

GROTON, VERMONT Town Plan



Adopted on August 6, 2009



Fall Foliage Day in Groton, October 2008

Groton, Vermont Town Plan

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Lake Groton

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October 2008 Fall Foliage Parade

INTRODUCTION

A town plan helps define a community in laying out a general direction for future development by identifying local needs and desires. Its primary purpose is to encourage appropriate development of land in a manner that will promote public health, safety, prosperity, efficiency, economy and general welfare of the town's citizens.

The spirit of this document is to enhance local control. It also encourages the most desirable and appropriate use of land, works to minimize the adverse impact of one land use upon another and reduces undesirable conditions. This document provides the conceptual framework for future zoning bylaws and subdivision regulations as well as other planning activities such as budgeting and capital improvements like water and wastewater infrastructure projects.

A town plan is intended as a policy document to be considered by the District Environmental Commission and the State Environmental Board in their hearings under Act 250, the development law of the State of Vermont. Furthermore, under Vermont statutes, the plan is required to guide revisions to zoning and subdivision regulations. This plan has been prepared in accordance with *Title 24 VSA, Chapter 117, Sections 4302, 4325, 4381 and 4382.*

The task of the Planning Commission was to pull together information and write a document that reflects the vision and goals of the people who live in Groton. Adoption of a plan represents a community decision about the town's future character, its priorities for land use, conservation of physical resources and the encouragement of well-considered, responsible development.

A town plan must include the following elements pursuant to *Title 24 VSA, Chapter 117, Section 4382:*

1. A statement of objectives, policies and programs of the municipality to guide the future growth and development of land, public services and facilities, and to protect the environment;

2. A land use plan, consisting of a map and statement of present and prospective land uses;
3. A transportation plan, consisting of a map and statement of present and prospective transportation and circulation facilities;
4. A utility and facility plan, consisting of a map and statement of present and prospective community facilities and public utilities;
5. A statement of policies on the preservation of rare and irreplaceable natural areas, scenic and historic features and resources;
6. An educational facilities plan consisting of a map and statement of present and projected uses and the local public school system;
7. A recommended program for the implementation of the objectives of the development plan;
8. A statement indicating how the plan relates to development trends and plans for adjacent municipalities, areas and the region;
9. An energy plan, including an analysis of energy resources, needs, scarcities, costs and problems within the municipality;
10. A housing element that shall include a recommended program for addressing low and moderate income persons' housing needs.

Each section of the plan includes a brief synopsis of current trends, identifies issues and recommends actions to help guide the town's decisions. It attempts to identify the areas and resources which possess economic, historic, natural and scenic value and attempts to set reasonable priorities where two or more uses or values may conflict.

Statement of Goals and Objectives

Groton has a rich history of Yankee independence based on self reliance and the Constitution of the State of Vermont. A strong sense of community has held the town together for generations and makes Groton different from other Vermont towns. Groton is small, where everyone knows and cares about each other. In order to concentrate municipal services and use our resources most efficiently, the primary emphasis of future policies should be to maintain the rural economy based on the wise use of the natural resources of forests and farms, encouraging the growth in the village center.

In the future, those events that are important to fostering the community of Groton shall be encouraged. These include the chicken barbecues, the fall foliage festival, music in the park, the town picnic, holiday festivities, the summer growers' markets, the winter indoor markets and recreation activities in and around Groton State Forest.

The future development of Groton should be orderly and consistent and within the framework set forth by this document. The town's existing zoning bylaws shall be enforced equally and justly and shall be reviewed and amended as needed. Future

bylaws and regulations shall be discussed in a public forum and shall represent the best interests of our town.

Planning Goals

1. Review and update zoning bylaws to reflect the desired and planned development for Groton.
2. Explore and adopt subdivision regulations to shift control of development into local hands.
3. Improve the overall condition of the forests through landowner education and enforcement of existing guidelines.
4. Encourage compact development in the village center.
5. Maintain and enhance the number of farms and farmland.
6. Maintain and improve the existing road network.
7. Encourage alternate forms of transportation such as park-and-rides and public transportation.
8. Maintain and improve the water quality found in Groton to ensure adequate and safe drinking water.
9. Ensure adequate and safe sewage disposal.
10. Maintain and improve Groton's municipally owned properties.
11. Recognize the important economic and social role recreation plays in Groton.
12. Maintain and enhance the diversity of species found in Groton.
13. Recognize and preserve our scenic and natural areas.
14. Encourage new businesses and services that enhance the economic potential of our renewable natural resources, recognizing that tourism and recreation are economic resources.
15. Support public education and provide the necessary tools, programs and resources so that our teachers may provide our children with a high quality education.
16. Work with the surrounding communities to ensure consistent development within our region.
17. Promote a reduction in dependence upon non-renewable energy resources by encouraging conservation and the use of local, renewable energy resources.
18. Maintain a variety of housing options in Groton.
19. Maintain the historic character of Groton's buildings.

Town Overview and History

(Adapted from *Groton State Forest History Guide*,
Vermont Agency of Natural Resources)

Groton is a rural town located in the southwestern corner of Caledonia County. Our town is probably best known for the large area of public lands in Groton State Forest and for the large area of undeveloped forestland and lakeshore. But Groton is much more than a public recreational playground. We have a rich history of Yankee pride and independence, of families cultivating the soil and reaping a harvest and of serving our country in public life and military service.

The Abenaki are known to have camped and hunted in Groton, although there is little record of their presence. Soldiers and explorers, often with Indian guides, also passed this way, using Groton as portage area between the Winooski and Connecticut Rivers.

When Groton was in a grove of towering trees, it was probably logged by early settlers. Maybe a poor immigrant tried and failed to farm the rocky soil typical of the forest. In the 1800's, Groton saw the dramatic rise and fall of the railroad and logging activities. But the tradition of camping along the ponds, begun in prehistoric times, has endured.

During the French and Indian Wars, Groton was visited by hunting bands of Indians and raiding parties of both English and French. As early as 1704, the area's network of ponds, brooks and rivers was the route the French and Indians used to carry over 100 captives from Deerfield, Massachusetts north to Canada.

Groton was a rugged wilderness then. Mountain lions, timber wolves and lynx roamed the hills. There were no permanent settlers in Groton until after the American Revolution. Veterans of that war, along with many ambitious youths from lower New England, moved north to Vermont. These pioneers sought water and trails for transportation, land suitable for farming and available resources for building. Groton was settled early, being accessible to the Connecticut and Wells Rivers.

Captain Edmund Morse, one of the first settlers in Groton, arrived in 1783. Morse built the town's first saw and grist mill on the outlet of what is now called Ricker Pond. A sawmill was in operation on this same site until the early 1960's. Captain Morse also built the first frame house and was the town's first blacksmith and military captain.

Chartered in 1789, Groton received its name because many of its settlers were from Groton, Massachusetts. The Massachusetts town had been named after Governor John Winthrop's mansion in England. This pattern of naming villages was prevalent in colonial times.

The land outside the village was left as "wild land," being too rocky to farm. This

region was heavily forested with spruce, hemlock, beech, birch, maple and white pine. Local farmers cut the tree-covered hillsides for fuel, lumber and the making of potash. Through the years, the main industry was logging. Sawmills operated at about twelve different sites in the town of Groton.

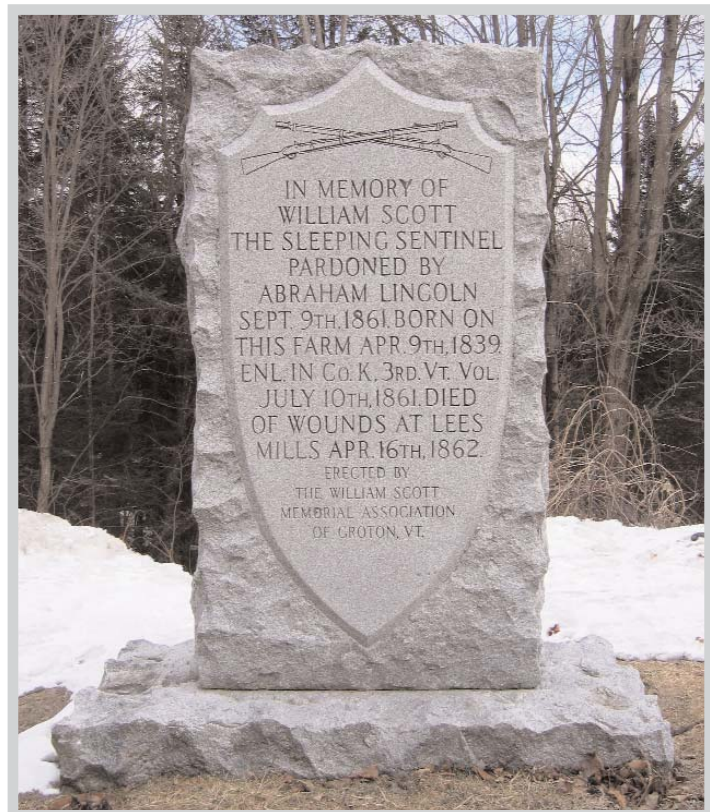
The Montpelier and Wells River Railroad, completed in November of 1873, gave Groton's sawmills easy access to a wood-hungry market. Within a few years, new mills sprang up and old ones were enlarged to meet the demand for lumber. The railroad, a connection between the Central Vermont Railroad and the Boston and Maine system, was for many years the only access to the ponds.

The railroad opened the area to another kind of settler - the seasonal camper. The earliest camps along the shores of Groton Pond date to 1894. Within the next ten years it was an established practice for local Vermonters to spend July 4 to Labor Day by the pond. Camps were opened again in late fall for hunting. Disembarking at either Lakeside Station or the Rocky Point Flag Stop, the campers would take a boat to their cabins on distant shores. Then, as now, swimming, boating, hiking, fishing and berry-picking were the main forms of recreation.

The State of Vermont bought its first tract of land here in 1919 and has continued to enlarge its holdings. Today, the state forest is 26,368 acres. The Civilian Conservation Corps (CCC), a government work program during the Great Depression of the 1930's, was instrumental in park and campground development in Groton State Forest. The main forest road (Route 232) was started by the CCC. The Corps also planted trees and built hiking trails, picnic shelters and stone fireplaces.

In the early 20th century, Groton enjoyed an affluent but short-lived period of expansion due to the granite and woodworking industries. Granite mining increased the town size slightly and created a time of local prosperity; but in the 1940s, all the quarries had been abandoned because of the grade of granite.

Since World War II, farming, lumbering and granite quarrying have decreased or died away and Groton has become a residential town with many workers traveling to other towns to work.



William Scott Memorial on US Route 302

LAND USE

Groton State Park and Groton State Forest

(Much of the text of this section was adapted from State of Vermont's Agency of Natural Resources Long Range Management Plan of the Groton Management Unit dated August 2, 2008).

The Groton State Forest is a four-season multi-use area. Recreational opportunities in the area are extensive, ranging from developed facilities and organized activities to dispersed recreational areas. Recreational uses in the Groton State Park and Forest include hiking, sightseeing, leaf peeping, biking, horseback riding, snowmobiling, cross-country skiing, snowshoeing, fishing, hunting, trapping, rock climbing, winter camping, primitive camping, metal detector use and geocaching. Weddings, family reunions, business picnics and documentary films have all also taken place in this recreational treasure.

The Groton State Park and Forest is just over an hour's drive from Chittenden County, the most densely populated area in Vermont, less than three hours from the Montreal metropolitan area and within a day's drive of more than 30 million people in southern New England and the Mid-Atlantic states. The accessibility of Groton State Forest and other state lands in this area to so many people will make this land area a popular destination in the future for Vermonters and out-of-state visitors alike.

State Parks within Groton State Forest

Within the 26,368 acres of the Groton State Forest is the largest concentration of state park facilities anywhere in Vermont. These include: Boulder Beach, Big Deer, Kettle Pond, New Discovery, Ricker Pond, Seyon Ranch and Stillwater.

There is also a number of other facilities managed by one of the state parks, including Osmore Pond Picnic Area, Owl's Head Lookout and the Groton Nature Center Overlook.

The state parks are staffed and operated for public enjoyment mainly from mid-May

through Labor Day or Columbus Day. During the other times of the year, park lands and facilities are available for day use and camping; however, there are no bathrooms or water available, and visitors have to walk into the parks from the entrance gates.

The town should approach the state land managers to ask for reduced entrance fees or free access to the Groton State Parks and Forest lands for residents of Groton. The state provides a free season-pass to the Groton Public Library. The pass can be signed out for use by Groton residents. There is also the Green Mountain passport for seniors, which allows free access to all state park programs. These passports may be purchased from the town clerk for a small fee.

Groton Nature Center

The Groton Nature Center is the interpretive area for the entire Groton State Forest. Daily programs are scheduled from mid-June to Labor Day. There is one large Interpretive Center/Museum and a self-guided nature trail. The Nature Center parking lot is also the trailhead for trails throughout Groton State Forest. In the winter, the parking lot is plowed for skiers and snowshoers.

Lake Groton

Lake Groton (422 acres) is long and narrow in shape and lies in a north-south direction. It is approximately two-and-a-half miles in length, about a half mile wide. Lake Groton has a maximum depth of about 35 feet. The lake is popular for all types of water-based recreational activities and has two state parks and approximately 140 residences (camps and year round homes) on its shoreline. The Town of Groton owns property adjacent to the dam at the south end of the lake.

Kettle Pond

Kettle Pond (109 acres) is in the northern portion of Groton State Forest close to VT Route 232. Kettle Pond is long and narrow in shape lying in an east-west direction.

Ricker Pond

Ricker Pond (95 acres) is in the central portion of Groton State Forest along VT Route 232 just south of Lake Groton. Ricker Pond State Park is on the western edge of the pond, which runs in a north-south direction.

Noyes Pond

Noyes Pond (39 acres) is located in the southern section of Groton State Forest at Seyon Ranch State Park. It is wholly within Groton State Forest, and the shores are mainly undeveloped except where the park facilities are located on the eastern shores of the pond.

Fish and Wildlife Based Outdoor Opportunities

Hunting, fishing and trapping are important outdoor activities, both culturally and economically in Vermont. These activities, in regulated seasons, provide for the sustainable utilization of fish and wildlife resources statewide. Currently 30% of Vermonters fish or hunt (over 86,000 hunters and trappers and 121,900 anglers). Recent (2002) surveys indicate that Vermont is second only to Alaska in per capita participation by the public in hunting, fishing, trapping, feeding and observing wildlife.

Timber Resources

The Groton State Forest, with the exception of small acreages within the Butterfield and Marshfield blocks, has historically supported an uninterrupted flow of timber products. Aside from these two areas, the landscape is littered with cobbles and medium- to large-size boulders, which make agriculture next to impossible. As a result, the area has supported a continuous forest cover. In addition, the high cost of constructing access roads has largely restricted development, leaving large acreages of remote timberland. This forest has progressed through various cutting cycles over the past 200 years; the last period of large-scale, intensive harvesting ended in the early 1900's.

Wildlife Habitats and Species

The Groton State Park and Forest offers a wide spectrum of habitat types ranging from high elevation habitats on the summits of Butterfield (3,166 feet) and Signal Mountains (3,348 feet) to the wetlands associated with the Peacham Bog Natural Area. The diversity of habitat types has been identified through the natural community mapping process.

Cultural Resources

Due to the size of the Groton State Forest and the rich history of the area, the number of historical and cultural sites is large. They range from cellar holes and mill sites to the remnants of the Civilian Conservation Corps camp and their work.

Relationship to the Regional Context and Other Planning Efforts

Groton recognizes the value of the forestland. As a large public landholding in a region with increasing pressure from private development, the Groton State Forest fills a unique role in meeting the objectives of Groton's town plan. The Forest provides some key resources and experiences not found on private land. As lands bordering the Park and Forest continue to experience development, the forest will come under pressure to provide biodiversity, recreation and an economic stimulus to the region. The property should be managed to maintain natural communities and water quality, to provide high quality wildlife habitat and forest products and, at the same time, provide a wide variety of recreational experiences.

Nonindustrial Forestland

The land area of Groton that is not included in the Groton State Forest is an important component of the town. Groton properties enrolled in the Vermont Current Use Program amount to 8,065.99 acres. Those and others not enrolled are an important economic multifaceted resource providing employment through the chain of timber extraction, recreation and tourism. Further, they are a source of clean water, carbon sequestration and a magnet for those who choose to live in a rural setting.

The former concerns about the impact of logging have been mostly resolved by logger education and information about Best Management Practices. Groton should consider incorporating the Best Management Practices into local zoning laws.

The town office should provide new landowners with information about forest management, consulting foresters and practices for maintaining water quality on logging jobs in Vermont. Residents also should be advised that they cannot cut trees in the rights of way of town roads without permission of the road commissioner and tree warden.

The "Boy Scout Land," which is about 13 acres at the south end of Lake Groton, was a Certified Tree Farm but has not been recertified for several years. It should be managed as a forest for recreation and selective timber extraction.

The Town of Groton purchased 67 acres on Welton Road to use as a source of gravel. We suggest that we relocate the current stump dump along the Wells River to that parcel and confine it to as small an area as possible. Gravel can then be removed from another area of approximately five of the overall 67 acres. Once the gravel is exhausted from the five acre area, stumps can be deposited to refill the area. The original stump area can be leveled and replanted with trees. It will possibly be seeded by natural regeneration and then may be cleaned to desirable vegetation. This process can be ongoing: dig gravel, fill with stumps, level and replant. This will probably take years to accomplish, but eventually Groton will have a desirable area to utilize as a natural site,

recreational site or multiple use area.

The property where the current stump dump is could be leveled and designated as a Dartmouth-Hitchcock Advanced Response Team (DART) landing zone and possibly a multipurpose recreational area.

Agriculture

Agriculture has traditionally played an important role in shaping the communities of Vermont. This was true in Groton, starting with subsistence farms of the first settlers. They were succeeded by sheep- and then dairy-farms. Over the years, most of Groton's dairy farms have ceased operating as is true with most of Vermont. The number of farms in Groton has increased from five to eight, but there is a diversification in farming, and dairy no longer dominates. As the dairy farms grow farther and farther apart, the cost of milk transportation increases with other costs. Farm equipment dealers are no longer "next door," and the service of equipment is more expensive. Some existing dairy farms have been reduced in size by selling off or deeding portions of land to family. Others will probably sell to another farmer or for the highest price offered without regard to how the land may be used or developed. Just as other diversified types of agricultural practices have started in Groton, farm diversity should be encouraged.

Flash Floods

In the upper watershed areas of Groton, flash floods have become more frequent as more housing is constructed without consideration for water runoff. Groton is fortunate to have a well trained road commissioner who learned to 1. clean the ditches, 2. clean the culverts, and 3. take care of the road, in that order. That training and experience has saved many a road from being washed out by a mini "flash flood." Because Groton remains a rural community, care should be taken to inform new residents of the value of "water bars" on back roads. Many a road has been washed out in Groton because of a citizen filling in a "water bar" to make the road smoother. All culverts in Groton are mapped, and it might be recommended that "water bars" be mapped as well. Zoning bylaws should be updated so that the new construction of roads or driveways will adequately address water runoff management.

Wetlands

Wetlands perform important functions in enhancing water quality, recharging groundwater and providing wildlife habitat. In recognition of their environmental importance, they are protected by the State of Vermont. It should be explained to all Groton residents that the estimated 680-acres of wetlands in Groton are protected.

There are other wetlands on private property, which are as valuable, and their owners should learn to protect them also.

Recreation

Recreation in Groton is separated into four areas,

1. There is recreation in the Groton State Forest and on our various lakes and ponds. This is individual recreation not directed by the Town of Groton.
2. Blue Mountain School District is a recreational and sport haven for the students at the school, their parents and the community.
3. Recreation in the Village of Groton, which is primarily under the auspices of the Groton Recreation Committee.
4. There are also other recreational opportunities including a softball league, Tae-kwon-do and the snowmobile club, The Buckaroos of 302.

The Recreation Committee put on a wide range of events in 2007 and started the year by raising \$3,900 in partnership with the Modern Woodmen's "Dollar for Dollar" program. Those funds went directly to purchasing playground equipment for Veterans Memorial Park. The Recreation Department hosted other fund raising events, and in May, 90 children of all ages attended a fishing derby on Seyon Pond Road. The committee sponsored "Music in the Park," a Star Gazing event and the 3rd Annual Fall Foot Race (5km and 10km), which attracted runners to Groton and the Ricker's Mill Campground.

In September of 2007, in conjunction with the Fall Foliage Day, the 1st Annual Fall Foliage Day Volksmarch attracted 40 walkers. Twenty-four of the walkers attended the Fall Foliage Dinner, which attracted over 900 hungry chicken pie eaters.

The annual Halloween Party transforms the town hall into a masquerade playground. Also, attendees for the caroling, cookie decorating and tree lighting enjoy the town's warmth even in mid-winter.

The committee is seeking grants from private foundations to expand the events in 2009 and beyond. The Groton Planning Commission applauds the effort and accomplishments of the Recreation Committee and encourages participation and support.

Another form of recreation, in addition to hiking, walking, photography, bicycling, riding the back roads in/on various types of vehicles (all terrain vehicles, annual fall tractor parade on dirt roads) is hunting. Many who hunt take great pleasure in walking through the abundant forests of Groton. Many, who do not understand the sport or are concerned about their safety, feel they can protect themselves by posting their land. It has been experienced that the renegade hunters welcome this because it keeps the good hunters away. The best protection for private property is developing a rela-

tionship with people who would like to hunt. Good hunting sportsmen and sports-women can be the best protection for forest landowners.

Finally, we encourage all hunters to ask permission to hunt on private property. Many *No Trespassing* signs are there because landowners want to know who is on their properties.

► Recommendations:

1. Review and amend zoning bylaws to reflect current needs and desires of the town.
2. Explore enacting subdivision regulations.
3. Enforce existing bylaws, and support zoning administrator's actions.
4. Work with the State of Vermont to ensure that Groton's needs and desires are reflected in the state's planning for Groton State Park and Forest.
5. Incorporate Best Management Practices for timber extraction in the town's nonindustrial forestland.
6. Review current use of the stump dump, and change as required.
7. Encourage agriculture in Groton.
8. Encourage small-scale producers of local food.
9. Develop a community garden for town residents.
10. Investigate the use of rain gardens to offset runoff from new construction or land clearing.

Land Constraints

As part of the planning process a map was completed that shows areas with some type of constraint to building. The mapped constraints may not be inclusive, but they give a good idea of the natural and regulated constraints on the land in Groton. There are 35,228 acres in town. The constraints include the following:

LAND AREA BY PERCENT SLOPE		
<u>Slope</u>	<u>Acres</u>	<u>Percent of Total</u>
0 - 15%	17,787	50.5% (includes surface waters)
15 - 20%	7,533	21.4%
20 - 25%	4,495	12.7%
25+%	<u>5,413</u>	<u>15.4%</u>
	35,228	100.0%

LAND AREA CONSTRAINTS		
Surface waters (i.e. lakes, rivers)	812 acres	2.3%
Over 2,500 feet	1,327 acres	3.8%
Deer winter areas	7,447 acres	21.1%
Public lands	13,685 acres	38.7%
Floodplain	1,330 acres	3.8%
Wetlands	680 acres	1.9%

Note: Some of the layers will overlap, so adding up the total will give you an inflated overall figure. The resource constraints map is available in the town clerk’s office. This map indicates many areas that are unsuitable for development. It makes careful planning and revision of the zoning bylaws even more important to ensure that the types of development desirable for Groton have some place to go. Every acre of land in Groton is different from another; some have great development potential while others have less. Land use planning and regulations should consider the natural resources and development potential of the land.

► Recommendations:

1. Consider the information provided on the land constraints map when revising or creating local bylaws.

TRANSPORTATION

Highways

The Town Highway Department services the approximately 39+ miles of town road in Groton. Numbered state highways are maintained by the District #7 Highway Garage in St. Johnsbury with personnel located at the Wells River garage on VT Route 302. The day-to-day operation of the Town Highway Department is the responsibility of the Road Commissioner, an elected official for the Town of Groton. The Highway Department budget is overseen by the Selectboard.

The Town may, at the discretion of the Selectboard, accept new roads into its care only when constructed according to town standards approved April 5, 2001.

The Town Highway Department maintains 6.87 miles of paved roads and 32 miles of dirt roads.

Highways are identified according to their functional classification (major arterial, minor arterial, collector, local street) and according to the state's town highway classification system. The functional classification illustrates the functional roles of highways within the community, whether they are to move people and goods across municipal boundaries or to provide access to residential areas. Communities can use these classifications to plan for future land use. The state classification system, defined in *Title 19 VSA, Section 302*, primarily refers to highway conditions. This system is the basis by which the state allocates highway aid for municipalities. The four classes are:

CLASSIFICATION OF TOWN HIGHWAYS

State Highways	Highways maintained exclusively by the Agency of Transportation: US Route 302 and VT 232. *	15.08 miles
Class #1	Town highways which form the extension of a state highway route and which carry a state highway route number. **	0 miles

Class #2	Town highways selected as the most important highways in each town. As far as practicable they shall be selected with the purposes of securing trunk lines of improved highways from town to town and to places which by their nature have more than normal amount of traffic. These roads are town maintained with state aid.	6.87 miles
Class #3	All traveled town highways other than class 1 or 2 highways. These roads are town maintained with state aid.	25.01 miles
Class #4	Town highways that are not class 1, 2, or 3 town highways or unidentified corridors. Some of these roads are actively maintained by the town.	10.73 miles
Trails	Trails are not considered highways and the town shall not be liable for their construction, maintenance, repair or safety.	Various
<p>* State highway description from <i>Title 19 VSA, Chapter 1: State Highway Law, Section 1: Definitions.</i></p> <p>** Road class descriptions are from <i>Title 19 VSA, Chapter 3: Town Highways, Section 302: Classification of Town Highways.</i></p>		

The town maintains 22 bridges and large culverts along with 418 other smaller culverts.

The road commissioner along with NVDA has identified all culverts and bridges with proposed replacement and rehabilitation to be scheduled with the Vermont Department of Transportation over the next five years. Due to the funding structure, municipalities must participate in the regional transportation advisory committee to be placed on the priority list, which is reviewed yearly, in order to obtain funding from the bridge and culvert program. The road commissioner is currently active in this program.

Storm drainage is now maintained by the Town Highway Department.

The highway department has a capital fund for replacement of vehicles. This fund was established by the voters in March of 1992 with a plan to address future purchases. The budget for the highway department is influenced by climate and the costs of fuel and preventive maintenance, all of which are very volatile.

In order to achieve the goals of a safe highway system, the zoning bylaws must establish regulations regarding access to lots, driveways and parking and loading

areas. In addition, the regulations governing conditional uses must be carefully written so as to significantly reduce any negative impacts on traffic flow and safety.

The town must evaluate Groton highways for their safety conditions, surface conditions and capacity to handle actual traffic volumes during both average and peak periods. The adequacy of the service they provide to land use within the municipality and the region must be carefully considered and the appropriate actions taken. The Vermont Local Roads Program, located at St. Michaels College in Colchester, provides technical assistance to Vermont municipalities on a wide variety of highway-related issues.

A map of Groton's roads can be found in the Appendix.

Airports and Rail

There are no airports in the community, but there are emergency landing pads for the Dartmouth-Hitchcock Advanced Response Team (DHART) at Puffer Field and adjacent to Clark's Landing. The Clark's Landing site is maintained year-round for transport to Dartmouth Hitchcock Hospital. The closest airports for commercial flight are in Burlington and Manchester, New Hampshire.

There is no rail service. The nearest passenger service available is AMTRAK with stations in Waterbury, Montpelier and White River Junction.

Alternative Transportation Plan

A recreational trail, the Cross Vermont Trail, follows the old railroad bed through Groton from Wells River past Marshfield. The trail is guided by the Cross Vermont Trail Association, Inc., which works with municipalities, recreation groups and landowners in the creation and management of a four-season, multi-use trail across the state for public recreation, alternative transportation and awareness of our natural and cultural heritage. When complete, the trail will run from Vermont's western border on Lake Champlain to its eastern border in the Village of Wells River on the Connecticut River.

There is a Park and Ride parking lot at the P & H Truck Stop in Wells River. However, while there may be other places along VT Route 302 that could be used for this purpose, there are no other formally established lots. During the winter months the parking lot at the Upper Valley Grill may be used to park snowmobiles. Future locations for town Park and Ride facilities should be explored.

There are pedestrian facilities along the railroad bed, and there are facilities in the State Forest for camping, hiking, fishing, swimming, boating, walking and biking. Winter activities in these areas include snowmobiling, cross country skiing and snowshoeing.

Sidewalks

Year-round sidewalks provide safe routes for pedestrians in neighborhoods, commercial and industrial areas and community centers. Communities should map all sidewalks and evaluate their conditions. Sidewalks that need improvements or extensions should be identified. Areas not served by sidewalks but needing them should also be identified.

Traffic Calming

There are many ways to handle roadway design, traffic congestion, vehicular speeds, bicycle and pedestrian safety. There is a toolbox of practices and designs commonly referred to as “traffic calming” techniques.

1. Street width reduction through bump-outs, bulb-outs and reducing lane width
2. Street trees to soften the edge and protect the pedestrian
3. Landscaped median strips
4. Roundabouts, mini-roundabouts
5. Street side parking
6. Sidewalks, bike lanes
7. Rumble strips, elevated speed table (speed bumps)
8. Change in pavement color and texture, signage
9. Community gateway
10. Crosswalks with signage
11. Radar activated speed signs

Public Transportation

Groton presently has public transportation provided on a demand response system utilizing lift equipped vehicles, volunteer drivers and car pooling.

Rural Community Transportation, Inc. (www.riderct.com) is the agent for providing transportation services to the elderly and disabled, Medicaid eligible residents, community organizations and service programs, schools and general public.

Public transportation provided in Groton is based on individual needs utilizing state and federal funding resources. Groton contributes the local match in the budget as required in order to receive the state and federal funds to provide the service. The volunteer program through Rural Community Transportation, Inc. is based purely on people’s needs and is provided by volunteer drivers, often in their own vehicles. This

is, therefore, the least expensive means of providing public transportation. However, improvements are required if community's demands for transportation are to be met.

Goal:

To provide a safe and efficient transportation network, which utilizes a variety of modes and is maintained in a cost-effective manner.

Objectives, Policies and Recommendations

Highways

The town highway system should be safe and efficient for vehicular and non-vehicular use, as appropriate, and be maintained in a cost-effective manner.

Policies:

1. Future growth in Groton should occur in areas, and under such conditions, that the demand for increased transportation services will not significantly affect the tax burden for residents.
2. New road construction, whether public or private, must meet town road standards. Zoning bylaws must establish regulations regarding access to lots, driveways and parking and loading areas. In addition, the regulations governing conditional uses must be carefully written so as to significantly reduce any negative impacts on traffic flow and safety.

► Recommendations:

1. Support the Town Highway Department in its ongoing analysis of equipment needs and personnel requirements, taking into account future population growth.
2. Establish regulations and standards for developers who wish to build roads to be maintained by the town.
3. Update zoning bylaws with regard to traffic flow and safety.
4. Evaluate town highways for safety conditions, surface conditions, capacity to handle traffic and volume. Provide necessary repairs to Groton's Bridge #18 on Town Highway #48.

Airport and Rail

Policies:

1. Maintain communications with regional providers of these services.

► Recommendations:

1. Review activities and regional plans with regard to the locations of future facilities.

Alternative Transportation

Policies:

1. Pedestrian and non-vehicular transportation networks must be safe and conveniently located to encourage use.

► Recommendations:

1. Establish and promote park and rides, safe walking trails, safe sidewalks, bicycle trails and in-town usage of bikes and recreational facilities.
2. Identify and establish pedestrian facilities.
3. The rail be should be added to the town highway map as a town trail such that it can be signed as such and its integrity and value to the town preserved.
4. All town rights of way should be signed as such for recognition and use by residents.

Sidewalks

Policies:

1. Provide safe routes for pedestrians in neighborhoods, commercial and industrial areas and community centers.

► Recommendations:

1. Identify existing and enhancement projects in areas of need.

Traffic Calming

Policies:

1. Enhance safety and human experience in neighborhoods, along Main Street, along the town's country roads and in the community in general.

► Recommendations:

1. Identify and develop traffic calming techniques, including reduced lane width and crosswalks in the Village across US Route 302. Work with the State Agency of Transportation to implement these changes.
2. Develop and implement a plan to add trees along US Route 302 for traffic calming and aesthetic appeal.

Public Transportation

Policies:

1. Encourage the use, development and support of public transportation through the coordination, consolidation and elimination of duplicate transportation services.
2. Encourage use of public transportation to reduce congestion and air pollution and to protect the environment.

► Recommendations:

1. Identify car pool routes and commuter routes; identify needs for special services, general public service to design future transportation routes; and identify funding resources, which encourage use of public transportation.



FACILITIES AND UTILITIES

Hospitals

Groton is served by Cottage Hospital in Woodsville, New Hampshire (www.cottagehospital.org), Central Vermont Medical Center in Berlin, Vermont (www.cvmc.hitchcock.org), Northeastern Vermont Regional Hospital in St. Johnsbury, Vermont (www.nvrh.org) and Dartmouth-Hitchcock Hospital in Lebanon, New Hampshire (www.dhmc.org). Both Groton and Ryegate receive services from the Fast Squad, and ambulance services are provided by the Woodsville New Hampshire Fire Department.

Community Building

The Community Building is a combination of town offices, vault and town hall. It is currently valued at \$702,208 and land at \$24,800. The Groton Community Building Addition/Renovation committee is evaluating the Community Building and Fire Station. However, due to the interrelationships between these two projects, the resolution of conflicting program requirements and the need to identify suitable building site(s), the progress has been slow. The Building Committee continues to work to find acceptable solutions to the problems associated with the Community Building. In 2006 at the suggestion of this committee, the town employed the engineering firm of SVE Associates of Montpelier to assess the structural condition of the Community Building and the Fire Station. Copies of the SVE Associates report can be borrowed from the Town Hall.

Fire Department

The current Fire Station (mentioned above under discussion) is evaluated at \$164,574 and land valued at \$25,600. Other fire equipment is valued at \$150,000. The Fire Department maintains four dry hydrants for the benefit of the town.

► Recommendations:

1. The Planning Commission should work with the Fire Department to determine the feasibility of residential sprinkler systems.

Town Garage

The town garage was built recently. It is valued at \$216,000; the old garage is valued at \$25,300 and the property of 3.31 acres is valued at \$31,300. The total equipment value is \$294,221.

Education

Groton, along with the communities of Wells River and Ryegate are part of Blue Mountain Unified School District 21 located at 2420 Route 302 in Wells River. Blue Mountain consists of preschool through 12th grade all under one roof. There are approximately 440 students enrolled at the school. The mission of Blue Mountain Union is to have students prepared to meet the challenges of living and working in diverse and dynamic local and global communities. Therefore, BMU students will be knowledgeable, emotionally and physically fit, civically engaged, involved in the arts, prepared for work and committed to fulfilling personal responsibilities and maintaining economic self-sufficiency.

Water and Wastewater

Citizens of Groton are proud of the hard work that has gone into the revitalization of Main Street. The work of our citizens has brought more people back to the center of town to enjoy social activities such as Music in the Park and the Groton Growers' Market. The efforts have attracted new, low impact, commercial businesses. We realize that a vibrant center and its continued improvement will greatly enhance the quality of life in Groton. In order to achieve future success and build upon our past work, the town will:

1. Conduct a study of the current condition of the water- and wastewater infrastructure,
2. Determine if the infrastructure is a hindrance to further development of the town center,
3. Determine whether the current infrastructure poses a hazard to drinking water supplies and groundwater, including the Wells River, Lake Groton and Ricker Pond,

4. Inform the citizens of our findings,
5. Assess the level of public support for any future projects, and
6. Implement a plan based on the sum of our findings.

Existing Facilities: Sewage Disposal

Almost all of the buildings located in the town center and the Lake area are serviced by on-site private septic disposal systems. Many of these systems were installed prior to the enactment of Vermont's Environmental Protection Rules pertaining to Wastewater Systems and Potable Water Supply. These rules became effective on September 29, 2007 and require any new construction, modification or change of use of an existing structure, or any replacement system, to be built or upgraded to a common standard defined by the State. All existing systems installed and in use prior to July 1, 2007 were grandfathered under a "clean slate" exemption, which was included in the legislation.

As these older systems age and eventually fail, homeowners will face the task of building a new system under more stringent rules. Some may find that there is simply not enough space to build a new system, the soils may not be adequate to treat the waste or there is no good solution for the upgrade of their system. For example, many residents of the lake and village areas have small lots, which may not be adequate for new or improved septic systems. A failing septic system creates a public health hazard and can lead to contamination of their or their neighbor's potable water supply.

Existing Facilities: Water Supply

Most property owners in Groton depend on a private, drilled well or other source for their potable water supply. The water is drawn from aquifers, which act as natural storage for potable water. The Vermont Department of Health has no requirements for testing private residential wells. However, to ensure that drinking water is safe, the Vermont Department of Health recommends a series of tests, including annual testing of the total coliform level and testing every five years for inorganic chemicals and gross alpha radiation screening. Coliform bacteria are a large group of soil and intestinal bacteria, which indicate potential well contamination. They may cause health problems and possibly indicate contamination via human or animal feces. Coliform contamination may be a result of improperly functioning septic disposal systems.

Proposed Facilities: Sewage Disposal

The first step to evaluating the condition of the town's sewage disposal infrastructure is to involve the citizens. We will identify the needs of the community through

surveys, in-person visits and public outreach. It is important to determine the initial level of public support and assess those issues that are most important. We will seek to define both the problems and goals of this effort. The outcome of this phase will be to build a community vision that complements the town's vision.

The town will assess sources of funding, either through loans, grants or cash on hand to facilitate community outreach and further study current infrastructure and future needs. This study will entail evaluation of soil conditions, location of existing facilities and water sources. It will identify possible future sites for wastewater disposal. During the assessment period, the town will, from time to time, publish its findings and invite the public to comment and provide feedback. The town may also engage the services of a consultant to help gather and interpret the results of the survey and provide possible solutions that address the needs of the community.

The result of this process will be a clearly defined vision for the community, a survey of existing facilities and their condition and a list of possible solutions with associated costs. At this point, the community will be called upon to evaluate the results of this work and to outline a roadmap for the future.

Proposed Facilities: Water Supply

Any study of wastewater should also include a review of the town's water system. Since wastewater eventually recharges our aquifers, any failing septic systems directly affect our sources drinking water. Protection of our water supply is important not only for human use but also for environmental protection and the preservation of our scenic countryside.

In conjunction with a wastewater survey, private wells will be identified and mapped to ensure that they meet the required separation distances from any new or existing treatment areas. This mapping may be funded by the sources indicated above in Proposed Facilities: Sewage Disposal and will form an integral part of the report.

The results of a water supply study will be included in the sewage infrastructure report.

The town will develop a Geographic Information System map of the existing water supply sources and sewage disposal fields with any additional features (such as waterways, roads, etc.) as deemed necessary. Also included will be a soils' analysis and identification of possible treatment sites for future expansion. Possible fire hydrant sites will be identified.

Cemeteries

Groton's Village cemeteries are to the east of Groton Village and they cover 16.43 acres. These cemeteries are almost up to capacity. Another cemetery is the William Scott Cemetery on Scott Highway, totaling .48 acres. Two of the oldest cemeteries are on the Great Road (Peacham/Groton town line) .11 acres and on the Glover Road .37 acres. There is another very small cemetery to the south of the Glover Road Cemetery, which is on the corner of the Glover Road and Sayers Road. Park Street, purchased in anticipation of need, encompasses six acres.

Recreational Facilities

The Frost Ball Field (1.7 acres) is valued at \$21,700, Veteran's Memorial Park (1.7 acres) valued at \$21,700, Puffer Ball Field (3.8 acres) is valued at \$31,300. All of these areas are utilized during the summer and fall. The 63-acres on the Welton Road, purchased for gravel, valued at \$64,000, could be utilized for forest management and recreation.

Police Protection

Groton has both 1st and 2nd Constables and an animal control person.

Rapid Response Plan

Groton should update and maintain a Rapid Response Plan as required by state law.

Solid Waste

Solid recyclable waste is taken to a collection point in East Ryegate. Both Ryegate and Groton are member towns in the Northeast Kingdom Waste Management District (www.nekwmd.org). The waste center is open each Saturday morning from 8 a.m. to 11 a.m. There is no charge to drop off aluminum and cans, cardboard and boxboard, newspaper, magazines or office paper. There is no charge to drop off fluorescent bulbs, oil and oil filters, wet-cell batteries, appliances and scrap metal of any kind. There is a charge for tires, TVs, computers and other electronic devices. Pete's Rubbish Removal Service also collects bagged trash at the center for a fee. There are additional private waste-haulers who can be contracted for curbside pickup.

The town holds a Bulky Waste day in the spring and fall where people can dispose

of furniture and building waste. A Household Hazardous Waste day is also held at the East Ryegate recycling center in June.

Library

The Groton Free Public Library is located at 1304 Scott Highway in the center of Groton Village. The Library is professionally managed by a librarian with an extremely active and supportive group of trustees. The Library applied for and received a grant from the Bill and Melinda Gates Foundation in 2008 to update the public access computers. The Summer Theme focused on bugs and insects, and three programs were offered. Joshua Smith spent an afternoon at the Library in April describing his experiences with Action Against Hunger. The book discussion group continues to meet regularly. The knitting/craft/needlework group meets on Wednesday afternoons. Learners as well as experienced needle workers are welcome. A Spanish language group meets weekly to discuss current topics. Friends of the Library continue to manage book sales during the year. The Library contributed a sum in support of a matching grant from the Libri Foundation enabling the librarian to purchase children's books. Friends of the Library cover books, staff the desk when needed, work on fundraisers and maintain the facility.

This year we will be updating the older computers, having book discussions, craft meetings and programs for both adults and children. The Library offers the latest in popular books, audio books, magazines and newspapers.



Groton Free Public Library

► Recommendations:

1. A suitable space for additional book storage should be identified for the Library.

2. Encourage a bank and doctor to practice in town as well as additional businesses.
3. Continue to work with and support the Building Committee in finding a suitable and healthy space for the town offices and a suitable remedy for the Fire House.
4. The town should identify new cemetery space for future expansion.
5. A multi-purpose indoor recreational facility for all ages should be identified and pursued.

► Recommendations relating to sewage disposal and water supply:

1. Assess the public perception of the sewage disposal and water supply infrastructure through surveys, in-person visits and public outreach. Determine the town's capabilities for continued sustainability with respect to sewage disposal and water supply.
2. Identify and apply for funding to study the issues associated with sewage disposal and water supply.
3. Clearly define a community vision that outlines what is important for our town center and shoreline district with regard to sewage disposal and water supply.
4. Assess the physical condition of existing disposal fields and private wells. Map the results.
5. Provide preliminary solutions and estimated costs that address the goals and vision of the community.
6. Present all of the findings to the public, and assess public and political support.
7. Create a decision-making process and panel to move forward with recommendations of the town.

Communication

Groton does not currently have cell coverage. The town should work to identify possible cell tower sites and work with service providers to explore future coverage.

High speed Internet access is available to most Groton residents.

PRESERVATION

The town of Groton is situated among hills, forests and rivers and provides an idyllic setting to both raise a family and to enjoy the numerous opportunities for recreation. Preservation of our natural areas, vistas, scenic byways, night time skies and historic homes and buildings should be taken into account with all land use decisions.



Groton Village

Historical Homes and Buildings

The unique character of a community comes from both its natural and man-made environments. Groton is blessed with rolling topography and soils that provide for a variety of land uses. The community is also fortunate to have many historic and interesting buildings. The goal of future land use and zoning bylaws should be to preserve

the natural and historic features of the Vermont landscape within the town. These add greatly to the "color" of the community as much as the scenery. Many of these buildings are in the village proper while others are scattered throughout the town. These include but are not limited to the following:

Stone House built by William Taisey in 1808

Methodist Church built by Ephraim Low in 1836, remodeled by William Goodwin in 1889

Groton Historical Society House built by Peter Paul in 1840

Baptist Church built by George H. Rice in 1866

Jonathan R. Darling house built by William Goodwin

Honors House (bequeathed to the Methodist Church then later sold)

IGA store (restored by Douglas French)

Groton General store (restored by Gilman Housing in 2005)

Groton Free Public Library (restored by Gilman Housing in 2005)

Post Office and Charles Lord Printing shop built by George Millis

Railroad Station

Stone shed (restored by Harold Puffer)

Feed stores

Deane Page House

Burton Brown House

George Ricker House

Cliff House

Dot Main House

Isaac Welton House (Welch Block)

Waldo Glover House

Norma Hosmer House

Information on these and other buildings can be obtained through the Groton Historical Society (GHS).

In order to promote and maintain a viable "Downtown Village," any of these buildings, which can be utilized in such a manner, should be. Making necessary repairs to existing buildings to make them suitable for private or town use should be encour-

aged. This would result in keeping a familiarity about town and build community spirit.

► Recommendations:

1. Groton should do what is possible to encourage restoration and reuse of historic buildings.
2. Develop a plan to identify and preserve the historic resources in town. Include the GHS in this process. The GHS has expressed interest in developing such a plan and has formed a committee to identify homes 100 years old or more. The GHS will contact owners to include them in a registry and identify the buildings with an information plaque. This process could be taken a step further in the future with a brochure and map with more detailed historical information on the buildings.
3. Zoning bylaws should recognize the significance of these buildings both in the village and throughout the town.
4. The Village District zoning should be modified to be more business friendly for low impact retailers.

Natural Areas

Wetlands

Based on the National Wetland Inventory maps, Groton has an estimated 680 acres of wetlands within its borders. The wetlands mapped during the planning process are generalized and are not meant to be comprehensive and replace field checking. For example, there are areas around Lake Groton that are still pending with the Federal Emergency Management Agency and the Town of Groton.

Wetlands perform important functions in enhancing water quality, recharging ground water, and providing wildlife habitat. In recognition of the important role that wetlands play in the environment, the State of Vermont Wetland Rules protect such areas. These areas are an important part of Groton and should be preserved and enhanced.

Maintaining critical wildlife habitat, such as nesting areas of rare birds and feeding areas of animals, and protecting wetland areas are important to the town and should be given priority where conservation efforts are concerned.

► Recommendations:

1. Locate all wetlands and build a GIS inventory to be used as a future guide for preservation.
2. Support preservation of wetlands and critical habitat through zoning bylaws and ordinances.

Deer Yards

Deer in Vermont live near the northern limit of white tail deer range in eastern North America. Deer need to use a specific winter habitat when severe climatic conditions become a threat to the animals' survival. Areas used year after year by deer seeking winter shelter are called "wintering areas" or deer yards. These areas consist of two basic habitat components. The core range is often characterized by concentrations of relatively tall, dense softwoods. This reduces the snow depth, protects the deer from the wind and increases the average temperature and relative humidity. South facing slopes are often preferred due to increased solar gain. The second component consists of mixed hardwood and softwood adjacent to or within the core range that provides accessible browse.

The availability of quality wintering areas is the limiting factor for white tail deer in most of Vermont. Since only six percent of Vermont is considered deer wintering area, the State of Vermont has made protection of these areas a priority. Considering the economic contribution and the important place that deer hunting has in the traditional lifestyle of Vermonters, the statewide priority is understandable. However, at the local level, restrictions imposed on deer yards may be excessive. Within the town of Groton, 34.6% (7,447 acres) of the privately owned lands are considered deer yards. These lands receive more scrutiny by state agencies when development is proposed on them, which makes future development within Groton even more difficult. So even though the State goal of protecting deer yards may be good, state agencies should consider the overall impact on the local towns and landowners before making any decisions. Not every acre of deer yard is critical and some kind of mechanism to allow development within some of them should be considered.

Natural Heritage Sites

The Vermont Natural Heritage Program is responsible for locating and mapping rare plants and animal habitat in Vermont. Using information from aerial photography, local experts, field visits and other sources, they compile a list of sites within each municipality in Vermont. The quality of the inventory depends on the quality of the information received and willingness of the landowner to allow people to inventory their property. It is not necessarily comprehensive. Once identified, information about the species or habitat is collected and mapped. A generalized map showing the

approximate location of the site is then developed. In general the sites are not protected by law, but are meant to inform landowners so they may be careful not to unknowingly disturb a rare plant or an animal habitat. Examples of the sites in Groton include the following:

- Rare plants and loon nesting sites on Kettle Pond
- Threatened rhododendron at Lake Groton
- Threatened laurel at Levi and Ricker Ponds
- Rare plants at Seyon Ranch



► Recommendation:

1. Work with Vermont Natural Heritage Program to identify critical wildlife habitats and build a mapped inventory to be used as a future guide for preservation.

Dark Nighttime Skies

(Much of this section was adapted from the International Dark Sky Association)

Today, people who live in or near cities have lost much of their view of the night time sky. This view is often substantially diminished even for people who live in smaller towns and rural areas. The spectacular view of the sky that our ancestors had on clear dark nights no longer exists. The great increase in the number of people living in urban areas has resulted in a rapid increase in urban sky glow due to outdoor lighting, brightening the heavens to such an extent that the only view most people have of the Milky Way or most stars is when they are well away from cities. This excess light in the sky has an adverse impact on the environment and seriously threatens to remove forever one of humanity's natural wonders - our view of the universe.

This sky glow that adversely affects the environment is called light pollution, for it is wasted light that does nothing to increase nighttime safety, utility, or security. Such wasted light only serves to produce glare, clutter, light trespass and light pollution and wastes energy, money, and natural resources in the process. Light pollution also threatens wildlife by disrupting biological rhythms and otherwise interfering with the behavior of nocturnal animals.

Viable solutions do exist for the problem of light pollution. These include simple outdoor lighting codes and ordinances. Lack of awareness, rather than resistance, is generally the biggest problem in controlling light pollution. Educating the public, government officials and lighting professionals is necessary to ensure that our night time skies remain dark.

► Recommendations:

1. Use night lighting only when necessary. Turn off lights when they are not needed. Timers can be very effective. Use the correct amount of light for the need, more is not better.
2. Direct the light downward, where it is needed. The use and effective placement of well designed fixtures will achieve excellent lighting control. When possible, retrofit or replace all existing fixtures of poor quality. In all cases, the goal is to use fixtures that control the light well, minimizing glare, light trespass, light pollution and energy usage.
3. Use low pressure sodium (LPS) light sources whenever possible. LPS lamps are also the most energy efficient light sources that exist. Areas where LPS is especially good include street lighting, parking lot lighting and security lighting.
4. Revise existing bylaws to incorporate outdoor lighting standards.

Significant Scenic Roads and Waterways

Groton has several significant scenic roads and waterways. The Wells River flows from West Groton through the village and could be a center of recreational activity. The Cross Vermont Trail, which runs along the old rail bed from Ryegate through the Groton State Forest, is a year-round multiuse trail.

► Recommendations:

1. Identify roads and byways that have significant scenic value.
2. Develop scenic bike routes through Groton.
3. Designate the railway bed as a town trail.
4. Work to open access along the Wells River by partnering with landowners.



EDUCATION

Groton is a member of the Blue Mountain Union (BMU) School District #21 (www.bmuschool.org). The school was built in 1970 to serve residents of Groton, Ryegate and Wells River and consists of grades preschool through twelve, all housed under one roof. The school is located on VT Route 302 near the P&H Truck Stop and Exit 17 of I-91. In addition to classrooms, the facility has a number of special purpose rooms including an art room, a cafeteria, a combined auditorium and gymnasium, two computer labs, a library, a music room, three science labs and several small rooms for specialized instruction. Outdoor recreational facilities include a playground, athletic fields for soccer, softball and baseball and a nature trail.

In 1998, the school was renovated creating classroom suites and separate office spaces. Kindergarten and preschool rooms were constructed, as were spaces for small groups and guidance services.

Built for a capacity of 600 students, the school has consistently had an enrollment of 400-440 since 2000. In 2008 enrollment was 409, including 181 (43%) from Groton. In 2008-2009, there are 25 tuition-paying students from Barnet, Corinth, Topsham and Newbury and Landaff, NH.

Based on current population trends, the enrollment should remain steady to slightly increasing over the next five years. Any gains or losses should be distributed over all grade levels.

BMU contracts with First Student, a national bus company with an office in Piermont, New Hampshire, for its transportation services. This arrangement began in 2005 in conjunction with the Haverhill School District and immediately saved \$50,000 in bus costs. BMU uses six buses for its daily routes, and they serve approximately 315 students, depending on ridership on any given day. As of 2008, BMU has 1.5 years remaining on its contract with First Student.

In addition to academic programs offered at BMU, students have access to technical programs available at River Bend Career & Technical Center in Bradford (www.riverbendtech.org). The mission of River Bend is to provide educational opportunities and support for students in developing their career goals and skills to become productive

members of an ever-changing, global society. Programs include building trades, electronic technology, heavy equipment operating, business technology, culinary arts, cosmetology, human services, environmental science, automotive technology, emergency- and fire-management services, digital communication and multimedia design.

STUDENT POPULATION BY YEAR AT BLUE MOUNTAIN UNION SCHOOL

Grade	June 2007	June 2008	Average
Kindergarten	32	40	36
1st Grade	25	29	27
2nd Grade	22	25	23.5
3rd Grade	31	21	26
4th Grade	25	33	29
5th Grade	25	24	24.5
6th Grade	34	23	28.5
7th Grade	33	33	33
8th Grade	39	29	34
9th Grade	43	47	45
10th Grade	37	40	38.5
11th Grade	36	31	33.5
12th Grade	<u>30</u>	<u>34</u>	<u>32</u>
Total	412	409	410.5

Another segment of our population of school-aged children is home schooled, either by their own parents alone or within a small group of other children. It is estimated that there are at least nine children in homeschooling programs that would otherwise attend BMU.

The facilities of BMU are in good repair due to the hard work and dedication of the building and grounds personnel. The most recent renovations occurred in 1998. The facilities, however, are heavily used, and infrastructure does wear out over time. Not all deficiencies were corrected in 1998. In spite of this, visitors often comment on the cleanliness of the school and the grounds. BMU is in the process of developing a five-year plan and a long-range building plan that would go into effect when the loan for the 1998 renovations is paid off in 2019.

Since its opening in 1970, education has changed. Computer labs were unknown at the time and did not figure into space requirements. Special education needs have grown due to our medical ability to save infants' lives. There are more children who need much more space for specialized services than even 10 years ago. The industrial technology area was eliminated during the renovation. That eliminated a beneficial curriculum resource for students. The kindergarten and preschool facilities are under-sized. Based on current and projected enrollments, the facilities should be able to handle the number of students in the future, but attention should be given to those areas that would benefit from additional space.

New facilities could include a multi-purpose room, larger kindergarten and pre-school spaces, an improved kitchen and an improved and expanded gym area, which includes a new floor, bleachers, renovated and expanded locker rooms and a fitness center. A school-wide fitness program should be implemented.

School students would greatly benefit from an additional foreign language teacher and a health teacher. Other needs can be addressed by modifying the existing curricula, but emphasis should be given to developing well-prepared students for both college and the work force.

The town must work with BMU to develop a long-range plan to address future needs of the school in order to maintain a high standard of education. This plan should be developed before the needs become critical to ensure a focused, balanced and cost-effective approach. It may be possible to provide these new facilities and services with a new loan that would have a similar payment as the existing loan so the tax rate remains relatively stable.

In addition to addressing the needs of students, a staff position could be added to help make the building available to the community for such activities as fitness classes, intramurals for families, adult education and summer programs. More activities could help to connect more Groton residents with the school.

► Recommendations:

1. Support the school in providing the best education possible to our students.
2. Balance the desire for upgrades and expansion with current economic realities.
3. Achieve a fair and equitable tax structure for the residents of Groton.

ENERGY

Energy conservation, self-sufficiency and independence bolster our nation's security by lessening dependence on imported oil and other fuels whose supply may be disrupted and over which we have no control.

Background

1. Home heating. The latest information shows that most residents of Groton heat their homes with fuel oil, propane and wood. Fuel oil, kerosene and propane are distributed from Bradford, St. Johnsbury, Barre and other towns. There is no scarcity of wood as much of the land is forested. The changeover to firewood or wood pellets for heating is not without problems: wood is more difficult to use for heating by older residents and the use of wood as a source of heat increases the concern about fire in the community.

2. Electricity. The electrical power for the town is supplied by Green Mountain Power (www.greenmountainpower.com) and Washington Electric Cooperative (www.washingtonelectric.coop). There is no scarcity of power. The only power problem is short term - when power is disrupted by storm damage. Three year-round and two seasonal households are off-grid, creating their own electricity from solar photovoltaic systems and wind. Even though the Wells River passes through Groton, no electricity is generated locally from hydro power.

The number one issue for respondents to the 2008 town survey was the use of alternative energy. Rising costs of home heating oil for poorly insulated houses and fuel costs for long commutes in automobiles have created a financial burden for many Groton residents. The overwhelming majority favor investigation into solar, hydro and wind sources of energy. A growing number of residents are looking into switching to renewable heat sources such as wood pellets.

3. Transportation. In 2000, 77% of the 395 workers from Groton drove to work alone, while 17% carpooled. Average time spent commuting round-trip, to and from work, was 56 minutes. A 2008 town survey showed 35% of respondents reported com-

muting more than 25 miles round-trip to work while 80% drove more than 25 miles to a grocery store. Any reduction in the distance to drive to work or to go shopping will affect personal expenditures for fuel and time.

Analysis:

1. Wood, solar, water and wind renewable energy resources are available in Groton.
2. Groton has little control over the cost of energy.
3. Problems are political, informational and individual.

Goals:

1. Encourage energy education.
2. Encourage energy conservation.
3. Encourage energy production through renewable sources.

► Recommendations:

1. Conduct an energy audit of town-owned buildings and vehicles, and take action on identified areas that will reduce energy consumption and/or costs.
2. Adopt an energy conservation policy for town buildings and vehicles, e.g., purchase and use insulation and weatherization products, fuel efficient vehicles, automatic light switches and thermostats, Energy Star appliances and fixtures.
3. Look into purchasing the street lights in the town to save both money and energy as was done in Plainfield, Vermont.
4. Investigate establishing a revolving loan fund using a grant from the USDA's Housing Preservation Grants Program to repair and rehabilitate housing owned by low income residents.
5. Consider exempting from taxation, in accordance with *Title 32 VSA Section 3845*, renewable energy systems on residential and commercial property.
6. Continue to encourage town residents to conserve energy by recycling, walking, turning off lights, keeping vehicles tuned and maintained for best mileage and minimizing use of hot water.
7. Purchase several electrical energy use monitors to be used by the town's residents to identify and determine their energy use.
8. Provide information to the community from a variety of governmental and private sources through gatherings and at the town office and library.

9. Establish commuter parking lots and provide other assistance to encourage and allow car pooling, as recommended in the town's transportation plan.
10. Encourage all new construction, renovation, and replacement to use the best current practices and materials as well as optimum location to use less energy and take maximum advantage of renewable energy. This should include building and maintaining roads and drives with safe and appropriate turning space for all season delivery of fuels.
11. Encourage use of locally produced materials for construction.
12. Consider and support the use of local energy sources such as wood, hydro, wind and solar energy by members of the community and in particular those unable to assist themselves.
13. Create and support a committee to look into and assist with all of these recommendations.



McClure's Band performed at Groton Foliage Day, October 2007

HOUSING

The purpose of the housing element is to:

1. Promote the orderly development of housing in the town of Groton.
2. Encourage increased density in the village center while maintaining the rural character of outlying areas.
3. Complement and guide the zoning bylaws to meet the growing needs of the town.
4. Facilitate adequate and economical provision of streets and utilities in order to provide housing for all incomes.
5. Address the needs of low- and moderate-income citizens to ensure affordable housing for all.

Housing Zoning Districts

Village Center

This is the area in the central part of the community and is designed to continue the New England character, which includes residential, commercial and religious uses. Growth should be concentrated within the village center, leaving much of the open land less developed. It is important to preserve and promote the residential character of the village.

Rural District

This district is comprised of residential, agricultural and other compatible uses at densities compatible with the physical capability of the land and the availability of community facilities and services on lands outside of the Village Center areas. Planned

unit development, open space preservation and other techniques for preserving the rural character of these areas are encouraged.

Shoreland District

This district preserves the attractive natural features surrounding the ponds and lakes of Groton while permitting seasonal and year round residential uses. Shoreland includes the land within 500 feet of the mean water level of ponds and lakes designated on the zoning map. The housing units in the Shoreland district are mixed seasonal and year-round homes with limited potential for growth.

The highest concentration of housing units is in the Village and Shoreland Districts, which have a lot of potential for future growth. Most units are of the single family home style and the rest are two family homes, farms and other businesses.

Affordable Housing

Within the last five years the Gilman Housing Trust and Groton Community Housing have rebuilt and restored six historic buildings into 23 low-income housing units, four commercial spaces and a new library. While there are vacant single-bedroom apartments in town, there is a waiting list for two and three bedroom apartments. There is one elderly housing unit, which houses nine elderly/disabled people.

Future Housing Needs and Issues

The trend of housing indicates that more and more families are moving to Groton, whether to enjoy the quiet countryside or to find more affordable housing, despite it being further afield from their place of employment and/or other surrounding towns.

► Recommendations:

1. One of the smallest segments of housing includes farms, and development of agriculture and local food sources should be encouraged.
2. The town should encourage concentrated housing in the Village Center to preserve open spaces and best utilize existing facilities and services. The Village Center should be suitable to handle increased development, and current water and wastewater infrastructure should be studied.
3. With the recent completion of the low-income housing project, the town of Groton has made progress in the inventory of low cost housing.

4. Groton does not currently have a subdivision regulation. It is the recommendation of the Planning Commission to develop a subdivision regulation to promote orderly growth that fits with the rural character of the town.

POPULATION TRENDS

	<u>1990</u>	<u>2000</u>	<u>Change from 1990</u>
Total population	862	876	1.03%
Number of people under 18	252	248	-1.6%
Number of people 65 and older	101	128	26.7%
Number of working age	509	500	-1.8%
Total Number of households	303	338	11.6%
Single person households	43	68	58.1%
2 or more person households	246	270	9.8%

(Data from US Census)

HOUSING TYPE TRENDS

<u>Type</u>	<u>2003</u>	<u>2008</u>	<u>Change</u>
Residential homes under 1 acre	183	214	16.9%
Residential homes over 1 acre	108	142	31.5%
Unlanded mobile home (doesn't own land below)	16	12	-25.0%
Landed mobile home (owns land below)	42	44	4.8%
Vacation home under 1 acre	149	114	-23.5%
Vacation home over 1 acre	64	46	-28.1%
Commercial	22	19	-13.6%
Commercial apartments	2	5	150.0%
Industrial	1	1	0%
Electric/Utilities	3	3	0%
Farms	7	8	14.3%

HOUSING TYPE TRENDS (continued)

<u>Type</u>	<u>2003</u>	<u>2008</u>	<u>Change</u>
Other	4	3	-25.0%
Woodlands	38	42	10.5%
Miscellaneous	120	125	4.2%
Town of Groton	23	23	0%
State of Vermont	16	16	0%
Churches	<u>2</u>	<u>2</u>	<u>0%</u>
TOTAL	760	758	-0.26%

(Data from Groton Grand List 2008)

AGE OF HOUSING

<u>Year Built</u>	<u># of Units</u>
1999 to March 2000	22
1995 to 1998	19
1990 to 1994	70
1980 to 1989	49
1970 to 1979	85
1960 to 1969	69
1950 to 1959	18
1940 to 1949	20
1939 or earlier	<u>220</u>
TOTAL	572
Median Year Built	1964

Source: *U.S. Bureau of the Census,
Census 2000 Summary File 3
Tables H34 and H35*

IMPLEMENTATION

The town plan is intended to be a guiding document for future land use in the town of Groton. Each element of the plan contains background and history related to that section, a description of current issues or infrastructure and goals for future improvements. This section provides a basic framework for the implementation of those specific recommendations.

By law, the town plan is a living document that is reviewed and updated every five years. However, the town plan should change and adapt continuously to meet the changing needs of our town. The best way to accomplish this is to maximize community involvement. The Planning Commission will:

1. Solicit the help of those in our community who are interested and can provide insight and suggestions to help shape the town plan.
2. Present ideas and information to the public through public meetings, mailings, special events and the town's website, www.grotonvt.com.

The Planning Commission functions as a land use panel that makes recommendations to guide the growth of our community. The main authority we carry to implement these suggestions is to prepare and submit to the Selectboard zoning bylaws and subdivision regulations for their consideration. Therefore, the Planning Commission will:

1. Review the current zoning bylaws in the context of the town plan.
2. Update and amend the zoning bylaws to reflect the current desires of Groton as expressed in the town plan.
3. Explore the preparation of subdivision regulations.
4. Apply these bylaws and regulations equally to all citizens.

Since Groton does not exist independently of other surrounding communities, the town plan is used as a standard when dealing with issues of development. Act 250 and

other state regulatory processes identify the town plan as a standard for review of applications. The town plan is important to the development of inter-municipal, regional and state plans and programs. The town plan will:

1. Serve as the review standard for issues relating to Act 250.
2. Work within the goals of the surrounding communities and region while still maintaining the ideals that are important to Groton.

Since no plan can identify and address every issue in detail, the Planning Commission is granted the authority to undertake studies to assess the needs of the community. These studies can include, but are not limited to:

1. Conducting surveys to determine the issues that face our town.
2. Reviewing the current water and wastewater infrastructure.
3. Recommending to the Selectboard appropriate action.

These studies may be conducted by our commission or through outside sources. The commission will:

1. Work with state and federal agencies as well as private consultants as needed.
2. Pursue grants and other funding for these studies to minimize the taxpayer's burden.

The ultimate decision in town matters lies with the Selectboard. The Planning Commission can work closely with the Selectboard to:

1. Guide the town in budgeting and facilities planning.
2. Influence future decisions of the town in the context of land use.
3. Ensure the orderly development of Groton.

Finally, the town plan should provide a snapshot of our town and be used to inform and educate other planning commissions, businesses and anyone else who may be interested in Groton.

ADJACENT TOWNS

The town of Groton is located in east-central Vermont and is bordered by eight towns in Caledonia, Orange and Washington Counties. To the north are Marshfield, Peacham and Barnet; to the east is Ryegate; to the south are Newbury, Topsham and Orange; and to the west is Plainfield. It is the purpose of this section to analyze our neighbors' town plans to determine how they fit within our vision of development and vice versa.

Surrounding Communities Plan Dates and Regional Planning Commissions

Town	Plan Date	Regional Planning Commission
Marshfield	17 January 2006	Central Vermont Regional Planning Commission
Peacham	15 June 2005	Northeastern Vermont Development Association
Barnet	22 September 2008	Northeastern Vermont Development Association
Ryegate	10 September 2001	Northeastern Vermont Development Association
Newbury	26 September 2005	Two Rivers - Ottauquechee Regional Commission
Topsham	24 January 2005	Two Rivers - Ottauquechee Regional Commission
Orange	11 July 2005	Central Vermont Regional Planning Commission
Plainfield	November 2007	Central Vermont Regional Planning Commission

Despite the large number of adjoining communities that are spread across three counties and three regional planning commissions, the goals of our neighbors are much in tune with our own. Most plans have in common the following goals:

1. To preserve the rural character of their town by maintaining the historic settlement pattern of the town center.

2. To encourage appropriate development of business and economic activity.
3. To protect the natural and historic features of their landscape.
4. To maintain and improve the quality of the air, water and land.
5. And to ensure that public facilities grow sustainably with the growth of the town's population.

The town plans of the communities listed above have been reviewed within the context of how they relate to Groton. There are no issues that would adversely affect our vision of development or negatively impact our community.

Groton is part of a mutual aid agreement for fire fighting and emergency services; most of our students commute to Blue Mountain Union in Wells River for their education; recycling is managed by volunteers from both Groton and Ryegate, and most residents rely on employment located in other communities. Continued communication and cooperation with adjacent communities are critical to maintain these services and to identify and develop new ones.

Goals:

1. Maintain open communication with adjacent communities and inform them of our planning activities.
2. Identify and pursue joint services that may provide a greater benefit than if done alone.
3. Review zoning bylaws and subdivision regulations of surrounding communities.





Owl's Head from entrance to Stillwater Park



Kettle Pond from Owl's Head

Back Cover: Devil's Hill from the Loop Trail

