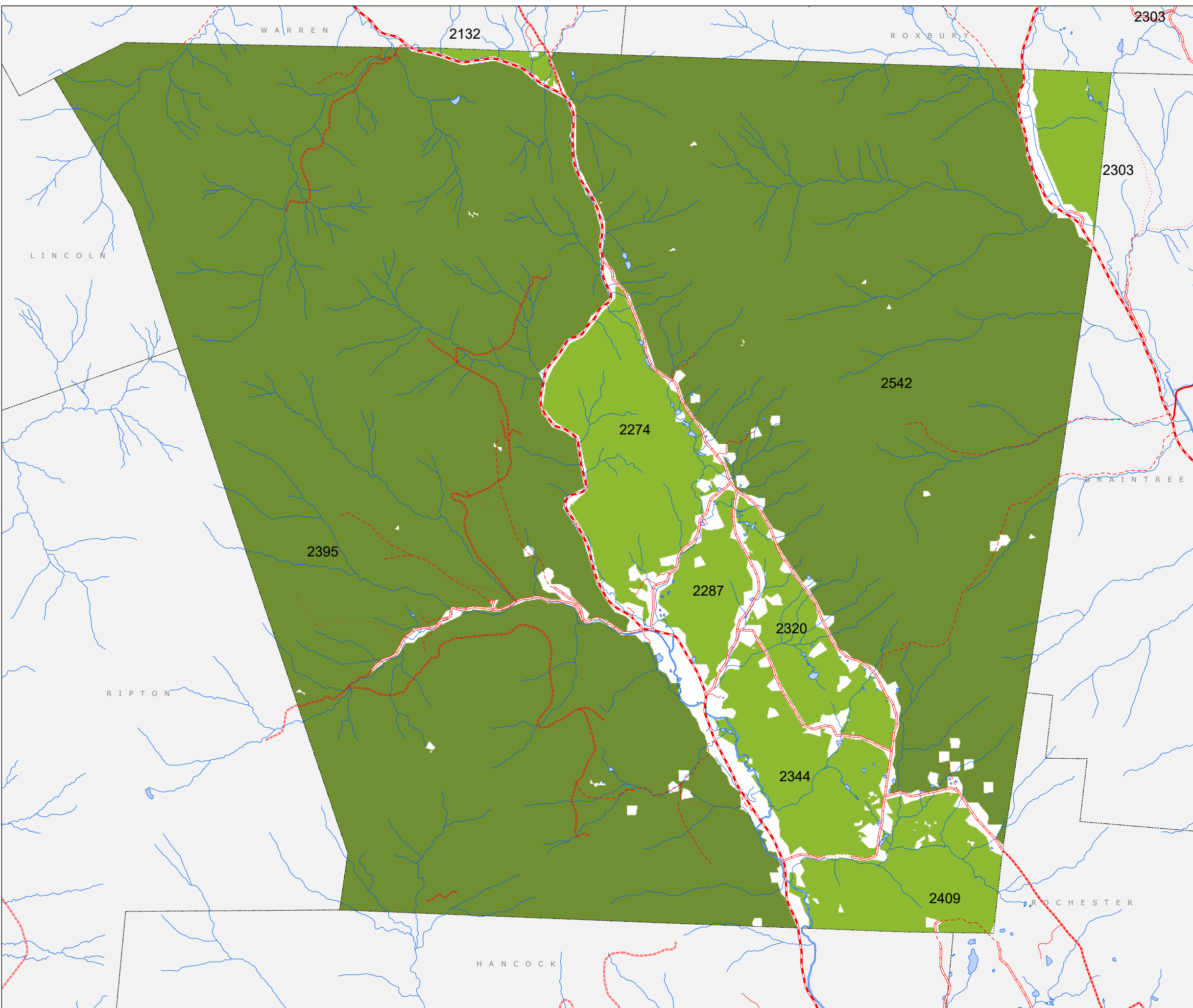
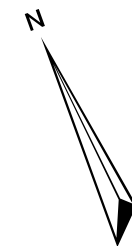
Adopted November 13, 2019

- VT route/TH cls 1
- TH cls 2
- TH cls 2 gravel
- TH cls 3
- TH cls 3 gravel
- TH cls 4
- trail
- private
- US route
- US interstate
- VT forest hwy
- VCD2a - Highest Priority Connectivity Blocks
- VCD2b - Priority Connectivity Blocks

1 inch = 4,167 feet

1:50,000

0 0.5 1
Miles



GRANVILLE BUSINESSES

Name of Business	Founder/Owner
<u>ANIMALVILLE MUSIC PUBLISHING</u>	Roger Stauss
<u>ANIMALVILLE RECORDS</u>	Roger Stauss
<u>BEN SMITH ELECTRIC</u>	Benjamin A. Smith
<u>BENEDICT BUILDING & REMODELING, LLC</u>	Kevin B. Benedict
<u>BREADLOAF INN LLC</u>	Erika Linskey
<u>CENTRAL VERMONT AUCTIONEERS</u>	Danial Sargeant
<u>CLARK BROOK DESIGNS</u>	Rachel Grigorian
<u>CLEARFIELD FARM LLC</u>	Melissa Kosmaczewski
<u>CORA BALL</u>	Rachael Miller
<u>CORNER SCHOOL RESOURCE CENTER OF GRANVILLE, INC. (THE)</u>	Kathryn Y. Stauss
<u>EARTH MANAGEMENT AND MAINTENANCE INC.</u>	Dennis Demers
<u>EARTH'S KNIGHT SALVAGE AND RECYCLING</u>	None
<u>GOOD LIFE CARPET CLEANING LLC</u>	Nathan Reinhold
<u>GRANVILLE COUNTRY STORE</u>	Danial Sargeant
<u>GRANVILLE MANUFACTURING COMPANY INCORPORATED</u>	Jeffrey R. Fuller
<u>GRANVILLE VOLUNTEER FIRE DEPARTMENT</u>	Danial Sargeant
<u>GRANVILLE VOLUNTEER FIRE DEPARTMENT, INC.</u>	Danial Sargeant
<u>GRANVILLE WOOD PRODUCTS, LLC</u>	Jeffrey Fuller
<u>GREEN CAN LLC</u>	Rachael Miller

<u>INNERSPACE DESIGN</u>	Diane Eramo
<u>KATIES KOLLARS</u>	Richard Lee
<u>KINGSWOOD BUILDERS, INC.</u>	Sean Linskey
<u>LAND VENTURES, LLC</u>	Jeffrey Fuller
<u>LYNE, LLC</u>	Rachael Miller
<u>MAID 2 SHINE, LLC</u>	Jessica Smith (js)
<u>MORNING STAR CUPBOARD AND...</u>	Brenda A. Borowski
<u>MY MOUNTAIN MENAGERIE</u>	Nancy A. Needham
<u>NOTEWORTHY STUDIOS, INC.</u>	Roger Stauss
<u>OPEN HEARTH PIZZA</u>	Chris Jones
<u>PANZER METAL WORKS</u>	Christopher Burgess
<u>PRIORITY ENTERPRISES</u>	Stephen Mishkit
<u>RICHARD LANPHER PLUMBING AND HEATING, LLC</u>	Richard Lanpher
<u>ROADKILL GARAGE</u>	Danial Sargeant
<u>S. WERNER CONSTRUCTION INC.</u>	Steven G. Werner
<u>SAGE AND SCAVENGER</u>	Crystal Thomas
<u>SKIP TO MY LOU MY DEAR</u>	Amanda Close
<u>SNUGGERY, INC. THE</u>	Bruce Hyde
<u>STEVE TWITCHELL LAWN CARE</u>	Steve Twitchell
<u>THE GRANVILLE BOWL MILL</u>	Jeffrey Fuller
<u>TWITCHELL'S CLEANING SERVICE</u>	Nancy M. Tate-Beattie
<u>VERMONT ELECTRICAL SERVICES, LLC</u>	Craig Peterson