

# GUILFORD

# VERMONT

## TOWN PLAN 2015 -2020

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## **ACKNOWLEDGEMENTS**

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Also, thank you to the many Guilford residents who served as resources and counsel during the writing of this report. This Town Report has been a collaborative process which results in a plan we all believe will work best for our Town with our community vision at the core.

# **INTRODUCTION**

## **Purpose of a Town Plan**

The Town plan is intended to, among other things:

1. allow Guilford to participate in certain state programs and receive grant contributions and external funding for municipal projects, including Federal Emergency Management Agency (FEMA) grants;
2. support land use guidelines;
3. allow the Town to participate in Act 250 permit processes; and
4. provide a database of pertinent information about the town and inventories of town resources.

There are several main topics that weave through this 2015-2020 Town Plan: climate change, environmental stewardship, community building and sustainability, conservative use and budgeting of resources, quality of life for all generations, and the increasing complexity of our day-to-day lives, among others. The Planning Commission has heard and heeded the many voices that contributed to our process and, to the best of our ability, has integrated them into the visions, goals, policies and actions in the following pages.

It is up to the community to use this information to create the best outcomes for us as individuals and as a town.

In Vermont all town plans must cover twelve specific elements. All elements, which are established in 24 V.S.A. § 4382(a) of the Vermont Municipal and Regional Planning and Development Act (the Act), must be addressed for the plan to meet the requirements of the Act and to be considered a legal document. Otherwise, the Town would not be able to use the plan in Act 250. For the 2015-2020 plan, the State requires that we address economic development and flood resiliency issues to comply with the Economic Development criteria required in 24 V.S.A. 4382 (a)(11 and 12), in addition to addressing issues generally included in Town Plans. The twelve elements are:

1. statements of objectives, policies and programs
2. land use
3. transportation
4. utility and facilities
5. policies on preservation of resources
6. educational facilities
7. recommended implementation program
8. statement of how the plan relates to neighbors and region
9. energy plan
10. housing
11. economic development
12. flood resiliency; hazard mitigation

## **Town plan cycle**

The Plan is drafted by the Planning Commission, reviewed by the public in one or more Public Hearings, and then forwarded by the Planning Commission to the legislative body (Selectboard) for adoption. The Plan is adopted by the Selectboard after one or more Public Hearings. A plan expires five years after adoption, so the planning process should be a continuing and evolutionary one, leading to a new plan every five years. A plan may be modified before expiration by the same process followed to adopt one.

## **Public Participation**

The Planning Commission's work reflects the Guilford public's wishes to the extent that the public participates in the open process.

1. In 2013 the Planning Commission distributed surveys by mail to every town address on record, soliciting feedback on issues relating to economic development, preserving and promoting agricultural viability within our town, renewable energy, public transportation, etc. There were about 100 responses (from a mailing of 900+ questionnaires) which were tabulated and analyzed. In addition to soliciting feedback via the survey, the Planning Commission held four open forums at the Grange which were advertised by fliers, mail, local newspapers, email, and road signs in an attempt to reach as many citizens as possible. Also in 2013 Guilford was one of only two Vermont towns selected to participate in the Vermont Council on Rural Development's Community Visit Program (<http://vtrural.org>). Several Planning Commission members were actively engaged in this program to ensure that our work reflected the facilitated community-wide discussions on common goals and directions.
2. We have been guided by visiting authorities: in 2013 we hosted John Bennett of Windham Regional Commission (WRC) who talked with us about the planning process; Dinah Reed of WRC helped us with Flood Resiliency. Other residents contributed their expertise to different sections of the plan. In particular, the Planning Commission worked at length with members of the Conservation Commission.
3. Members of the Planning Commission attended workshops to learn about elements of the planning process and become better informed about issues being addressed, attended a school board meeting, and participated in the Guilford Hazard Mitigation planning process.
4. Once the Town Plan draft is completed, there will be an open forum to provide an opportunity for the public to comment and offer suggestions. In addition, the Town Plan will be posted on the Guilford website.

5. Finally, citizens are invited to the Planning Commission's monthly public meetings, held on the third Wednesday of every month at the Town Offices at 7:00 p.m.

### **Interpretation of the Town Plan**

In situations where interpretation of the Plan is required it is the responsibility of the Planning Commission, in cooperation with the Guilford Selectboard, to conduct any necessary review and provide an opinion. Throughout the text of this Plan many of the policies and recommended action statements include imperative verbs.

### **Uses of Town Plan**

The Town Plan provides guidance to the various town boards, officers, and citizens that reflects the community's interest in and wishes for Guilford's character, development, environment, quality of life, economy, resources, and more. *Guilford strives to be a welcoming town – one where people can say “my life is better in Guilford!” The five year plan goals and policies for 2015 – 2020 are guidelines to make this vision a reality.*

The Town Plan represents research on Guilford's present condition and is a guide for accomplishing community aspirations and intentions through public investments, land use regulations and other implementation programs. The Plan serves, but is not limited to, the following uses:

**A long-term guide:** The Town Plan is a long-term guide by which to measure and evaluate public and private proposals that affect the future physical, social, and economic environment of the community.

**A basis for community programs and decision-making:** The Plan is a guide to help achieve community goals. Information in the plan is used for developing the recommendations contained in a capital budget, for establishing community development programs, and for providing direction and content of other public and private local initiatives such as farmland protection, recreation development, and housing.

**A basis for municipal regulatory actions:** Absent zoning regulations, the Plan serves as Guilford's guidelines for issues important to its residents including, but not limited to, land use, conservation, natural resources, housing, flood resiliency, hazard mitigation, etc. The Town does not issue development or building permits and there is no zoning. There is only a floodplain ordinance to regulate development in Special Flood Hazard Areas. This lack of restriction has some benefits to existing residents, but could pose an issue if non-desirable development were inclined to locate in Guilford.

**A source of information:** The Plan is a valuable source of information for local boards, commissions, citizens, businesses, and other governmental organizations, such as neighboring towns, state agencies and regional planning commissions.

**A source for planning studies:** This plan does not address every issue in complete detail. Therefore, further studies to develop policies or strategies to meet a specific need are recommended, e.g., Conservation Commission inventories.

**A standard for review at the state and regional levels:** Act 250 and other state regulatory processes identify the Town Plan as a standard for review of applications.

## **User Guide**

The Town Plan focuses on a wide variety of interrelated planning areas. Each of these areas is dealt with separately, in sections that include the following elements:

**Vision Statements:** Each section begins with a statement of the principle that is to guide or influence thought or action, indicating what direction should be taken on a matter. The statement is over-arching, designed to serve as a foundation for the section.

**Goals, Policies, and Actions:** These are the core beliefs and guiding principles that form the Plan. They move from the broadest (Goals) to the most specific (Actions) and include policies.

**Discussion:** The sections are generally self-contained examinations of specific issues but there are many inter-related and cross-referenced topics throughout the Plan.

## COMMUNITY PROFILE

### Town History

Guilford was chartered on April 2, 1754; first settled in 1761, and then re-chartered in 1764. The first Town Meeting was held in 1772 and, like most other towns in Vermont, Guilford still holds Town Meetings to pass budgets and to settle large issues.

During the late 18<sup>th</sup> century, the territory of what is now Vermont was subject to sometimes violent disputes between New York and New Hampshire over which state had the authority to grant title to lands in Vermont (much of which was known then as the “Hampshire Grants.”) Probably because of their proximity to New Hampshire and New Hampshire sheriffs, the people of Guilford tended to side with the “Yorkers” in these disputes just as, for the same reasons, people in the western part of Vermont tended to favor New Hampshire.

There was an intensely unsettled and political period between 1774, when opposition to British laws became the dominant sentiment in the Colonies, and 1791, when Vermont was admitted to the union of states. Two crucial Revolutionary War battles (Ticonderoga, and the decisive conflicts at Saratoga/Bennington) were fought on Vermont’s western border. But perhaps equally important to people in Guilford were the “Westminster Massacre” of 1774 (a violent disagreement among citizens in local towns over New York’s authority to judge and imprison people in this part of the region) and Ethan Allen’s ‘invasion’ of Guilford in 1782, to punish the Town for its stubborn allegiance to New York’s laws and governor. As deep as the hardships and passions of the American Revolution were, the uncertainties of life caused by the New York-New Hampshire power struggle were perhaps a bigger challenge for the citizens of Guilford and Vermont during the period of the Revolution.

During the 1790s, Guilford was the largest and most important town in the state. In 1790 there were 2432 people living in Town, more than there are now in 2015. The Town must have seemed like a bustling metropolis to visitors from other parts of the state. It produced two of the period’s most important figures: Benjamin Carpenter, who was Vermont’s second lieutenant governor (1779-80), and Royall Tyler, a noted author and Chief Justice on the Vermont Supreme Court.

An understanding of Guilford today requires a look back to the period between 1770 and 1820, when the Town’s character was formed. Most people lived outside a cash economy because there was no ‘cash’ to speak of (the state’s first bank didn’t open until 1812 and it went out of business eight years later). Barter formed the basis of the economy; consumer items imported from out-of-state were scarce and very expensive, and families needed to be as self-sufficient as possible. Roads were poor and the best time to travel or to move loads was during the winters, when the rivers were frozen and packed snow made an ideal

road surface for sleighs. On the other hand, it was possible for most large families to support themselves through farming and trades. Differences in the standard of living among townspeople were less pronounced than they are today and the level of political participation was high. (Only men had the right to vote; women wouldn't gain it for another 100 years.) Perhaps most importantly, education was highly valued and the literacy rate in the towns of the Connecticut River valley was 90% in 1800, a civic achievement unequaled almost anywhere else in the world.

As in much of Vermont, Guilford's population declined by as much as 2/3 during the period following the California Gold Rush (1849) and the Civil War (1861-65). People left the Town and the state in large numbers for better farmland in the Midwest and the western territories, and for better economic opportunities in the cities. The railroads bypassed Guilford. The Town had no outlet on the Connecticut River and it lost its prominence to more prosperous towns (like Brattleboro) along the river to its north. It remained a farming community with a small industrial base, famous for its argillaceous slate quarries, which sometimes employed hundreds of people. Other local industries included a manufacturer of wooden carriages for children, many water-powered mills to grind grain and saw lumber. (One of them turned out 10,000 broom handles a year at its peak.) There were also brickyards and blacksmith shops.

After the Civil War, the Springs Farm in Guilford Center became a popular destination for people seeking its famous "water cure." The spa was both a resort and an exporter of its bottled water throughout the northeast and other parts of the country. Until 1892 there was a cider brandy distillery in Town. For most of the 19<sup>th</sup> century, however, sheep farming was by far the largest source of income, until it was gradually replaced by dairy farming.

In 1945 there were over 30 dairy farms operating in Guilford. Fifty years later there were only seven. In the 1950s, the new requirements for bulk milk handling equipment and refrigeration meant the end of very small herd farms. Besides its smallest farms, the Town also lost traditional industries and services. The Weatherhead Hollow Creamery ceased operations in the 1930s; the Town's last Post Office (in Green River) closed in 1941; the last blacksmith shop closed in the 1950s; and the mill in Guilford Center closed in the 1970s. Today, there is a resurgence of farms, with Guilford transitioning back to smaller scale, diversified, CSA-model farms from mid-size dairy farms, and an increase in service-based business. Over twenty percent of our employed citizens work in Guilford (up from 15% in 1990); quite a few of them are self-employed.

Until the late 1950s, Guilford had 14 one-room school houses located throughout the Town. Since 1957, the Town has consolidated elementary education in the Guilford Central School. The school, currently serving kindergarten and grades 1-6, has strong support from the citizens of Guilford. Grades 7-8 attend Brattleboro Area Middle School, and grades 9-12 attend Brattleboro Union High School. Place-based education initiatives at Guilford Central School encourage strong connections between students and their community.

## **Town Character**

The Town encourages development around the Village of Algiers and along Route 5 in the eastern portion of the town, near I-91, currently the most developed areas of Guilford. Most of the rest of the Town is deemed conservation, agricultural, or residential. Guilford Center, West Guilford, and Green River are historic village hamlet areas with residential development around them. For nearly 200 years Guilford was a town with five thriving hamlets: Algiers, Guilford Center, Packer Corners, Green River, and Hinesburg (West Guilford). Each hamlet had a school, and all except Packer Corners had a church, a post office, a store and light industry and services. Today only Algiers and Guilford Center are active public centers. Much of the change is due to the automobile, school bus, and better roads; greatly increased mobility meant that people could travel outside their hamlets to work, shop, attend school, and worship.

Two profound changes affecting the Town were the abandonment of the one-room schoolhouse districts in 1957 in favor of the Central School, and the completion of the first stages of Interstate 91, which connected the Town much more directly with the rest of New England and New York. Building the Interstate necessitated the relocation of home, division of properties, and lost pastures and farmland. Also, it meant that most commuters and travelers bypassed the Route 5 corridor. Businesses that no longer exist or that saw their customer base significantly eroded include Guilford Cabins, a roadside gift shop, antique dealers, two country stores and gas stations, tractor and machinery sales and service shops, and farms in the business of maple sugaring. On the other hand, the possibility of commuting easily to jobs elsewhere made Guilford an attractive place to live for many out-of-staters. A wave of hippies arrived in the late '60s and early '70s (admittedly not attracted by the local job market); they created several communes out of old farms. Many other individuals and families came to Guilford for a simpler, better life than what they had known down-country. The 1970s and, particularly, the 1980s were a period of enormous population growth, and Guilford's population increased 89% during those two decades. Since then the population has grown more slowly.

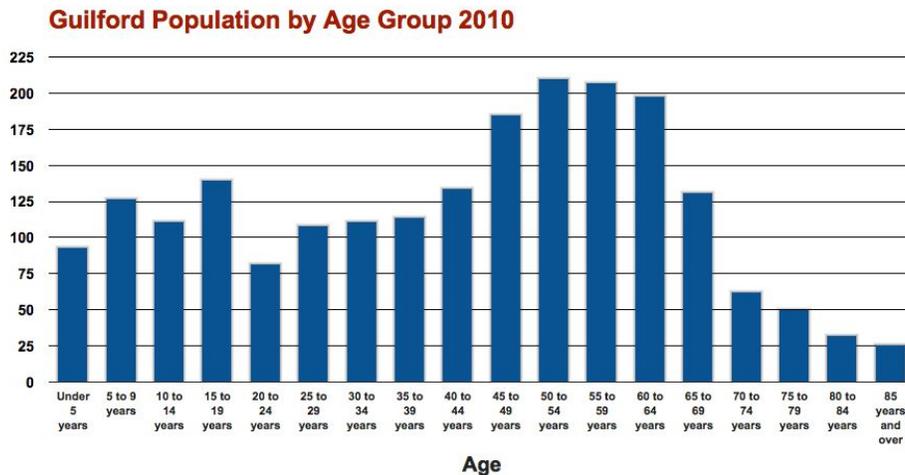
For the people who knew the "old" Guilford of the 1930s, 40s, 50s and early 60s, the period from about 1968 to the present has presented many challenges, as they adapted (willingly or not) to the changes to the Town brought by the newcomers. Although it has been a time of greatly increased economic opportunity, the cost of living in Guilford has risen alarmingly, due to larger and larger school budgets (and their effect on property taxes). The astronomical rise in property values and housing costs have made a house in Town beyond the reach of many people who would like to live here or stay here. Some of the cause for the increase in the cost of living is national, and some has to do with the arrival in Town of many newcomers, since it is well-known that population increases in a town inevitably bring increased costs for schools and town services.

Guilford is not the same town it was fifty years ago. Newcomers have added a great deal to the Town by volunteering at the Central School, by serving on Town Boards and

Commissions, by getting involved in conservation, and in many other ways. In turn, their values and attitudes have been shaped by the enduring small-town Vermont values of Guilford: neighborliness, hard work, love of nature and close families. Yes, Guilford is a bedroom community and three-quarters of us commute to work outside of Town each day. But the Town also remains a wonderful community where there is a rich 250-year-old heritage, a mosaic of beautiful agricultural and forested landscapes, a good school, and a population of individuals who work hard and care about each other.

### Demographics

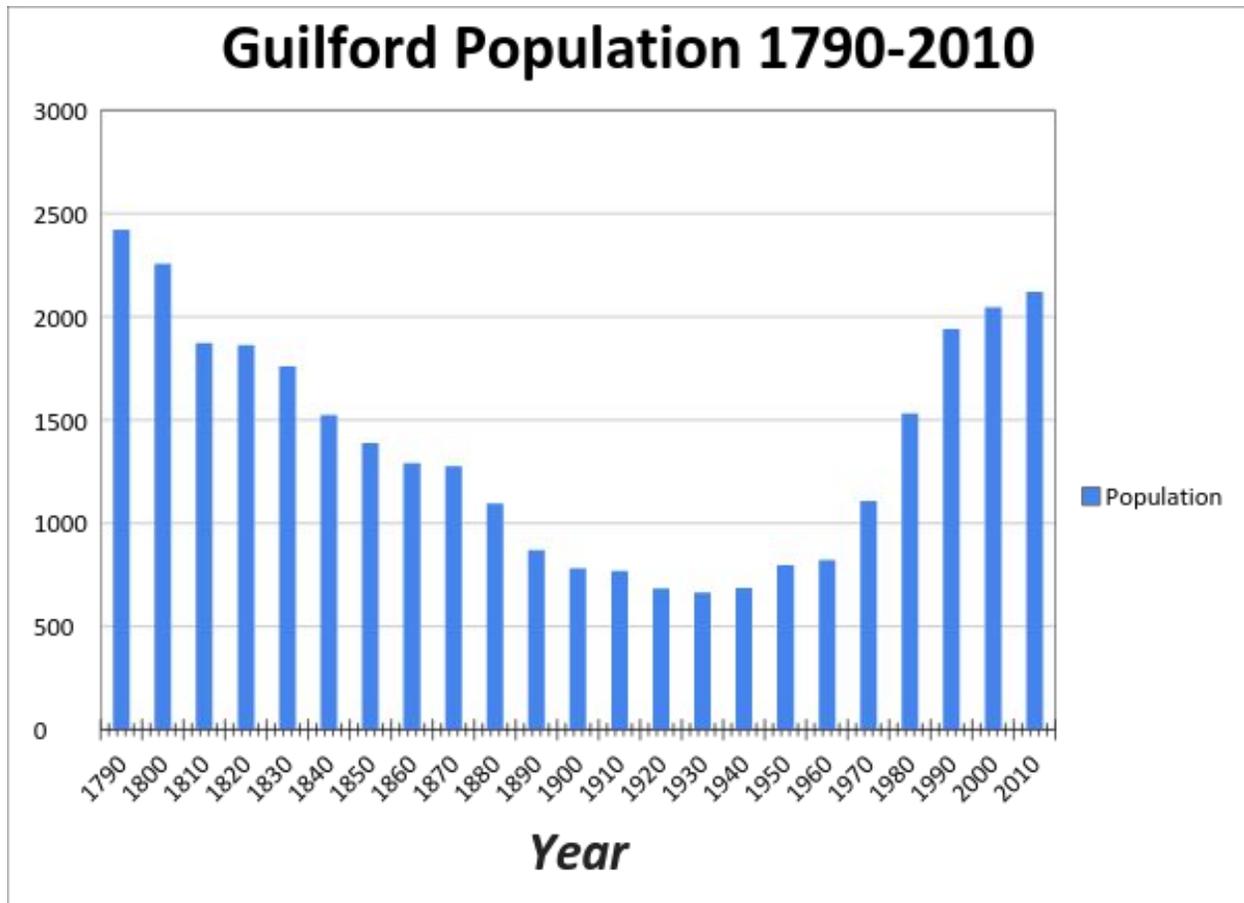
The population of Guilford in 2010, according to the US Census, was 2121, half male and half female, with a median age of 46.3 years. In looking at the different age groups, there is a relatively even distribution per each five year age group (under 5, 5-9, 10-14, etc.) through age 44 with the average number per group being 113. In the 45-70 age groups, there is an average of 186 per five year group; and there are 405 citizens 62 or older. There is still a dip in the 20-24 age group with 82, but this number is up from the last census. As of 2014, Guilford was one of two towns in the area experiencing an increase in population; the other is Marlboro.



In the 2010 Census, Guilford had 902 occupied housing units, with 93 considered to be seasonal, recreational, or for occasional use. 270 were built before 1940 and fewer than 100 were built per decade in the 1950s and 60s. Then there was a sharp increase in development: 195 houses were built in the 1970s, 171 in the 1980s, and 127 in the 1990s. Development has since slowed with only 91 being built in the 2000s.

In 2010, there were 811 family households averaging 2.52 people. The median household income was \$58,664, the median family income was \$68,232 and the median per capita

income was \$28,393. The majority of residents worked out of town with 241 working out of state. There were also 92 home based businesses.



### **GUILFORD'S ASSETS GOING FORWARD**

At the end of 2013 and into 2014, over 150 residents of Guilford participated in a multi-day, multi-phase project, convened under the auspices of the Vermont Council on Rural Development (VCRD), to envision the future of our town and select three major projects on which to concentrate. The purpose of the VCRD program is to actively connect grassroots community building efforts in towns across Vermont with statewide resources, expertise, and opportunities. The Guilford project brought together a broad mix of community members with visiting resource teams made up of Council members and statewide facilitators (State, federal, non-profit and philanthropic) to create intensive partnerships and tailor work plans for long-term local success. During this process Guilford

identified opportunities for revitalization of our community and growing its economy, including, among others:

1. develop a Guilford Center park,
2. build a farm and food network,
3. develop small business incubation space,
4. develop a farm to school and youth program,
5. start a business network,
6. improve community communications and connections,
7. redevelop the Grange building, and
8. develop preschool, early childhood, and after school programs.

Community members identified three priorities from among these opportunities: develop a small business incubation space in Guilford; redevelop the Grange Building; and support the development of the Church as a community center and early childhood education center. Many of the identified opportunities are embedded in these three priorities and/or are picked up in this Town Plan, to reflect the expressed will of the community.

One statement that arose from this project is: *“Small-town life offers wonderful and unique opportunities for the highest quality of life; but many towns struggle and can be challenged to find heart and optimism. Guilford has direction. It has a wonderful and diverse human capacity in a unique and splendid place. It has wonderful people engaged in a community campaign with a locally-defined vision for progress.”*

The full VCRD report is found on Guilford’s website: <http://www.guilfordvt.net>.

## Settlements and Land Use: Vision, Goals, Discussion, Policies, Actions

### VISION

*Guilford residents envision a town that maintains its rural character, protects its natural resources, and provides viable living, education, and economic opportunities to sustain us well into the 21<sup>st</sup> century.*

### GOALS and POLICIES

1. **It is the policy of the Town** to preserve open spaces, agricultural and forestry lands, and our natural resources.
2. Maintain village designation status for Algiers and Guilford Center.
3. **It is the policy of the Town** to strengthen, and direct growth towards, existing centers.
4. Promote current and future land use practices to increase safety against floods, ensure the viability of agricultural and forestry economies, protect our natural resources, and reinforce our compact development pattern.

### DISCUSSION

Guilford seeks to maintain its rural and community characteristics while allowing for moderate growth well into the future. While Vermont planning guidelines and the Planning Commission's sense of well-planned development call for new growth in 19<sup>th</sup> century settlement patterns around existing population centers (Algiers, Guilford Center, Green River and West Guilford [Hinesburg]), newcomers may prefer to live on a country road with few neighbors. However, village centers offer the benefit of more economical uses of public utilities, facilities, and services; we can preserve more of our forests and open spaces for future generations; our children have easier access to friends and community life in these small population centers; and, being close to neighbors, citizens are better able to take care of each other.

The alternative – land-intensive scattered development – could eventually make one part of Town just like another. We'd lose the farms, recreation and hunting areas, snowmobile trails, and the rural landscapes which make this such a special place. If everyone who moves to Guilford needs twenty acres around a new house, eventually every part of Town will look the same. We will fragment our forests and lose our wildlife habitat; farming will become extremely difficult or impossible as fields and mowings sprout houses; and the rural and pleasant character of the Town as we know it will disappear.

This section of the Town Plan is closely tied to the Proposed Land Use Map put forth initially in the 2005-2010 Town Plan. It represents efforts to protect what is most important about Guilford while allowing for moderate growth and change. The Proposed Land Use Map attempts to identify the important ridgelines, wetlands, farms, and large areas of wildlife habitats, beginning the process of preserving these critical resources for future generations. The categories of Proposed Land Use represent the vision of how we

can best balance current types of land use, the demand for new housing and other types of growth in the years ahead, and the need to conserve the natural resources and landscapes which make us happy to live in Guilford. We ask that you study the map carefully. The Proposed Land Use Map in no way prohibits or prevents development. We hope it will stimulate Town-wide discussion about how we can best conserve our forests, fields, and wildlife habitat while supporting ideas for well-planned and moderate levels of development. Let's use the map to plan now for the future, in order to preserve what we have for our children and grandchildren.

### **ACTIONS and POLICIES**

Vermont State statute requires that Land Use policies be consistent with the adopted Town Plan.

1. The Planning Commission will work with Town administration, commissions, and interested parties to create proposals for preserving the character of our settlements and land for all Guilford residents. Integral to the successful realization of such proposals are:
  - a. an online list of resources and agencies, and
  - b. hard copy information packet made available to current and new residents.
2. The Town will apply for a "Municipal Planning Grant" from the Department of Housing and Community Affairs to cover the cost of a design study for the Guilford Center neighborhood to aid in preservation of historic sites and determine feasibility of green space
3. **It is the policy of the Town of Guilford** to apply for renewal of its two Village Center designations when required. To do so, the Town will:
  - a. explain how designation helps implement the relevant goals in this Plan, linking the goals in the Plan to the relevant purposes and benefits of State designation. The plan shall explain previous, current and future revitalization activities.
  - b. include the designation boundary on at least one map. At a minimum, the Board Approved map can be included to meet this requirement. DHCD (the Vermont Department of Housing and Community Development) also recommends including the designation boundary on any maps that illustrate statements referencing designation.

### Agriculture and Forestry Policies

**It is the policy** of the Town of Guilford to:

1. Encourage the continued use of lands for agricultural and forestry purposes.
2. Promote productive and sustainable farming and forestry practices.
3. Conserve productive fields and forests as economic resources for future generations.

4. Discourage development which interferes with the productivity or potential of agricultural and forest soils.
5. Provide information to interested landowners about the Current Use program, and the possible benefits of enrollment.
6. Encourage citizens, when building a new house in an existing mowing, to site the house as close to the edge of the mowing as practical, in order to keep the field in production.
7. Discourage the development of new roads on agricultural lands or in large tracts of undeveloped forest.
8. Encourage the creation of conservation easements on large tracts of agricultural and forest lands.
9. Encourage the development of industries which utilize the products of Guilford's farms and forests, by processing raw commodities into finished goods; foster the development of 'value-added' industries and services and the marketing of these goods.
10. Encourage Guilford's farmers to apply for tax abatement from the Town when necessary, and for the Board of Adjustment to consider the importance of working farms to the quality of life in Guilford when making decisions about whether to grant tax abatement.

### Land Use Policies

**It is the policy** of the town of Guilford to:

1. Foster the preservation of forest and farmland through taxation based on Current Use.
2. Cooperate with organizations such as the Vermont Land Trust to conserve large tracts of land, provided such tracts remain open to certain public uses and have management plans.
3. Preserve agricultural lands for agricultural purposes, through available means such as an Agricultural Overlay or Agricultural Resource District and economic incentives such as the purchase of development rights.
4. Encourage development in or near existing hamlets.
5. Utilize smart growth principles to encourage small cluster housing developments, surrounded by preserved and undeveloped land, as an alternative to widely distributed development.
6. Protect our significant natural areas such as ridgelines, wetlands, wildlife corridors and large tracts of open and forested lands.
7. Preserve the rural and historic character of Guilford through the protection of our sites and buildings of special educational, scientific, architectural, archeological, and historic significance.
8. Improve and protect the current high quality of our air, our ground and surface waters, and our land and wildlife resources.

## Land Use Actions

1. The Town will continue to identify and map ridgelines, agricultural and forest lands, and wildlife corridors, and investigate opportunities to preserve them via economic incentives or conservation agreements.
2. The Planning Commission and Conservation Commission will work with neighboring towns to link conservation areas and critical conservation corridors across town boundaries.

Future development in the Town of Guilford is to be guided by the following proposed land use area designations:

### **Higher Density Mixed Use**

Purpose: to accommodate the highest density of uses and to encourage a mix of residential and commercial activities

Description: outskirts of Algiers Fire District outside the historic village center; additional areas along Rte. 5

### **Lower Density Mixed Use**

Purpose: to accommodate low density residential and mixed use (small business) development.

Description: areas such as Weatherhead Hollow Road north of the Fairgrounds, Creamery Road, south end of Bonnyvale Road, School Road

### **Residential**

Purpose: to encourage varying densities of purely residential development on suitable lands consisting of or in proximity to existing consistently residential development.

Description: areas such Slate Rock Road, Sugar House Hill Road, Weatherhead Hollow Road south of the Fairgrounds

### **Historic Village Areas**

Purpose: to preserve and protect the historic character of (relatively) densely settled, primarily residential, areas while making provision for cultural and municipal uses and accommodating some relatively small-scale commercial activity.

Description: historic area in center of Algiers, Guilford Center, Green River, and Hinesburg (West Guilford).

### **Agricultural Resource**

Purpose: to encourage agricultural, forestry, and/or other “resource-based” enterprises and to accommodate very low (minimal) density development.

Description: active agricultural lands, including farms, sugar bushes, and managed woodlands, and the many diverse farms in town.

### **Conservation**

Purpose: to preserve open space, natural resources, wildlife habitat, and ridgelines, especially in areas characterized by remoteness from infrastructure and services, by limiting development to the greatest extent possible.

Description: areas such East Mountain and Governor’s Mountain.

## **Critical Conservation Corridors**

Purpose: to preserve and protect critical links (connectivity) of wildlife habitat and travel corridors and open space.

Description: certain areas along roads that provide critical linkages of open space for wildlife travel corridors and recreation crossing transportation routes, such as just south of Guilford Center, the west side of Green River Hill, Lee Road.

*A word about the Wildlife Corridors on the Proposed Land Use Map: Vermont bear biology studies have shown that a genetically viable bear population needs 120,000 acres or more to survive for the long run. The average town in Windham County is only 30,000 acres so towns will have to work together if they wish to have populations of bear, moose, bobcat, etc. in the area. Neighboring towns have been researching wildlife road crossings and have traced a bear corridor stretching from the Green Mountain National Forest all the way to the South Pond area in Marlboro. From there the wild Hinesburg Brook brings bears, moose, etc. into the northwest corner of Guilford. If the people of Guilford would like to have bear and moose in town for the long run, greater protections will be needed.*

## Residents: Vision, Goals, Discussion, Policies, Actions

### VISION

*Guilford is*

- *a town that encourages young people to have a voice,*
- *a town that facilitates active participation with community leadership;*
- *a place where our children want to stay and/or come back to live, grow and raise their families; one that allows them to create and find meaningful work so that they can live successfully;*
- *a great place to grow up, a great place to come to for life to get better, and a safe and conducive environment in which to age in place;*
- *a town where people talk with each other and address the issues that concern them;*  
*and*
- *a town where neighbors support neighbors.*

### GOALS

1. Provide resources to enable development decisions that are collaborative and in the spirit of the Town's visions.
2. Improve community communications.
3. Nurture the "we're in this together" spirit.
4. Nurture the energy and sense of community exhibited in the 250th anniversary year.

### DISCUSSION

Our community of 2000+ individuals includes:

- children and youth (for whom we need day care, pre and post-school care for the younger set; and teen centers and work and volunteer opportunities for the older set);
- young families (seeking a viable environment in which to live, raise, and educate their children),
- individual entrepreneurs and small businesses (with needs for a solid infrastructure, including access to fast internet);
- individuals and families engaged in agriculture and forestry operations (which may benefit from wide-ranging visibility and support) or who want to live in Town but must or wish to make their living elsewhere; and
- a growing number of senior citizens who already do, or eventually may want to, age in place and/or avail themselves of more assistance than is currently available through health care, insurance, or fee-for-service providers.

Each of these population groups requires and/or would benefit from any and all steps that Guilford can take to strengthen, nurture, and maintain an engaged and supportive community. We saw three initiatives to do just this begin to take shape early in 2014 at the conclusion of the VCRD visits: develop a small business incubation space in Guilford; redevelop the Grange Building; and support the development of the Church as a community center and early childhood education center. It is the hope of the Planning Commission that, without losing sight of all the opportunities identified in the VCRD process, these three initiatives will inspire extended community involvement for the long-term benefit of all.

As a small and dispersed rural community, it has been hard to develop the resources of larger communities for pre-school services and early childhood education opportunities. Good work toward redeveloping the church in Algiers to serve many of the needs of a community center has already begun. A Task Force is active in expanding on and supporting existing efforts to plan and advance steps to develop community center resources at the church, especially in the area of child care services and other enrichment opportunities for youth in the community.

### **ACTIONS and POLICIES**

1. **It is the policy of the Town** that its leadership will access and leverage the range of regional expertise and resources that exists to serve local residents and businesses.
2. **It is the policy of the Town to** establish a task force to create, maintain, and publicize the following:
  - a. Directory of social services, including Guilford Cares
  - b. Directory of local businesses, including agricultural and forestry operations
  - c. Community calendars
  - d. Civic opportunities (commissions, boards, task forces, elected positions, etc.)
  - e. Welcome packages for newcomers
3. Encourage all who have internet access to subscribe to and use Guilford Front Porch Forum (<http://frontporchforum.com> and refer to [www.guilfordvt.net](http://www.guilfordvt.net) frequently for Town news
4. Support the revitalized Guilford Gazette; consolidate newsletter efforts and budgets across town to realize efficiencies of scale and communications.
5. Find ways to connect neighbors by attending school concerts, church-led initiatives, events at the Grange, the Guilford Fair, potluck dinners, etc.
6. **It is the policy of the Town to** ensure that the Town's address database is current and accessible for postal mailings (and email messages for those who opt in).
7. Establish a task force to coordinate volunteer opportunities in town, advance intergenerational contact, and overcome isolation (especially among seniors).

## **Housing: Vision, Goals, Discussion, Policies, Actions**

### **VISION**

*Guilford residents can secure safe and economically viable housing, and can age in place if they choose.*

### **GOALS and POLICIES**

1. **It is the policy of the Town that** any additional residential construction – permanent or seasonal – not be initiated unless adequate public facilities and services are available.
2. When drafting any land use regulation, **it is the policy of the Town to** consider diverse housing types in various locations, and to take low-income residents into consideration.
3. Understand the need for and feasibility of a senior housing project on current properties or new-to-the town properties; assess other age-in-place options that could be implemented for senior residents.
4. **It is the policy of the Town to** bring to a vote for resident approval, after fully informing residents, any development project that requires the Town to provide new or expanded services (e.g., road crews, emergency service, etc.) that may increase the tax burden.

### **DISCUSSION**

Land prices, a high tax rate, and ever-escalating construction costs combine to make the goal of owning and maintaining a home as much of a challenge now as in previous decades. Therefore the Town should explore (or welcome ideas for) housing options for its residents, options that will allow us to sustain our community and perhaps grow at a comfortable and economically-viable level. Such deliberations will help address concerns about younger people and our senior population raised during the 2013-14 town-wide Vermont Council on Rural Development (VCRD) discussions.

Our neighborhoods are economically diverse, not segregated into low, middle, and higher income areas, making it easier to understand and help each other. This fact should facilitate informed conversations around, and setting the direction for, any change and growth of our community arising from future building projects that may involve grant money. Although we understand that zoning is not an option at this time, we nevertheless encourage developers and appropriate Town bodies to engage the entire community through newspaper, open forums, the Gazette, and all available social media channels.

### **ACTIONS**

1. Encourage development in existing hamlets, not along Town roads.
2. Maintain and use the Guilford Community Loan Fund (provides affordable loans to lower income households to cover necessary repairs; *see Town's annual reports*).

3. Create a Senior Housing Task Force to work with the community to explore aging-in-place options (e.g., study the need for and feasibility of developing a senior living center, among other ideas) that could be implemented for senior residents to help seniors remain in their homes in the community and to serve as another anchor for the local economy.
4. Create an Affordable Housing Task Force to
  - a. examine and analyze the impact of affordable housing on Town taxes, services, and infrastructure.
  - b. analyze the way in which Town taxes affect the ability of people to become homeowners in our Town or to continue to be Town residents.
  - c. make recommendations for addressing issues discovered. For example, in a VCRD meeting someone suggested implementing a long-term tax stabilization program and tax breaks for keeping parcels together and supporting the long-term viability of farm operations.
5. The Selectboard and any involved parties must bring housing development issues that could impact the Town's tax rate, services, and infrastructure to the Town for consideration.

## **Infrastructure: Vision, Goals, Discussions, Policies, Actions**

(This section deals with climate change, community facilities, public utilities, town administration, public service (fire, police, EMS), and emergency management)

### **VISION**

*Guilford is prepared to ensure that its residents have access to convenient and up-to-date services including but not limited to education, town government, health, public facilities, public utilities, waste disposal, etc., being mindful of our environment, accommodating demographics as they change, and taking into consideration the impact on the Town's tax burden. Also, the Town is prepared to cope effectively with emergencies.*

### **GENERAL: CLIMATE CHANGE**

#### **Goals**

1. Be proactive in analyzing and planning for the increasing impact of climate change on infrastructure (roads, consequent demands for emergency service; communication networks, etc.).
2. Begin to anticipate short and long-term ripple effects of climate change in the United States, e.g., diminished water resources elsewhere in the country, and how that may lead to population shifts.

#### **Discussion**

The climate is always in a state of flux. But the general trend is it's getting warmer and wetter. The timeline of this change, in terms of seasonality, is not predictable - yet. Climate experts acknowledge that the biggest risk is not that the changes are coming, but that we don't know when. So we are required to be proactive in terms of risk management. It is expected Vermont will feel the most significant impacts in the following areas:

- agriculture,
- tourism,
- health care (especially for the elderly),
- disrupted infrastructure and transportation systems,
- challenges to the global supply system,
- the insurance industry (insurers are concerned about the unpredictability of climate change).

As a result of climate change, we already experience a paradigm shift that makes extreme weather events more likely and threatens to ever-more-frequently disrupt the lives of Guilford residents. Tropical Storm Irene is an obvious indicator of this type of event, but the smaller, localized storms that dump incredible amounts of precipitation in a short amount of time are also of serious concern. These often unexpected and unpredicted episodes turn small streams and brooks into raging rivers that wash away roads, flood homes, and create power outages.

Although drought may be an issue in Guilford, it's not likely. But other parts of the country are already experiencing massive water shortages. Eventually those with the will and means to move are likely to seek out areas of the country where water is plentiful. Guilford may be an attractive location for these "climate refugees" and an influx of people, not unlike that of the "back to the land" movement of the 1970s, should be considered and prepared for as best as possible.

### **Action**

The Planning Commission and Selectboard will work closely with local, State, and Federal experts to understand demographic, economic, AND environmental patterns and trends that will shape our future and impact the Town's infrastructure, including the impact of climate change.

## **WASTE MANAGEMENT**

### **Discussion**

Landfill materials such as food scraps, leaf and yard debris, and recyclable items take up limited landfill space and contribute to climate change by producing greenhouse gas emissions. The goal of Vermont's Universal Recycling (Act 148; <http://www.anr.state.vt.us/dec/wastediv/solid/act148.htm>) is to improve the diversion rates of these materials to prevent them from becoming landfill. Currently, Guilford is a member of Windham Solid Waste Management District (WSWMD). Vermont is phasing in bans on these materials and requiring parallel collection (at the same location where trash is collected). Universal Recycling will also develop convenient and consistent services for Vermont residents and businesses statewide. According to Act 148, municipalities are required to:

- implement a variable rate pricing system that charges for the collection of waste by volume or weight (by July 2015)
- provide containers for listed recyclables alongside all trash containers in public spaces (by July 2015) and, over the ensuing 5 years
- comply with phased-in landfill bans.

### **Actions and Policy**

1. **It is the policy of the Town to encourage cost-effective waste disposal practices that protect our environment.**
2. Ensure that the Town and its residents are informed about and able to comply with requirements of the Universal Recycling Law (Act 148) by July 2015.

## **HEALTH SERVICES**

### **Goals**

1. Health services shall respond effectively to challenges arising from water contamination, communicable diseases, and other issues that may arise, working

with State and Federal agencies and services to ensure that Guilford residents are in compliance with State regulations and not threatened by an unhealthy environment.

2. **It is the policy of the Town** that regional health facilities, services, and organizations shall be investigated, supported and utilized when they are in the Town's interest.

### **Discussion**

By law, every town in Vermont must have at least one Town Health Officer (THO) who is nominated by town government officials and appointed by the Commissioner of Health for a three-year term. Town Health Officers are given authority by Vermont statutes to investigate and mitigate any potential or existing public health hazard in his/her town. Each town has a local Board of Health made up of the town's selectboard and THO. The THO investigates all complaints, has extensive authority to take emergency mitigation steps, and enforces local health ordinances in Guilford. When exercising this authority, the THO must be careful to follow the due process procedures outlined in Chapter 3 of the State's THO manual.

The Town appoints a Health Officer whose duties include testing drinking water in apartment buildings, if asked, and organizing the Town's response to challenges arising from water contamination and/or communicable diseases. An individual may contact a health officer to complain of unsafe conditions in rental housing or on public or private property, or to report a septic failure, or an animal that might be rabid. The State is responsible for issuing septic system permits and investigating violations of septic regulations.

### **Actions and Policies**

1. **It is the Town's policy that** the Selectboard appoint a qualified healthcare professional to serve as the Town's Health Officer. One new function under this position is to assess on-going situations and crises that might be caused by drug abuse and create a proposal for addressing any concerns that arise.
2. **It is the Town's policy that** by law, the THO under the direction of the Selectboard,
  - a. shall make a sanitary survey of each schoolhouse, school lunch facilities, and any building used for public purposes, and
  - b. annually in the month of February report to Selectboard or the annual town meeting, as the case may be.

## **TOWN GOVERNMENT**

### **Policy**

**It is the Town's policy that** Town Government shall administer and manage the affairs of the Town so that matters of mutual interest are heard and dealt with effectively with the best outcome possible for all residents. The Selectboard will:

1. convene semi-annual joint meetings of Town boards and officers to facilitate communications and decision-making; convene other special meetings as necessary;
2. maintain a central filing system for all Town records and publish in one booklet and online all Town ordinances, regulations and standards;
3. estimate annually capital expenditures for the next five years, providing the Town with a Capital Budget that includes the Selectboard and the School Board;
4. ask the Planning Commission to assess and respond to proposed new developments in Town.

### **Discussion**

The official business of the Town is conducted at the annual March Town Meeting. The Guilford Selectboard conducts the business of the Town between Town Meetings, with the assistance of the Town Administrator.

## **FIRE and POLICE PROTECTION, EMERGENCY MEDICAL SERVICE, EMERGENCY MANAGEMENT**

### **Goals and Policies**

**It is the Town's policy that** the Town shall provide protection services to address threats to personal security and safety. Specifically,

1. The Select Board will determine adequate police protection (now provided primarily by Vermont State Police [VSP]) and the Town will continue to contract annually with the Windham County Sheriff's Dept. for limited road patrols and deploy the Town Constable, a sworn law enforcement officer, as appropriate.
2. The Fire Department shall remain affiliated with Tri-State Mutual Aid and Southwestern New Hampshire Mutual Aid systems, or any other such system deemed important by the Chief and Trustees.
3. The Town will continue to support the Guilford Volunteer Fire Department (through appropriations from General Funds). Such funds should be used to help provide for adequate expenses of the Department and replacement of firefighting apparatus and equipment as needed to provide for the safety of the firefighters and First Responders and for the protection of Guilford residents and their properties.
4. Fire ponds and dry hydrants should be encouraged throughout the Town. Any person planning a pond or a pool should be encouraged to discuss the plans with the Fire Chief or designated representative.

### **Discussion**

Fire protection and emergency medical service is provided to the Town by the Guilford Volunteer Fire Department (GVFD). Founded in 1949 and incorporated in 1955, the GVFD is headquartered at 108 Guilford Center Road. It currently maintains a number of vehicles and equipment, including a pick-up, a pumper, a tanker, a trailer, and a rescue sled. It provides firefighting protection for buildings and its specially trained First Responders

respond to all Town 911 calls for emergency medical and accident services, including the nearly four miles of Interstate 91 within the Town boundaries. Many volunteers serve and respond to more than 200 calls each year.

The protection of the Town from natural and man-made disasters is vested in the Emergency Management Organization (EMO). The EMO is primarily responsible in cases of fire, flood, storms (ice, snow, and wind), earthquakes, radioactive release, terrorist attack, energy shortages, etc., as well as any other emergencies.

In March, 2002 the Town adopted an Ordinance for Emergency Management of the Town of Guilford. The Selectboard appoints a volunteer organization for emergency management utilizing to the fullest extent the existing local and regional agencies, organizations, and individuals. These volunteers are organized to manage a Guilford Emergency Operations Center (EOC), and are based in the Fire Department. The Selectboard also appoints an Emergency Management Director (EMD) and (optional) a co-EMD. They are responsible for emergency operations and administration in Guilford.

The Town uses three existing emergency plans:

1. Local Emergency Operations Plan (LEOP): adopted March 15, 2014 and to be updated and re-adopted annually; purpose is to provide guidelines and information to emergency responders. It provides a list of resources and personnel available in an emergency and appropriate Incident Command System (ICS) forms and procedures. It also outlines certain personnel responsibilities in given situations and contains specifics regarding local emergency operations.  
(<http://www.guilfordvt.net/>)
2. The State-designed Radiological Emergency Response Plan (RERP) - for the Entergy Vermont Yankee Nuclear Power Plant. The deadline for modifying this plan is July 31, 2016 and falls under the purview of the Vermont's Homeland Security/ Emergency Management department.
3. An All Hazards Plan developed by the Local Emergency Planning Committee (LEPC) in cooperation with the Windham Regional Commission. (The LEPC is a regional committee of the local emergency officials from each regional town; Guilford's Co-EMDs serve as local representatives.) The LEPC provides comprehensive guidelines for managing natural and man-made hazard emergencies.

### **Actions**

1. Encourage residents to be proactive about planning for and meeting emergency needs; create a database of available emergency services should a weather occurrence render roads impassable or knock out power for an extended period of time. Non-perishable foods and resilient backup power sources are essential.
2. To ensure Guilford's air quality, participate in the current programs which monitor Vermont Yankee waste storage and removal.

## **COMMUNITY FACILITIES and PUBLIC UTILITIES**

### **Discussion**

Land adjacent to public or quasi-public facilities, and services to such facilities (including but not limited to highways, fire station, school, library, parks, the Fairgrounds, hiking trails), shall be used in such a manner as not to endanger, jeopardize or interfere with the public's use and enjoyment of or access to the facility, services, or lands.

### **Policies and Actions**

1. Support the Town in planning, financing, and implementing an efficient system of public facilities and services to meet future needs.
2. To reduce their impact, **it is the Town's policy that** new or expanded public utility corridors (including power lines and telecommunications towers) shall be placed, where feasible, within or parallel to existing roads and utility rights-of-way. At the same time, every effort shall be made to preserve tree lines along our roads, which may require power lines to be placed in a field behind a tree line, a short distance from the road.
3. **It is the Town's policy to** plan construction or expansion of public facilities in a manner that will minimize any effect on adjoining lands and property. The construction or expansion of public facilities shall not significantly reduce the resource value of adjoining forestry or agricultural lands, unless there is no reasonable alternative.
4. **It is the Town's policy that** privately owned facilities and services, such as water or sewage systems, be built to meet Town specifications. Any privately owned community-type facility or service will not be accepted by the Town until the cost of maintaining or servicing such facility conforms to the Town's operating budget.
5. **It is the Town's policy that** private commercial development will not be allowed unless it is bonded to insure that requisite infrastructure is fully complete. No parcel within the development should be transferred without such a bond.

## Economy and Business: Vision, Goals, Discussion, Policies, Actions

### VISION

*Guilford's economy is founded on a community-oriented, resident-led, collaborative philosophy that understands and leverages community relationships and resources and recognizes the importance of connectivity beyond Guilford. The economic environment of the Town will thrive and grow in the coming years not only by ever-increasing support for agriculture and forestry operations, tourism, and our current roster of businesses but, importantly, also by developing the appropriate foundation for successful small business development and new entrepreneurial enterprises in the service and knowledge economy connected to commercial enterprise outside of Guilford, Windham County and the State of Vermont. The following principles underlie this vision. Guilford's economic and commercial vision will:*

- *identify and leverage local resources, talent and expertise;*
- *reduce carbon emissions and minimize fuel expenses;*
- *facilitate and reinforce activities that adapt to and actively work to mitigate the impacts of climate change;*
- *facilitate co-work and collaboration between enterprises and the diverse talents and skills of its residents;*
- *create efficiencies within the community which support and increase economic resilience with sustainable tax revenues;*
- *help our citizens feed and support themselves; and*
- *actively assist our residents most in need.*

### GOALS and POLICIES

1. **It is the policy of the Town to** enhance residents' awareness of current and future Town businesses (primarily, but not exclusively, agriculture and forestry-related, tourism, and trade-based) by maintaining up-to-date Town website (and Gazette) listings, including the Town's inventory of assets (physical spaces), human resources (expertise, capabilities and certified, bonded, or licensed skills), and activities (business and community engagements and events).
2. **It is the policy of the Town to** access all available regional and state programs that guide and support economic development, including but not limited to the following agencies and initiatives:
  - a. Agency of Agriculture, Food, and Markets: for working lands;
  - b. Department of Forests, Parks, and Recreation: for outdoor recreation, healthier economies;
  - c. Agency of Commerce and Community Development: for Municipal Planning Grants, business-related economic and service resources;
  - d. Brattleboro Development Credit Corporation (BDCC) and Southeastern Vermont Economic Development Strategies (SeVEDS): for workforce training and assistance, economic resource planning and development, acquisition of

- rentable workspace to support industrial, manufacturing, service, educational and art-based enterprises, and to ensure participation and monitoring of the dispensation of Vermont Yankee-related funding;
- e. Vermont Council on Rural Development (VCRD): for access to State-based resources and expertise, grant opportunities, and access to regional and State officials.
3. **It is the policy of the Town to** work to finalize the adoption of reliable broadband and cellular service throughout Guilford in keeping with the State's plan through Vtel, Fairpoint, and other service providers to ensure service and connectivity across Guilford's main commercial centers and, in particular, to rural and residential areas;
  4. The Selectboard, Planning Commission, and Small Business Incubator Space task force will work together to create and/or acquire physical, and complementary online, co-shared and co-working spaces to facilitate multiple trades and service businesses (cottage industries) that access and provide a network of support for existing and future businesses in Town. Such spaces should:
    - a. be based on needs as assessed by the Community (see action steps below) and take advantage of community-based, revitalized building space;
    - b. meet the multiple use needs, including artisan, manufacturing, educational and other activities that reflect the community's commercial pursuits, training and continuing education opportunities; and
    - c. be a venue of collaboration and partnership, to create efficiencies for commercial endeavors, create work opportunities across skills and generations, and also to address seasonal realities.
  5. The Conservation Commission will maintain an accurate inventory of arable land so that the Town's residents can know what kind of agricultural products can best be supported sustainably.

## **DISCUSSION**

Guilford recognizes that a vibrant and sustainable economy and business environment is premised on a community that meets (or exceeds) the basic family and societal needs for its citizens. Such an environment encourages our children to stay and/or return to the area to grow their families, attracts other entrepreneurs, develops connections with educational programs in the region and beyond, broadens the economic base and, in turn, grows the tax and resource base to support Guilford. These activities facilitate a safe and productive learning environment for our youth and young families, and a safe community for older generations.

Current Guilford businesses are diverse -- landscape and plowing services, foreign language translation, bookkeepers, pet grooming and other animal husbandry services, tree care, farming, forestry, building trades, truck and auto repair, and a number of art-based professional endeavors (refer to [www.guilfordvt.net](http://www.guilfordvt.net) for the up-to-date list).

Increasingly, Guilford residents have embraced (or depend on) employment opportunities generated well outside of the region (i.e., Boston, New York, Washington, DC). To facilitate their ability to carry out their professional obligations from Guilford successfully, they must rely on a strong technological foundation. The relatively close proximity to regional, national, and international transportation options, coupled with our lifestyle, family and community support services, makes living in Guilford an attractive choice. Yet, the lack of high-speed internet and cell phone signal makes it exceedingly difficult to succeed in much more than current land-based economic ventures.

Guilford must strive to become a place to which our children, along with other younger individuals and families, will want and be able to live and build a sustainable economic future through initiatives that extend beyond opportunities afforded in the region, let alone in Guilford. To enable such an environment, Guilford needs a solid foundation with superior cellular and information technology capabilities for home-based or co-shared business operations. It is no longer possible in this 21st century to be a successful productive community unless we provide access to robust, high-speed and low cost broadband internet. Such a foundation is not only essential to new business formation, it allows for younger generations to create and facilitate their professional enterprises and activities, and better connects Guilford-based businesses and residents with the resources and skill sets that will allow for better collaboration and growth.

In addition to creating a more hospitable environment for higher-tech ventures (which will also benefit the more traditional land-based businesses in Guilford) we also recognize that farming and forestry operations continue to be a vital mainstay of Guilford's economy. We must take steps to ensure that these operations benefit from the ever-expanding awareness of the importance of "local, organic, and sustainable" foods (fruit and vegetables, maple syrup products, dairy, meats, etc.). A vigorous agriculture and forestry base can also help increase visitor and tourist traffic into Guilford, thereby enhancing the local and state economy.

Our farmers may benefit from the Value-Added Food Production movement in Vermont. It is important to have the facility and technical assistance to develop the capacity to add value to the raw products grown by rural Vermonters. The USDA Value Added Producer Grant Program helps independent producers increase their revenues by diversifying their production. The intent of the program is to help farmers receive a greater share of the consumer's dollar for the value-added agricultural products they produce. USDA Rural Development's mission is to "increase economic opportunity and improve the quality of life for people who live in our rural communities. In addition to the USDA, there is The Northeast Organic Farming Association of Vermont, a nonprofit association of farmers, gardeners, and consumers working to promote an economically viable and ecologically sound Vermont food system for the benefit of current and future generations. NOFA Vermont was founded in Putney in 1971, making it one of the oldest organic farming associations in the United States.

<http://blogs.usda.gov/2012/03/16/value-added-producer-grants-promote-improvements-to-vermont-dairy-new-hampshire-sausage-operations/#sthash.mHvdm7dB.dpuf>

Importantly, Guilford's citizenry is a diverse population with skills and expertise that can complement its farming and forestry enterprises, through which collaborative opportunities can lead to employment opportunities and the building and reinforcing of businesses on which the community can sustainably rely. As Guilford works to facilitate such a business environment, these efforts will also complement other important elements of this Town Plan, including those goals pertaining to a vibrant citizenry, healthy families, multidisciplinary education opportunities for the community's youth and its adults, commitment to sustainable and local environmental practices and energy efficiency, and active engagement between residents and commercial enterprise.

### **ACTIONS and POLICIES**

1. **It is the policy of the Town that** the Selectboard and other interested parties (residents and businesses) push Vermont Telecommunications Authority to complete the work of bringing town-wide cellular and reliable *high speed* (5 mbps or above) internet to Guilford. The Selectboard should work with existing providers (VTel, Comcast, Fairpoint, etc.) to ensure appropriate interim solutions while such work is being completed.
2. The Town Administration should conduct a full and complete inventory of Guilford's key assets as stated in Goal 1 above
3. **It is the policy of the Town to** encourage opportunities in agriculture and forestry which use sustainable practices. To this end, the Conservation Commission will include in its inventory an accurate assessment of arable land and assess what/when development pressure is likely to reduce available land for agriculture; also, to develop an understanding of what kind of agricultural products can best be sustainably supported if/as climate change impacts our area.
4. **It is the policy of the Town that** Guilford's Planning Commission and/or Town Administration is to create a productive Economic Development/Small Business Incubator Space Task Force (ED/SBIS) that is specifically tasked to:
  - a. Understand the needs of Guilford-area farm/agriculture and other businesses and their current operational challenges and identify local resources that can be leveraged to grow and sustain their businesses.
  - b. Catalogue and ensure that all relevant business and skills directories are up-to-date (or established) and made accessible on the Town Administration website (and in community centers – e.g., Grange, Country Store, etc.).
  - c. Organize/facilitate initiatives for networking, cross-working opportunities and partnerships with other Guilford businesses and Town organizations (e.g., Guilford Central School, Guilford's churches, the Grange, Guilford Cares, The Guilford Country Store, Food Connects and others).
  - d. Identify outlets/channels and events in which Guilford businesses can stimulate higher sales and distribution of their products and services, within

the Town and Windham county, as well as throughout the State and the Northeast region more broadly.

- e. Assess mechanisms by which agricultural operations in Guilford may benefit from Value-Added Food Processing opportunities.
- f. Establish benchmarks to measure progress and success in the Town's economic development, including:
  - i. Inventory of new businesses created
  - ii. Number of new families
  - iii. Elementary-level youth year to year
  - iv. New jobs created – as a whole and relative to business make up
  - v. Tax revenues and effects on Town budget
  - vi. Increase in new homes/businesses served by cell and broadband services / bandwidth growth
5. **It is the policy of the Town to** encourage opportunities for citizens to develop employable skills and small-scale, including technology-related, businesses. To this end, the Planning Commission and/or Town Administration, together with a newly reconstituted ED/SBIS Task Force, should communicate with Guilford businesses, as well as to the Selectboard and other involved Town agencies, regarding available regional and state programs that guide and support economic development.
6. **It is the policy of the Town to** encourage environmentally sustainable practices in all business operations in Town, including but not limited to agriculture, forestry, auto repair, and construction. The Brattleboro Development Credit Corporation (BDCC) may be able to provide guidance.
7. **It is the policy of the Town to** ensure that businesses and industries act in an environmentally responsible manner, including the safe handling and disposal of toxic waste and hazardous materials.
8. **It is the policy of the Town to** promote economic growth that is consistent with local and regional objectives, including this Town Plan and the Windham Regional Plan [*see appendices*].
9. **It is the policy of the Town to** continue to participate with Brattleboro, other surrounding towns, and the Windham Regional Commission in planning for future economic development.
10. The Selectboard will appoint a representative to work with the BDCC and SeVEDs to monitor the ongoing wind-down of Vernon's Vermont Yankee power plant and take advantage of corresponding economic and other resources resulting from its transition.
11. **It is the policy of the Town to** encourage the concentration of any future growth of light manufacturing and non-home-based business and services in areas along Route 5 which are already developed, particularly in, or adjacent to, the Algiers Sewer District.
12. Allow for designated breaks for critical wildlife corridors, per the Proposed Land Use Map of this Town Plan when future development in the Town is being planned.

## Recreation: Vision, Goals, Discussion, Actions

### VISION

*Guilford provides plentiful opportunity to enjoy its natural attributes, including its small-town and rural character, through a wide range of healthy and welcoming recreation opportunities for citizens, as well as to visitors who may contribute to improving the local economy.*

### GOALS and POLICIES

1. **It is the Town's policy to** encourage recreational areas and activities, guarding against possible adverse effects on the land and landowners.
2. **It is the Town's policy to** encourage use and development of land and waters in such a way as not to significantly diminish the value and availability of existing outdoor or potential future recreational facilities.
3. **It is the Town's policy to** create a system of safe bypaths for bicyclists, horseback riders, and pedestrians along town roads, and inventory these bypaths and keep it current on the Town's website and Transportation Map.
4. **It is the Town's policy to** plan systems of recreational trails for hiking, cross-country skiing, snowmobiling, horseback, ATV riding, and bicycling, and acquire easements for the Town for public use and to keep motorized and nonmotorized recreation trails separate and show on the Transportation Map.
5. **It is the Town's policy to** preserve scenic views and other scenic resources that may require protection.

### DISCUSSION

The only Town-owned recreational facilities are the playing fields at the Guilford Central School. Voters also recently approved the opening of a Town-owned lot (#240.1) in Guilford Center Village for the creation of a common green and natural playscape. This decision clears the way for a dynamic gathering spot in the heart of Guilford, from which other surrounding recreational opportunities could be readily accessed. The State owns the two largest ponds in Town, Weatherhead Hollow Pond (and its boat access) and Sweet Pond (currently in need of repair and not a pond) and the trail around it; there are popular swimming holes on Broad Brook and Green River. The Guilford Recreation Club owns the playing field by the fairgrounds on Weatherhead Hollow. These are made available for public use. Adjacent to, but not part of, the Fairgrounds are tennis courts and a baseball/softball diamond. A nearby wooded area includes a "Boy Scout" cabin. Private land is often made available for public use with permission.

Opportunities for outdoor recreation abound: hunting and fishing; hiking, horseback and ATV riding; cross-country skiing, snowmobiling on established and well-marked trails; and picnicking. The Andrew Weeks Forest in Guilford Center (187 acres of conserved land)

provides a nice walking trail to the old Guilford Mineral Springs site. A large number of class 4 roads provide picturesque hiking to those who are aware of them. A VAST (Vermont Association of Snowmobile Travelers; <http://www.vtvast.org/>) snowmobile trail (also used by cross-country skiers) throughout southern Vermont is linked to Vernon to the east, Halifax to the west, and Leyden to the south.

The private Sportsman's Club offers shooting and archery target practice and training courses to area youth and adults alike. It has a 25 yard pistol range, a 50 and 100 yard rifle range, and a trap range. It also has an extensive archery range. The trap range is open to the public on Saturday mornings. In spring, summer, and fall the club holds monthly rifle and pistol shoots open to all.

In December 2013 the VCRD Community Visit Team experts advised that:

- The Windham Regional Commission has mapping capabilities and provides technical assistance.
- Town citizens are more apt to use a playground if it's not hidden away.
- With "good local energy" the Complete Streets program could be valuable to the Town.
- The Town should be respectful of property owners: freeing up land for trail use through proposing easements could take years and generations.
- The I-91 Welcome Center in Guilford could be a great asset in advertising Guilford's range of recreation facilities and activities.
- With the great momentum evidenced in Guilford, numerous recreation resources, a Conservation Commission that is doing some mapping, a Fair Committee primed for more ideas, and the school, the experts asked if the leadership could be found to tie this together for the benefit of the community.

## **ACTIONS**

The Planning Commission recommends the Town appoint a Recreation Commission, to include or take the place of the current Recreation Club, to plan for and inventory safe byways, publicize recreational resources, and monitor the impact of current and future recreational facilities and activities on land value and usage. Specifically, the Recreation Commission will

1. Explore the possibility of using State aid and/or private funds for the development and maintenance of recreational trails in the Town.
2. Seek funds for planning for and construction of a system of paths along our roads to provide for the safety of pedestrians, horseback riders and bicyclists.
3. Seek funds to identify and acquire easements for a system of recreational trails for hiking, cross-country skiing, snowmobiling, horseback riding, and bicycling.
4. Support the efforts of residents to preserve recreational facilities on private land, such as the Green River Dam, a structure of considerable recreational and historic value to the Town.

5. Be responsive to private landowner concerns about property rights and liabilities if opening up their property for recreational purposes.
6. Encourage Town-wide recreational events (e.g., foot and snowshoe races, bicycle rides, walks and hikes, etc.) and coordinate these efforts with other Town groups.

## **Transportation: Vision, Goals, Discussion, Policies, Actions**

### **VISION**

*Guilford's transportation infrastructure and systems provide safety, convenience, and service commensurate with need; respect the quality of the natural environment; and avoid waste and inefficiency. They aim to fit the pattern of traffic, present and future, to the environment envisioned in the Town Plan, rather than allowing the demands of motorists and engineers to dictate the shape of the Town.*

### **GOALS**

1. Preserve the scenic wealth of our landscape for future generations.
2. Increase the safety of our roads for pedestrians and bicyclists according to Act 34.
3. Increase the availability and convenience of public transportation.
4. Establish a bike trail network for residents, visitors, and tourists.
5. Construct new access points (driveways and private roads) to Town-maintained roads in a safe and environmentally-responsible manner.

### **DISCUSSION**

The Town road system includes a section of Interstate highway I-91, which runs north and south for 3.9 miles in two sections along the east side of Town; one U.S. highway, Route 5, which also runs north and south roughly parallel to I-91 for 6.8 miles, in two sections along the east side of Town; and 66.9 miles of Town highways: none in Class 1, 17.25 miles in Class 2, 49.55 miles in Class 3, 8.92 miles in Class 4, and 4.05 miles of Legal Trails. There are approximately 10 miles of private roads named for E911 purposes. Currently there are no additional Federal or State highways planned for the Town.

Algiers Village is a relatively compact area with residences, churches, a general store, services, and businesses. A sidewalk extends from Coolidge Highway (Route 5) along a short distance of Guilford Center Road. Additional sidewalks, pathways, and traffic calming measures would improve safety and access for pedestrians and bicyclists who often feel threatened. There is regular daily bus service between Brattleboro and the Guilford Country Store.

In July 2011 the Vermont State legislature passed the Complete Streets program (<http://www.leg.state.vt.us/docs/2012/Acts/ACT034.pdf>) requiring municipalities to consider multi-modal transport as roads come up for repair. This program allows the Town to address the very real concerns for pedestrian and bicyclists' road safety piece-by-piece.

Driveways and private roads that intersect with Town roads can have an adverse impact on Town roads. If these are not properly constructed and maintained, severe weather may create problems that increase the burden on not only the Town's Highway Department but also on emergency services.

## **ACTIONS and POLICIES**

1. **It is the Town's policy that** the transportation system provides the needed convenience and service, while respecting the integrity of the environment.
2. **It is the Town's policy that** the Town will develop, expand and/or maintain public utilities within or parallel to highway or public utility rights-of-way corridors, so that they may be readily maintained. The intent is to reduce adverse physical and visual impact on the landscape and achieve greater efficiency in expenditure of public funds. This includes the possibility of placing wires and transmission lines a short distance from the road, in a field, to preserve a tree line.
3. **It is the Town's policy that** the town will retain all present public rights-of-way, whether or not they are currently being maintained by the Town. No tract of land should be allowed to become "landlocked" by the relinquishment of a public right-of-way.
4. **It is the Town's policy to** ensure that the Complete Streets program is kept on the front burner over the years. Before new construction or major reconstruction of roads and highways is undertaken, the Town will consider the effects of the improvement on traffic speed as well as the possibility of adding biking and pedestrian lanes. Within Algiers Village, the Town shall consider the feasibility of extending the existing sidewalk and pathways, along with improving pedestrian access and safety.
5. **It is the Town's policy that** speed limits in Town shall be enforced: explore the costs of additional policing of speed limits on Town roads; investigate traffic calming measures and lowering speed limits in village centers to increase driver awareness of populace and conditions.
6. **It is the Town's policy to** oppose any further major Federal or State highways through its territory.
7. **It is the Town's policy that** further paving of existing Town roads shall be subject to review by the Selectboard, and should be based on engineering studies, the relative cost of maintenance, and available funds. New paving projects shall be placed before the voters at Town Meeting after an informational meeting has been held.
8. **It is the Town's policy that** the Town Road Commissioner will enforce Town regulations regarding culverts, run-off, set-backs and safe engineering when approving new driveways and private roads and enforce the existing Driveway Ordinance, including slopes when entering public roads, adequate culverts and proper drainage, safe engineering and adequate lines-of-sight for oncoming traffic.
9. **It is the Town's policy that** public parking areas shall be provided in hamlet areas as the need arises, especially in Algiers and Guilford Center. In order to achieve this Policy, the Town should consider purchasing, or accepting as a gift, property that becomes available in these areas.
10. **It is the Town's policy that,** when bridges or public roads need to be replaced, the Town shall consider the impact of the new structures, both in terms of public safety

and convenience and of the rural character of the Town (i.e., the temporary closure of the bridge on Route 5 at Melendy Hill and Broad Brook Roads or the Green River covered bridge).

11. **It is the Town's policy that** the Town shall cooperate with surrounding communities to promote Amtrak and other appropriate means of mass transportation in the area.

## **Historic and Cultural Resources: Vision, Goals, Discussion, Policies, Actions**

### **VISION**

*Guilford will continually protect and preserve its historic and cultural resources.*

### **GOALS**

1. Identify, protect, and preserve important historic and cultural resources of Guilford including outstanding water resources and wetlands, agricultural and forest land, significant scenic landscapes and views, important archaeological sites, and historic structures, sites and districts.
2. Educate citizens of Guilford about historic and cultural resources in Town.

### **DISCUSSION**

Guilford has a long and rich history. During Guilford's early years as an official State town, it was the largest town in the young state of Vermont. There are many buildings and sites of historical and cultural significance that deserve respectful consideration in our efforts to preserve Guilford's historical and cultural heritage. This heritage forms the foundation for Guilford's current and future vitality and Guilford's citizens have repeatedly and clearly conveyed the message that protecting this heritage is an important priority. The loss of cherished historic and cultural resources diminishes a community's identity and ignores the rights and needs of future generations. The wise use and preservation of these Guilford attributes are a matter of the public good, as well as being vital to future of our Town.

At present, there are 42 identified historic buildings or sites in Town. These include federally and state designated resources as well as locally recognized resources. There are also several homesteads and homes of significant historical and value to the Town.

### **ACTIONS and POLICIES**

1. **It is the Town's policy to** identify, maintain, and preserve archaeological, architectural, and historic sites and districts.
2. When considering Town ordinances affecting commercial activity, **it is the Town's policy** that the location of businesses shall be governed by the concept for protecting and preserving the rural character of the town.
3. **It is the Town's policy to** support the Cemetery Commission's efforts to ensure the integrity of the Town's cemeteries.
4. Update the Town's Historical Sites map to reflect the 1961 Planning Commission map and other known sites of interest to Guilford not currently listed.

## **Historic Sites in Guilford**

1772	Benjamin Carpenter House	1845	Green River Tavern
1791	Brick School House	1837	Guilford Center Meeting House
1896	Broad Brook Grange Hall	1891	Guilford Free Library
1819	Broad Brook House	1804	Guilford Mineral Springs
1814	Bullock Farm	1790	Guilford Mineral Springs Farm
	Captain Henry Chase Tavern		Herm Ashworth House
1819	Christ Church	1774	Houghton Tavern
1855	Community Church		Indian Rock
1838	Green River Church	1800	Old Town Pound
1873	Green River Covered Bridge	1819	Tontine Building
	Green River Dam	1821	Town Hall - Guilford Museum
	Green River Mill Dam	1818	West Guilford Baptist Church
	Green River Mill Foundation	1890	West Guilford Blacksmith Shop

## **Guilford Cemeteries**

Baker Cemetery	Groll Cemetery
Billings Cemetery	Guilford Center Cemetery
Blanchard Cemetery	Lee Cemetery
Burrows Plain Cemetery	Maplehurst Cemetery
Carpenter Cemetery	Stark Cemetery
Christ Church Cemetery	Weatherhead Hollow Cemetery
Colgrove Cemetery	West Guilford Cemetery
Franklin Cemetery	Wilkins Hill Cemetery

## **Natural Resources: Vision, Goals, Discussion, Policies, Actions**

### **VISION**

*As stewards of our land, Guilford volunteers, leaders, and residents will anticipate change and manage growth in a way that conserves our natural resources and ensures sustainability for future generations.*

*The health and vitality of the Guilford community is inextricably tied to our natural environment. We are fortunate to have diverse and abundant natural resources critical for food, shelter, recreation, aesthetic sustenance and economic well-being. Careful planning is required to maintain the quality and abundance of these resources over time.*

*Global and local economic and environmental pressures will continue to place our natural resources at risk. Because of this it is important that we consider the larger context beyond Guilford's borders as we plan for the conservation of our farmland, forests, water resources, significant natural communities and wildlife habitat. Only through regional cooperation and with an informed citizenry will we be able to make substantive decisions and take meaningful action in stewarding our natural resources into the future.*

The following important topics are included in our Town Plan discussion of Natural Resources: Earth and Mineral Resources; Wildlife and Natural Community Resources; Climate and Air Resources; Water Resources; and Forest and Agricultural Resources.

### **GOALS: General**

1. Preserve and improve the quality and ecological integrity of our air, land, water and biotic resources.
2. Improve public awareness of and access to information on current best practices for land management, conservation, and related topics.
3. Encourage appreciation of Guilford's natural resources and enjoyment of its open spaces.

### **DISCUSSION: General**

A diverse and dynamic natural environment is fundamental for maintaining a healthy and vital community. Guilford is fortunate to possess diverse natural resources that are critical for food, shelter, and economic well-being, as well as recreation and aesthetic sustenance. Planning is required to make these resources sustainable over time.

Global and local pressures increasingly threaten our natural resources. Thus, it is important to consider the larger context beyond Guilford. Preserving farmland, forests,

water resources, significant natural communities and wildlife habitat is possible only through regional cooperation and with an informed citizenry.

The following important topics are included in our Town Plan discussion of Natural Resources: Earth and Mineral Resources; Wildlife and Natural Community Resources; Climate and Air Resources; Water Resources; and Forest and Agricultural Resources.

### **POLICIES: General**

#### **It is the Policy of the Town of Guilford to:**

1. Increase our knowledge of Guilford's ecology and provide a deeply informed foundation for the planning of conservation efforts, development, and responses to natural disasters. This empowers us to understand what we have, how resources interact with each other, and how our environment may respond to various pressures so that we can direct efforts to protect these resources or adapt to future changes.
2. Marry the conservation of natural resources with the needs of our agricultural, forestry, recreational, and other Town needs and interests.
3. Encourage land use that practices that maintain and/or improve the health of our natural resources and discourage practices that degrade or put at risk our natural resources.
4. Protect and preserve significant natural areas, as well as sites of special educational, scientific, historical, architectural or archaeological significance or beauty.
5. Support sound siting of energy facilities, cell towers, and other infrastructure by ensuring that new development undergoes adequate environmental review, avoids fragmentation, does not cause undue harm to Guilford's natural resources, and adequately considers site constraints and facility requirements.
6. Require, where possible, that public utilities and transportation facilities integrate use of the same corridors in order to minimize the environmental and aesthetic impacts of fragmentation.
7. Identify, establish, and maintain reserves for wetlands and prime agricultural and forest lands.
8. Support Land Trusts and other conservation organizations and programs in preserving and restoring forest lands, agricultural lands, and other important natural and cultural resources.
9. Purchase or accept rights to properties that need protection and/or would be of benefit to the Town; encourage and support the purchase or lease of private property for public use; and support a mechanism, such as Guilford Preservation, Inc., whereby these transactions are possible.

## **ACTIONS: General**

1. The Conservation Commission will undertake a systematic and comprehensive natural resources inventory, identifying and mapping important plant and wildlife habitat, including rare, threatened, and endangered species, forest habitats, tree diversity, natural communities, remnants of old growth forests, surface waters (including waterways, ponds, wetlands, and vernal pools) and groundwater sources, significant natural areas, rare elements, soils that are important for agriculture and forestry, higher elevations, and steep slopes, etc. A natural resources inventory and a plan for communicating the status of this inventory over time as it pertains to land management and conservation and our quality of life will facilitate thoughtful stewardship. This inventory will be accomplished by:
  - a. securing funding for the inventory, mapping, and related activities from state, local, and private organizations;
  - b. contracting with a professional agency to conduct the natural resources inventory;
  - c. gathering state and regional planning sources GIS (Geographic Information Systems) data; and
  - d. integrating currently available data with newly gathered information.
2. Planning and Conservation Commissions will incorporate information from the natural resources inventory into the next cycle of the Town Plan.
3. Conservation Commission will increase resident and landowner access to information about land management and conservation, using print and digital media, community workshops, and other means.
4. Conservation Commission will create a Conservation Commission section on the Town website with digital maps and a database of the inventory, develop print materials for distribution, and establish a reference library that includes information on conservation, land management, invasive species, and related topics.
5. The Selectboard and the Planning and Conservations Commissions will communicate with State, regional, and other organizations to increase citizen participation in training, mapping, and information sharing through print and digital means.

## **Earth and Mineral Resources**

Sand, gravel, and slate have all been extracted in Guilford at different times. Sand and gravel are required for year round maintenance of our roads. Mining and quarrying can threaten environmental integrity so the benefits of extraction need to be balanced with attention to potential harm. Deposits of natural resources do not recognize town and property boundaries so management of some resources may require communication and coordination among several landowners, towns, or the region as a whole. Although there are identifiable sand, gravel and slate deposits in Guilford, there is currently only limited commercial extraction of these and other earth resources within the Town's boundaries. Excavation and extraction of these resources should be carried out in a way that doesn't

unduly impact neighbors with loud noise, dust, water quality impairment, unusual hours of operation, or heavy truck and equipment traffic on Town roads. Mineral resource operations should be mindful of the need to leave adequate supplies of earth resources for future generations.

**POLICIES: Earth and Mineral Resources**

**It is the Town's policy to:**

1. Ensure that extraction of earth and mineral resources does not threaten our natural resources and that there is proper preservation and restoration of the ecological, social, and aesthetic qualities of the area.
2. Require that land with high potential for the extraction of earth and mineral resources not be developed in a manner that will prevent future extraction or processing of the resource.
3. Ensure that extraction operations do not have an adverse social impact resulting in hardship to neighboring property owners involving noise, dust, vibration, and hours of operation, nor shall it create an undue burden on municipal services or facilities.
4. Require that those who propose the extraction of earth and mineral resources assure site rehabilitation suitable for appropriate future uses and compatible with the surrounding countryside.
5. Require that the extraction of earth and mineral resources shall not interfere with, or have undue negative impact on, surface waters or groundwater, air quality (dust), significant natural areas including important forest and agricultural lands, special community resources (historic sites, recreation and scenic areas), nor shall it create undue levels of noise.
6. Ensure that extraction sites manage truck traffic without creating unsafe, noisy, or dusty conditions for neighboring landowners.
7. Require that any operator of an earth resources extraction operation meet strict health, safety and environmental performance standards in conformance with Act 250 criteria or other relevant regulations.
8. Require that heavy trucking and heavy equipment traffic to and from extraction sites within and outside of Town boundaries obey weight and load limits on all Town bridges and roads AND that drivers obey speed limits.
9. Require that the Town use local sources of sand and gravel for Town construction project whenever to do so is cost effective and consistent with the Earth and Mineral Resources policies set forth in this Town Plan.

**ACTIONS: Earth and Mineral Resources**

1. Planning and Conservation Commissions will update our knowledge of Guilford's mineral resources by creating and maintaining an inventory using data obtained from the Agency of Natural Resources and other informational sources to identify, locate, update, and map deposits of important earth and mineral resources.
2. Participate in the permit review of new mineral resource extractions by State agencies

and other parties. (Act 250 provides for Selectboard and Planning Commission participation.)

3. The Selectboard and Planning Commission will determine permissible noise levels and adopt a Noise Ordinance.
4. The Selectboard will determine permissible traffic on Town roads serving any mineral extraction.

### **Wildlife and Natural Community Resources**

As citizens of Guilford we are fortunate to share the woods and fields with an abundance and diversity of wildlife and plants. The combination of large areas of forestland, open fields and large tracts of undeveloped land in Guilford provide excellent habitat for, amongst many others, deer, bear, wild turkeys, warblers, occasional moose, ginseng, trilliums, cohosh and lady's slippers in our woods, great blue herons and kingfishers in our wetlands, and snakes, woodcocks and songbirds in our fields. We embrace our responsibility to conserve and enhance our region's biodiversity by supporting and creating healthy habitat for our wild neighbors.

A comprehensive natural communities survey of Guilford has never been completed. As a result, there is relatively little natural resources inventory data available on the presence of rare, threatened, and endangered species and significant natural communities. Surveys that have been completed tend to have been performed on State lands, and therefore offer the most comprehensive data available. The absence of an occurrence record does not mean that there are no occurrences of rare or significant species or communities at any given location.

The Vermont Fish and Wildlife Department maintains the State's Natural Heritage Inventory, which is a database of rare, threatened, and endangered plant and animal species, and significant natural communities. In Guilford, the inventory identifies seven significant natural communities (See Appendix, item 8. p. 89). The most significant of these include three occurrences ranked as rare in the state (a river cobble shore, a sugar maple-ostrich fern riverine floodplain forest, and a rich fen), and one occurrence ranked as uncommon (dry oak-hickory-hophornbeam forest).

The Town also has six known occurrences of rare plant species. Additionally, four occurrences of animal species exist; one of which is state endangered, a second is state threatened, and the remaining two occurrences are noted as rare. Finally, the inventory also contains information on uncommon species and other features, including poorly documented rare species, which include nine records of plants, animals, and natural communities in Guilford (See Appendix, item 8. p. 89 and Natural Resources Map, p.86.)

### **Deer Wintering Areas**

Deer wintering areas, commonly referred to as deer yards, are defined and delineated by the Vermont Department of Fish and Wildlife. These areas are so designated because of their vegetation, slope, and other factors that shelter the deer from the harsh winter. They generally consist of areas where coniferous forests dominate. Equally important are corridors linking them together and to other undeveloped areas in order to facilitate the deer's annual migration from summer to winter habitats. A community's deer wintering areas may serve a deer population from several miles around. In addition to deer, nearly half of Vermont's vertebrate wildlife species rely on coniferous forests for at least part of their life cycle. It is important to note that deer wintering areas are often located on the "edge" between core habitat areas and areas with more densely populated human settlements, putting them at greater risk of negative impact from development.

### **Bear Habitat**

Eastern Black Bears require large unbroken forest lands and a diversity of seasonally-changing ecosystems for their survival. During the springtime, wetlands are among the first habitats to green up and provide critical forage when other food is scarce. Streams, rivers and other water bodies also are important. As the summer progresses, early successional ecosystems provide berries and other forage. In preparation for hibernation, bears move into woodlands, particularly oak and beech stands, to feed on nuts. Each habitat is important to bear survival, as well as corridors between them for accessing each ecosystem. Habitat fragmentation restricts bear movements, reduces food supplies, and increases chances for collisions with automobiles and contact with humans, which can lead to problems for bears in particular. Fragmentation of bear habitat should be minimized and travel corridors should be protected.

### **Fisheries and Aquatic Organism Habitat**

The Vermont Agency of Natural Resources 2014 *Tactical Basin Plan* (See Appendix, item 9. p. 89) reports twenty-seven species of fish occurring in suitable habitats within Basin 12, which includes surface waters in Guilford. Of this number nearly half are classified as sport fishes, providing anglers with recreational fishing opportunities.

A Fisheries Assessment Summary, compiled in 2012 by Vermont Fish & Wildlife and included in Appendix C of the *Tactical Basin Plan*, lists the following species in Guilford's major surface waters:

- Green River: wild brook and brown trout, stocked rainbow trout, and stocked Atlantic salmon fry: (by the Massachusetts Department of Fish & Wildlife as part of the Connecticut River Basin salmon restoration project)
- Hinesburg Brook: wild brook trout

Roaring Brook: wild brook trout, stocked Atlantic salmon fry

Weatherhead Hollow Pond: largemouth bass, pumpkinseed, yellow perch, American eel.

### **Wildlife Corridors**

Wildlife Corridors consist of connecting habitat land that links large patches of habitat within a landscape, allowing the movement, migration, and dispersal of animals and plants. Corridors are not always linear as the term implies. Riparian habitat along streams and rivers, strips of forest cover between developed areas, and even hedgerows and fencerows all represent potential connecting habitat. Corridors between large patches of habitat help ensure the ultimate viability of local wildlife populations. Wildlife corridors create a network of habitat connectivity, linking together both large and small patches of land, in both highly fragmented and highly connected landscapes.

### **Significant Natural Areas**

Significant Natural Areas are areas that, due to their uniqueness, vulnerability, irreplaceability, and/or important ecological function, necessitate special protection. Such areas include floodplains, riparian areas, wetlands, vernal pools, high elevations, steep slopes, important habitat blocks, significant natural communities, and habitats of rare, threatened and endangered plant and animal species. These special areas also include significant scenic landscapes and views, important archaeological sites, and historic structures and sites.

According to the Natural Heritage Inventory (See Appendix, item 8. p. 89), the most significant natural communities already identified include three occurrences ranked as rare in the state (a river cobble shore, a sugar maple-ostrich fern riverine floodplain forest, and a rich fen), and one occurrence ranked as uncommon (dry oak-hickory-hophornbeam forest). One goal of the proposed Natural Resources Inventory is to identify other potentially significant areas.

### **POLICIES: Wildlife and Natural Community Resources**

#### **It is the Town's policy to:**

1. Increase our knowledge of the Town's natural communities, rare, threatened and endangered species, significant natural communities, ecosystem characteristics, and ecological services to serve as a foundation for planning development, conservation efforts, and responses to natural disasters. Completion of a professionally-conducted Natural Resources Inventory will enable greater understanding of what we have, how resources impact and interact with each other, and how our ecosystems may respond to various pressures so that we can direct efforts to protect these resources or adapt to

changing resources in the future.

2. Protect the habitats of native biota, particularly rare, threatened, endangered, significant natural communities, and economically significant species from development and other negative ecological impact.
3. Protect and enhance core habitat, wildlife corridors, deer wintering areas, bear habitat, aquatic organism habitat and other important habitat areas.
4. Purchase or accept rights to properties that need protection and/or would be of benefit to the Town; encourage and support the purchase or lease of private property for public use; and support a mechanism, such as Guilford Preservation, Inc., whereby these transactions are possible.

### **ACTIONS: Wildlife and Natural Community Resources**

1. Planning and Conservation Commissions to incorporate information from the natural resources inventory into the next cycle of the Town Plan.
2. Conservation Commission to increase resident and landowner access to information about land management and conservation, using print and digital media, community workshops, and other means.
3. Conservation Commission to create a Conservation Commission section on the Town website with digital maps and a database of the inventory, develop print materials for distribution, and establish a reference library that includes information on conservation, land management, invasive species, and related topics.

### **Climate and Air Resources**

Guilford's air quality is generally good because of low population density and lack of heavy traffic and industry. Local threats to air quality include emissions from the combustion of fossil fuels, wood, vehicular exhaust, poor waste management, and improper disposal of toxic substances. Pollutants from distant sources, including acid in rain, mist, and snow, also affect air quality. An accident at the Vermont Yankee nuclear power plant has the potential to produce large amounts of atmospheric radiation.

Two primary sources of local air pollution include carbon-based combustion heating systems (particularly woodstoves) and automobiles. Newer wood stoves are now mandated by the EPA to contain pollution control equipment that significantly reduces particulate emissions. Replacing older wood stoves and furnaces will contribute to better air quality over time. Automobiles are a second local source of air pollution. Strategies such as reducing driving miles, cleaner burning engines, carpooling/ride sharing, and using alternative-fuel vehicles all would reduce automobile pollution. Increasing local employment opportunities may also reduce the need to commute.

## **POLICIES: Climate and Air Resources**

### **It is the Town's policy to:**

1. Ensure Guilford's good air quality by requiring that all activities meet state and federal air quality standards.
2. Discourage activities that degrade air quality in any part of the Town.
3. Encourage energy efficiency upgrades and the use of the cleanest burning technologies for all fossil fuel and wood combustion systems.

### **ACTIONS: Climate and Air Resources**

1. Participate in programs that monitor Vermont Yankee emissions and waste storage. (SB)
2. Create (or re-engage) a Guilford Energy Commission to distribute information and resources to residents about their energy consumption, their carbon footprint, and ways to ameliorate negative impact through energy conservation, energy efficiency and new technologies. (SB)

## **Water Resources**

Guilford contains many exemplary rivers, streams, wetlands, and ponds. Guilford's surface waters include the Green River, Broad Brook, and Fall River and their tributaries; two major ponds, Weatherhead Hollow Pond and Sweet Pond, both man-made; and many smaller ponds, wetlands, and vernal pools. (See Water Resources Map, p. 87).

These waterbodies are ecologically important for storing and transporting water through the watershed and moderating the impacts of flooding. They provide important habitat for aquatic organisms and wildlife, including food, shelter, and passageways. Guilford's water bodies also provide recreational and scenic attractions for humans. For all of these reasons, protecting surface water quality is very important to the future of the Town.

Guilford residents and businesses rely primarily on individual groundwater supplies for potable water; therefore, protecting groundwater quality is critical to the future wellbeing of the Town and its residents.

Guilford's water resources can be preserved and/or improved through implementation of low impact development and green stormwater infrastructure. Low impact development (LID) employs land planning and engineering design to maintain a site's pre-development ecological and hydrologic function through the protection, enhancement, or mimicry of natural processes. Using a wide variety of methods such as maintaining tree cover on steep slopes and riparian buffers, minimizing impervious surfaces, and protecting wetlands from negative impact, LID is considered a non-structural practice used predominantly to guide

new development. At its core, LID focuses on minimizing the impacts of development. There are eight main components of LID: encourage conservation development, minimize soil compactions, minimize total disturbance, protect natural flow patterns, protect riparian buffers, protect sensitive areas, reduce impervious surfaces, and create disconnections between stormwater sources and conventional infrastructure systems or waterways.

In built-up areas where there is a relatively dense concentration of impervious surfaces (rooftops, roads, and parking lots) due to site constraints or existing infrastructure, the impacts of development on a site cannot be fully mitigated. In these situations, Green Stormwater Infrastructure (GSI) may be employed. GSI includes systems and practices that restore and maintain natural hydrologic processes (including infiltration, evapotranspiration, storage, and reuse) in order to preserve water quality and reduce runoff volume. Examples of GSI include rain gardens, bioswales, and retention basins. This is in direct contrast to conventional stormwater infrastructure methods, which aim to direct water away from a site as quickly as possible. Using low impact development and green stormwater infrastructure to retain water on the site, flooding is mitigated, water quality is improved, the natural hydrologic patterns are restored, and habitat is enhanced.

### **Water Quality**

The water quality of Guilford's major surface waters is monitored by the Agency of Natural Resources (ANR). The Vermont Lake Scorecard ([http://www.vtwaterquality.org/lakes/htm/lp\\_lakescorecard.htm](http://www.vtwaterquality.org/lakes/htm/lp_lakescorecard.htm)), developed to convey data analyzed through these monitoring efforts, currently rates Weatherhead Hollow Pond and Sweet Pond as *Good* in terms of water quality and shoreline conditions and *Fair* for acid deposition from rain, snow, fog or dust polluted by acid in the atmosphere. The Green River has consistently been rated *Excellent* (with the exception of 2011 following tropical storm Irene). Broad Brook has also been rated *Excellent*, but sediment has been noted as a water quality problem in some areas, along with a lack of riparian vegetation. The main stem of the Fall River runs south parallel to I-91 and is joined below the VT/MA border by Couch Brook, which drains Sweet Pond and Weatherhead Hollow Pond. Initial bio-monitoring was done in 2013 with results pending. ANR has noted that the Fall River is a very important Rare, Threatened, and Endangered Species corridor and has set protection and enhancement of wildlife crossing access across I-91 as an objective in the *Tactical Basin Plan*.

ANR proposed the Green River and its tributaries for reclassification to Class A(1) status in the 2014 *Tactical Basin Plan* (9), with the goal of protecting and maintaining these waters in their natural condition. In addition, ANR suggested research into National Wild & Scenic

Rivers designation and/or Vermont's Outstanding Resource Waters designation for the Green River, both of which serve to protect rivers with exceptional natural, cultural and recreational values.

### **Lakes and Ponds**

Effective July 1, 2014, the Vermont Legislature passed the **Shoreland Protection Act** ([http://www.watershedmanagement.vt.gov/lakes/docs/shoreland/lp\\_ACT172\\_Shoreland%20Protection%20Law.pdf](http://www.watershedmanagement.vt.gov/lakes/docs/shoreland/lp_ACT172_Shoreland%20Protection%20Law.pdf); Chapter 49A of Title 10, §1441 *et seq.*), which regulates shoreland development within 250 feet of a lake's mean water level for all lakes greater than 10 acres in size (10). The intent of the Act is to prevent degradation of water quality in lakes, preserve habitat and natural stability of shorelines, and maintain the economic benefits of lakes and their shorelands. The Act seeks to balance good shoreland management and shoreland development. In Guilford, this legislation applies to Weatherhead Hollow Pond.

According to WRC's *Undeveloped Waters of Southeastern Vermont* (See Appendix, item 19 p. 89) Weatherhead Hollow Pond is 39% undeveloped and 72% conserved. Sweet Pond is listed as 69% undeveloped and 100% conserved in the same study. Sweet Pond is currently drained due to structural problems with the dam. The Vermont Department of Forests, Parks and Recreation is evaluating the future of the dam and pond with the intention of re-building the dam, though funds have not yet been identified for the purpose. Water quality and habitat issues associated with the reconstruction will be evaluated by the Vermont Department of Environmental Conservation during this process.

### **Vernal Pools**

Vernal pools are ephemeral bodies of water that generally have no outlet and dry up in the summer months. They are important sources of aquatic animals that do not exist in larger bodies of water. Many amphibians, including salamanders, such as the yellow-spotted, blue-spotted, Jefferson, and eastern newt, breed successfully in vernal pools as no fish are present. Invertebrates, including fairy shrimp and insects; fingernail clams; and wet tolerant plants are found in or near vernal pools. Many of Guilford's vernal pools have been identified and mapped, but completing the Natural Resources Inventory will add to our understanding of where these vital resources are located.

### **Wetlands**

Wetlands are intermediate habitats between upland and aquatic ecosystems. Wetlands serve a range of functions that are important to plant and animal species, as well as the health, safety, and welfare of people. They provide fish and wildlife habitat, flood and erosion protection, nutrient and pollution filtration, groundwater recharge, aesthetic diversity, and sites for educational and recreational activities. Wetland communities

include vegetated, shallow-water margins or lakes and ponds, seasonally flooded borders of rivers and streams, and a diversity of settings across the landscape, including basins, hillside seeps, and wet flats.

Similar to our vernal pools, many of Guilford's wetlands have been identified and mapped, but completing the Natural Resources Inventory will add to our understanding of where these vital resources are located. At least one wetland, a rich fen, has been identified as a rare natural community.

### **Groundwater**

Groundwater is water that has infiltrated the soil through sand, gravel, or rock. Except for the Village of Algiers, which is served by a municipal wastewater collection system, as well as a municipal water supply system, groundwater is the source of potable water for most of Guilford's homes.

Vermont's Act 199, passed in 2008, declares groundwater to be a public trust resource in order to protect the water we all depend on. The Agency of Natural Resources is entrusted with the stewardship of our groundwater, but private citizens and local officials also have roles to play to manage local groundwater resources (See Appendix, item 17, p. 89).

Groundwater is a vital resource in Guilford, valuable for maintaining potable water supplies for future generations and for its relationship to surface waters, including the ecological functions of wetland and adequate stream flow.

### **River Corridors and Flood Resiliency**

In extreme weather, rivers and streams are unpredictable and may destroy structures, roads, and streambeds. Tropical Storm Irene in August, 2011 tracked directly through the Green River watershed, causing major damage in Vermont and Massachusetts. Over 7 inches of rain fell in the headwaters of the Green River watershed. Roads and bridges were especially hard hit by the flooding so that damage to the transportation network slowed recovery efforts and severed access to dozens of homes. As a result of the impacts from this flood and the increasing severity of rainfall and flood events in the last decade, flooding and erosion hazards are a top concern for residents within the Green River watershed.

In 2012 the Windham Regional Commission (WRC) and the Vermont Department of Environmental Conservation (VTDEC) targeted the Green River in southeastern Vermont for assessment of fluvial geomorphic conditions. Fitzgerald Environmental Associates was hired to do a Stream Geomorphic Assessment (SGA) to help the towns of Guilford and Halifax better understand existing flood vulnerabilities and plan for future improvements with flood risks in mind. 17.2 river miles in Halifax and Guilford were assessed in 2013. 8.6 river miles were then selected for a field-based study in 2014.

The *Green River Corridor Plan* (See Appendix, item 1, p. 89) was then developed. This plan provides critical information for emergency planning, road and bridge management, and conservation of land and river as well as an assessment of current river conditions. It identifies 23 projects to promote the restoration or protection of channel stability and aquatic habitat. 13 of these projects are in Guilford, five of which have been identified as priority projects. These are described in detail and include berm removal, buffer plantings, and floodplain protection.

### **GOALS: Water Resources**

1. Develop an informed understanding of Guilford's water resources using data from maps and research carried out by Vermont Agency of Natural Resources Department of Environmental Conservation, Vermont Department of Fish & Wildlife, and Windham Regional Commission to ensure the health and safety of our environment and our residents, minimize economic losses during floods, protect ground and surface water quality, facilitate emergency services, and protect our river corridors.
2. Use the Natural Resources Inventory to assess the importance of Guilford's water resources to associated wildlife and thus assist in protection of these resources.
3. Encourage the integration of low-impact development principles and green stormwater infrastructure practices for new development projects and reconstruction of existing development in order to protect water quality and mitigate flooding.
4. Implement strategies identified in the 2015 *Local Hazard Mitigation Plan* (See Appendix, item 18, p. 89) to reduce or eliminate risk to people and property from natural and human-caused hazards and their effects.
5. Develop appropriate flood hazard area regulations to protect lands within identified floodplains and flood storage and fluvial erosion hazard areas in Guilford's watersheds and encourage landowners to install buffers and other tools that protect shoreline and/or riparian areas.
6. Support State and local efforts to rebuild the Sweet Pond dam and restore the pond as this resource is one of the few recreational waters in southeastern Vermont.

### **POLICIES: Water Resources**

#### **It is the Town's policy to:**

1. Protect our rivers, streams, ponds, wetlands and vernal pools from contamination, including runoff from fertilizer, animal waste, septic systems, junkyards, and other pollutants and toxins.
2. Encourage the preservation of the ecological and aesthetic value of our streams, ponds and wetlands.
3. Limit development within the surface waters or buffer zones of the following areas to protect our waters and watersheds:
  - a. Headwaters of watersheds characterized by steep slopes and shallow soils.

- b. Drainage areas of pristine or upland streams. Within these areas special attention should be given to preservation of flora and fauna on stream banks preventing soil erosion and siltation of streams, and preventing pollution of ground and surface waters.
  - c. Floodplains and river corridors.
  - d. Wetlands.
4. Support the State's setback requirements for bodies of water larger than ten acres.
  5. Implement the guidelines in *Vermont Standard River Management Principles and Practices*( See Appendix, item 6, p. 89) when maintaining or replacing roads, bridges, and structures in flood hazard areas.
  6. Protect Guilford's groundwater from contamination from blasting, injections and other adverse impacts associated with the commercial development of groundwater resources.
  7. Ensure safe wastewater disposal: the Town of Guilford will permit development to occur where soil conditions and topography will not cause erosion or contamination of ground or surface water; will continue to update and enforce health regulations (Wastewater and Potable Water Supply Rule) to ensure adequate sewage disposal encompassing traditional and proven new technologies; and will report violations of State septic regulations when they occur.

**ACTIONS: Water Resources**

1. The Selectboard and Planning Commission will update Guilford's Flood Hazard Area Bylaws to include the Statewide River Corridor Map and the river corridor protection guidelines developed by the Agency of Natural Resources in *Flood Hazard Area and River Corridor Protection Procedures* (See Appendix, item p. 89)
2. The Selectboard, Planning and Conservation Commissions, and WRC will review the *Green River Corridor Plan* (See Appendix, item 1, p. 89) and work with landowners and Town officials to build support, secure funding and build partnerships to implement the restoration and protection projects outlined in this plan.
3. The Selectboard, Planning and Conservation Commissions, and WRC will review the *Tactical Basin Plan* and work with the partners described in this plan to implement restoration and protection projects outlined in this plan for the Green River, Broad Brook, and Fall River.
4. The Selectboard and Planning and Conservation Commissions will request reclassification of the Green River to A1 status through the Agency of Natural Resources.
5. The Conservation Commission will establish a repository of information and resources on low-impact development principles and green stormwater infrastructure in order to protect water quality, reduce erosion and flooding, and improve the function of ecological services.
6. The Conservation Commission will monitor invasive plant growth along waterways and develop plans to control them.

7. The Planning Commission will investigate the feasibility of undertaking groundwater mapping in Guilford.
8. The Selectboard and Planning Commission will develop and adopt regulations for large groundwater extraction.
9. The Selectboard and Town Health Officer will coordinate with the State to monitor groundwater before and after blasting for mining, road, or home building, and when multiple wells are being drilled in close proximity.
10. The Selectboard and Conservation Commission will work with State officials to enact stream setback requirements.
11. The Selectboard and the Planning and Conservation Commissions will continue to work with State officials about the importance and status of the Sweet Pond Dam project and to support Guilford's Sweet Pond Steering Committee's activities.
12. The Conservation Commission will update the documentation of the recreational uses of the Town's streams and ponds (See Appendix, item2,. p. 89)

### **Forest and Agricultural Resources**

Throughout more than 250 years as a town, Guilford has kept its rural landscape, characterized by small, scattered settlements set among forests and fields. Consistent with statewide patterns of reforestation, Guilford is now heavily wooded as compared to the open landscape of 150 years ago, when field adjoined field in nearly all parts of Town. We are fortunate to have several long-standing, traditionally diversified (maple, hay, firewood) dairy and beef based family farms operating in Guilford, as well as a growing number of newer, diversified farms focusing on vegetable crops. The hard work and land stewardship of these farmers helps to preserve our town's agricultural heritage and contributes to our community self sufficiency and sustainability with respect to food and forest products into the future.

Forests and farmlands are particularly important to Guilford citizens, especially to the many residents who earn their livelihoods from these lands. Preserving the balance between Guilford's rural character and residential development is, and will continue to be, a challenge that must be addressed in order to maintain the viability of our agricultural lands and forests. Careful management of these lands is important to ensure that Guilford maintains its rural landscape, the health of its forests and agricultural lands, and the economic viability of its natural resources.

### **Forest Threats and Strategies for Mitigation**

Forests provide significant benefits to the health and integrity of our society and environment by providing ecological services such as flood mitigation and carbon sequestration, creating habitat critical to the survival of many plant and animal species,

improving air and water quality, and providing natural resources and recreational opportunities. However, forests are especially vulnerable to the significant changes that threaten our natural resources. Significant threats to our forests include fragmentation, pollution (including acid deposition), climate change, invasive species, and deer overbrowse.

While historical evidence shows that great changes have occurred in the region for well over 100 years, the changes to today's forests, such as fragmentation, climate change and the spread of invasive species, are accelerating changes in forest composition and health. These changes have significant and long-term, possibly irreversible, implications. Guilford's forests, including maple-dominated communities, are threatened by climate change and, in some places, overbrowsing by deer.

Large, continuous tracts of woodland are needed to support natural community biodiversity and the economic viability of the working forests. Guilford is experiencing fragmentation, from parcelization as well as development. Such fragmentation can have significant impacts ecologically, socially, and economically and thus needs to be addressed. Parcelization, the subdivision of forestlands into smaller lots, typically results in a greater number of landowners. Parcelization in Guilford is largely driven by new residential development, often by citizens seeking to experience Vermont's rural character. Unfortunately, as rural residential development continues to grow, it undermines the quality of the rural landscape. This fragmentation has been exacerbated by the development of large development envelopes (the area of land impacted by structures and infrastructure, including driveways). For example, between 2001 and 2008, 92 structures were built in Guilford, 54 (59%) of which were more than 300 feet from a public road, disturbing habitat blocks. Parcelization and new development tends to negatively impact wildlife habitat, plant and animal species, water quality, and the land's ability to provide ecological services. Further, this fragmentation tends to degrade the economic viability of forestlands as well as the ability of landowners to practice sound land management. Factors driving parcelization includes increasing property taxes, changing demographics, and a lack of estate planning that considers long-term forest conditions.

Climate change in the northeast is causing higher year-round temperatures. The result is that forest composition is changing as the habitat ranges of plants and animals migrate northward. Locally, it is expected that that this shift in forest composition will result in maple and birch trees giving way to more southern species of trees. In addition, it is expected that the northeast will experience greater extremes in weather patterns with rainstorms that increase in frequency and severity as well as longer periods of drought.

Among the greatest impacts of climate change to forests are heat stress and reduced soil moisture caused by increased temperatures and more frequent and severe droughts. Forest health may suffer as increased stress such as heat and drought make trees more susceptible to disease and pests (See Appendix, item4, p. 89).

We encourage thoughtful forestry practices on woodlands and encourage landowners to have Land Management Plans developed to ensure comprehensive and sound management practices on their lands. Indiscriminate forestry practices are a threat to the integrity and health of our forest and water resources, as well as historic resources such as stone walls and cellar holes, and must be avoided.

There are numerous strategies that address threats for forest health. Fragmentation can be discouraged by improving public awareness about forest threats, increasing participation in conservation easement and Use Value Appraisal programs, and encouraging low-impact development practices and smaller development envelopes. Development envelopes can be reduced by increasing the compactness of disturbances and minimizing the size of building footprints, driveway lengths, lawn and cleared areas, and other infrastructure.

Several options are available to Guilford residents and the community for encouraging the conservation of lands, including conservation easement programs, deed restrictions, the acquisition of Town Forests, and the Use Value Appraisal Program. The Vermont Land Trust, The Nature Conservancy, and other conservation organizations protect forest and agricultural land from development through a range of programs such as conservation easements and land acquisition. Guilford currently has 1,107 acres (4.4% of the town) under conservation easements, which are preserved in perpetuity. Landowners may also have deed restrictions developed to limit future uses on lands. Towns may acquire town forest lands, which can provide great opportunities to improve the quality of life for residents through public education, natural resource extraction, and recreation.

The State's Use Value Appraisal (UVA) Program, also known as Current Use, provides tax benefits to the landowner on eligible lands that are practicing forestry and agriculture. Eligible forestland parcels must be at least 25 acres in size and must be actively managed under a forest management plan. Within this program, the State reimburses the town for tax liability loss resulting in no loss of revenue to the town. In exchange for the tax benefits, lands enrolled in the program have a lien against development for the period in which the property is enrolled. As of 2014, there were a total of 129 parcels enrolled in the UVA program in Guilford with 10,801 acres enrolled as working forest and 1,641 acres enrolled as working agricultural land. These acres represent approximately 51% of our town's land base. Large areas of contiguous enrollment are located in the central and southwest

portions of town. There are nearly 60 parcels greater than 50 acres in size that were not enrolled in the UVA program (as of 2013), but which may qualify.

### **Forest Productivity**

The Connecticut River Valley and eastern portions of the Deerfield watershed are unusually productive forest lands compared to most of Vermont, including much of the Windham Region. In Guilford, there are roughly a dozen such blocks with significant acreage, as well as several additional blocks shared with adjacent towns. All of these habitat blocks, with the exception of two, rank in the top 10% of blocks in the state for forest productivity. This data is based on a statewide forest productivity analysis completed by Jon Osborne, GIS Director for the Vermont Land Trust, which ranks habitat blocks (areas of contiguous forest and other natural habitats that are not fragmented by roads, development, or agriculture) over 500 acres. The analysis is based on (in order of importance) geology, elevation, hardness, landform, slope, and precipitation (See Appendix, item 12, p. 89)

### **Habitat Blocks**

Habitat blocks are areas of contiguous forest and other natural habitats that are not fragmented by roads, development, or agriculture. They are ranked for their biological and conservation value based on 11 biological and physical diversity factors. Habitat blocks have been mapped throughout the state for the Vermont Fish and Wildlife Department by the Vermont Land Trust. Guilford contains all or part of 28 different habitat blocks ranging from 20 acres to over seven square miles. The highest-ranked blocks in Guilford—those with the highest biological and physical diversity—include a block west of Green River Road between Hinesburg and Stage Roads (it extends into Halifax), and another block encompassing Wilkens Hill (the area between Carpenter Hill and Stage Roads). Other high ranking habitat blocks include those surrounding East Mountain, Gallup and Amidon Pinnacles, Owls Head Mountain and Belden Hill, and the area bounded by Weatherhead Hollow, Sweet Pond, and Guilford Center Roads.

### **Agricultural Resources**

Agricultural lands are important for the livelihoods that they support, the locally grown food and forage they provide, and the iconic Vermont landscape they create. Agricultural land tends to be under considerable development pressure due to the ease with which it can be converted. Though agricultural lands can be especially prone to soil erosion, fertility loss, soil health degradation, and encroachment by invasive species, farmers in Vermont are required to employ best practices as mandated by the state, and our Guilford farmers work hard to exceed the bar set by these protocols.



## **Invasive Species**

Preserving native ecosystems under assault from invasive plants and insects is a concern that may require community-wide planning and frequent monitoring. Invasive plant growth can lead to loss of native flora and fauna. Japanese Knotweed is one particularly aggressive invasive species becoming increasingly prevalent in Guilford. Colonies of Japanese Knotweed can quickly overtake stream banks, empty lots, construction sites, and backyards. Knotweed rapidly outcompetes native vegetation, contributes to soil erosion, especially along stream banks, and has been known to grow through and damage infrastructure such as bridge abutments. In addition to knotweed, the Guilford Conservation Commission has focused on four additional plant species prevalent in Guilford in its educational workshops and control efforts – Asiatic bittersweet, Japanese barberry, buckthorn, and multiflora rose. Euonymus, or winged burning bush, is also prevalent and will be added to the list, along with others as they become a concern.

Three non-native insects that currently threaten Vermont's forests are the emerald ash borer, hemlock wooly adelgid and Asian longhorned beetle. The emerald ash borer has been shown to be devastating to ash tree populations. Although the emerald ash borer has not been identified in Guilford, its arrival is imminent. The hemlock wooly adelgid may also contribute to wide-scale mortality in hemlock trees. The adelgid has already been identified in Guilford, while the Asian longhorn beetle has not yet been detected in Town.

Future efforts to control invasive species should involve preventing new introductions through common pathways such as firewood, nursery stock, and other non-local products. While there are no official State regulations related to firewood used at private homes, the Vermont Department of Forests, Parks, and Recreation recommends that firewood not be transported more than fifty miles. Other important actions needed to address non-native species include working with partners to develop tools for detecting, identifying, evaluating, and managing invasive pests, and responding rapidly if infestations are detected. Resources available through the *Vermont Invasives* (See Appendix, item 16, p. 89) and the *Invasive Plant Atlas of New England* (See Appendix, item 3, p. 89) websites will continue to inform our understanding and management practices for invasives.

## **Recreation**

Guilford has numerous outdoor recreational opportunities that enhance the quality of life for residents and visitors. In total, there are 434 acres of State-owned public land, equal to 1.7% of the town. These public lands include Fort Dummer State Park in the northeastern corner of town, Sweet Pond State Park, in south-central Guilford, Roaring Brook Wildlife Management area to the east, and Weatherhead Hollow Pond, in the southeastern corner. The Guilford Fairgrounds and Guilford Recreation Club sites are maintained by

public/private associations. In addition, the Conservation Commission has identified trails, bicycle and horseback routes, snowmobile trails, and water recreation areas in its *Guilford's Recreational Resources* brochure (See Appendix, item 2, p. 89). Guilford depends on a combination of public lands and private lands open to the public to serve the recreation needs of its citizens.

### **POLICIES: Forest and Agricultural Resources**

#### **It is the Town's policy to:**

1. Support and encourage retention and, where it can be done sustainably, an increase in the production of forestry and agricultural products. Any action that decreases the productivity of agricultural or forest land should be discouraged.
2. Encourage proper management of agricultural and forest lands, through development and adherence to land management plans and sound land stewardship practices. Useful guidelines for best management practices include the *Voluntary Harvesting Guidelines for Landowners in Vermont* (See Appendix, item 14, p. 89), *Accepted Agricultural Practices Regulations* (See Appendix, item 5, p. 89), *Acceptable Management Practices for Maintaining Water Quality on Logging Jobs in Vermont* (See Appendix, item 13, p. 89), *The Vermont Standards and Specifications for Erosion Prevention and Sedimentation Control* (See Appendix, item 11, p. 89), and those required under the Current Use program.
3. Encourage the siting of new development so as to avoid fragmentation of forests, wildlife habitat, significant natural areas, and agricultural lands. Development projects should minimize their ecological and visual impact on open spaces, which are attractive to visitors and residents alike.
4. Identify and preserve important significant natural areas and forest ecosystems in an intact and healthy state through conservation and sound forestry practices for the benefit of all Guilford residents.
5. Increase public awareness of and access to information on land management, conservation, and related topics.
6. Support efforts to document, develop, and map recreational trails in Guilford.
7. Maintain, and where feasible increase, public rights-of-way on Class IV roads, legal trails and lands to enable public access to outdoor recreational opportunities.
8. Restrict the reclassification and upgrading of Class 4 roads and legal trails to public roads.
9. Require that new development has frontage on or access to town roads that are currently maintained for year-round use in order to minimize fragmentation, negative ecological impacts, and additional maintenance costs to the town.
10. Expand resident awareness of and response to invasive plants and insects and the consequent decline of biodiversity.
11. Adopt measures to control invasive plants along Town roads and within Town properties.
12. Consider purchasing or accepting rights to properties that need protection and/or

would benefit the Town and its residents as well as encouraging acquisition of private lands with public access through another mechanism, such as Guilford Preservation.

**ACTIONS: Forest and Agricultural Resources**

1. Conservation Commission to develop criteria for forest management modifications near important wildlife forest habitats in order to maintain tree diversity, old forest remnants, and natural communities.
2. Planning and Conservation Commissions to analyze the results of the natural resources inventory relating to the forests within Guilford and in the larger region, with the goal of preserving forests, woodlots, and wildlife, including the Andrew Weeks Memorial Forest.
3. Encourage Guilford citizens to participate in programs that preserve forests and farmlands including conservation easements, conservation deed restrictions, and the Current Use Program, each of which encourages the preservation of open space and good land management practices.
4. Conservation Commission to reach out to landowners that have not participated in a program to conserve their lands (either conservation easements or the UVA program) to increase awareness of the programs and encourage their enrollment.
5. Conservation Commission to educate the public and expand access to and use of communication tools related to the conservation and management of the Town's natural resources and lands through the Town website and reference library.  
Good resources include, but are not limited to:
  - a. Windham Regional Woodlands Association (formerly Woodland Owners' Association)
  - b. Vermont Coverts, which works in conjunction with other organizations to create "welcome package" for new landowners
  - c. Vermont Natural Resources Council, which provides community and municipal resources on land management and forest health.
6. Conservation Commission to communicate with State, regional, and other organizations to increase citizen participation in training, mapping, and information-sharing through print and digital means.
7. Conservation Commission to establish a repository of informational materials about invasive plants and insects for public use in a centralized location and coordinate with other conservation commissions in educating the public about invasive species and management techniques.
8. Selectboard and Conservation Commission to assist the Town in developing and executing plans for the treatment of the most significant sites of invasive plants along Town roads and properties:
  - a. Schedule meetings between the Conservation Commission, the Selectboard, the Road Commissioner, and other interested parties to discuss the challenges posed by the prevalence of invasive plants and best management practices for their control.

- b. Develop a plan to remove invasive plants on town property and roads or minimize the damage caused.
9. Selectboard, Conservation Commission, and the WRC to form a Guilford Trails Committee tasked with developing town trails and an accompanying trail map and guide.

## Energy: Vision, Goals, Discussion, Policies, Actions

### VISION

*Guilford residents will be informed about best practices for power generation and efficient use so that we use energy more efficiently and, over time, expand our development and use of locally produced renewable energy, which will collectively reduce our expenses and our carbon footprint.*

### GOALS and POLICIES

The overall goals are to encourage the efficient use and conservation of energy in all areas and the appropriate siting and development of appropriate community-scale renewable energy resources.

1. **It is the policy of the Town to** pursue energy-efficient practices in all town-owned buildings and installations, practices which promote energy conservation, the use of renewable energy, and a clean environment.
2. **It is the policy of the Town to** actively discourage energy consumption which depletes limited resources and/or produces harmful wastes.
3. **It is the policy of the Town to** reduce the Town's expenditures for heating and electricity through investment in renewable resources, to share lessons learned from these exercises with town residents, and encourage residents to take similar actions.

### DISCUSSION

Energy is as precious a resource as clean air and water. Its proper use can improve our living conditions. Its misuse can diminish, damage, or destroy our environment. Conserving energy improves the regional economy and residents' quality of life. It also reduces the consequences of our dependence on domestic and foreign supplies of gas and oil.

Many towns in our area are investigating or investing in solar or wind power to reduce, over time, their utility expenditures. Putney and Townshend have entered into net-metering projects of benefit to the Town and its residents. Dummerston is considering a similar investment. It is likely that the Town of Guilford and its residents, without making an up-front investment, can benefit in a similar manner. The model that is serving other towns involves a third party investor, an entity that purchases the system and benefits from the tax break. The Town then enters a power-purchase agreement (PPA) to buy the power at a reduced rate for x number of years. At the end of that agreement, the Town could buy the system at a reduced cost. Alternatively, the initial investor could give the system to the Town and realize an additional tax break on their end. This model removes the cost entry barrier to solar power and allows the Town to realize savings from the start. The PPA is frequently based on GMP rates; it will change over time, but will remain a certain percentage lower than the going GMP rate.

The Planning Commission supports residential and community-scale renewable energy installations but feels strongly that there should be no development in Town of utility-scale renewable energy projects without consideration by and approval of the Selectboard, Planning Commission, and community members. Large scale installations are not consistent with the nature and aspirations of Guilford, as reflected throughout this plan.

### **POLICIES and ACTIONS**

The Planning Commission recommends that the Town support the development and use of residential and community-scale renewable energy resources such as off-grid and net-metered wind and solar, biomass, micro-hydro (*see note below*), or geothermal at a scale that is cost-effective and sustainable. The intent is to enhance energy system capacity and security and promote cleaner, more resilient energy production.

1. **It is the policy of the Town to** explore options for photovoltaic (PV) installation to power Guilford's public buildings, particularly the model that involves a third party investor and no up-front costs to the town, other than the use of town land PRIOR to the anticipated elimination of relevant tax breaks.
2. Planning Commission to work with the Selectboard to develop policies which encourage energy conservation.
3. Promote education about energy audits, current best practices for energy production and home heating, and weatherization programs and encourage their use.
4. **It is the policy of the Town to** periodically conduct an energy audit of all public buildings.
5. The Energy Committee will encourage and support cross-sharing of information about and experiences with renewable and sustainable energy sources and practices and assist in the implementation of energy conservation or generation plans. For example:
  - a. Best practices for home heating, on site or locally-obtainable, renewable energy sources (e.g., water, solar, wood, wood pellets, biomass, manure, wind, and geothermal sources, or micro-hydro-electric generators) while understanding any safety hazards or environmental impacts of methods selected.
  - b. New public development located near Town services (particularly the school) to save energy.
  - c. Home businesses, which reduce fuel consumption used in commuting and, where practical, promotion and facilitation of car-pooling and public transportation.
  - d. Energy audits for homes, businesses, and public buildings.
  - e. Use of new technologies, such as non-catalytic combustion in wood heating and micro-hydroelectric.

**Micro Hydroelectric**

On May 14, 2012, Act 165 became effective. The main goal of the Act was to expedite development of small and micro hydroelectric projects, and the anticipated pathway for achieving that goal was the creation of a memorandum of understanding (MOU) between the State and the Federal Energy Regulatory Commission (FERC) to expedite procedures for granting approval to these types of projects -- ***from a 1/2014 report to the Vermont General Assembly.***

## EDUCATION: Vision, Goals, Discussion, Policies, Actions

### VISION

*Guilford provides a myriad of educational opportunities, both traditional and alternative, that build skills and strengthen learners' connection with and contribution to their immediate community and beyond.*

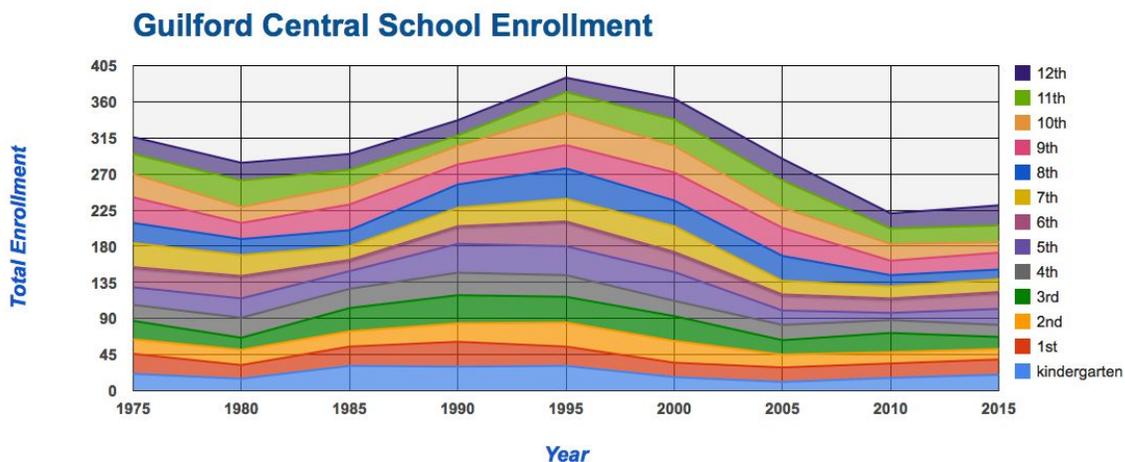
The Guilford Central School Vision and Mission Statements read as follows:

**“Vision:** Our students will become global citizens who are educated, inspired, confident, courageous, impassioned and connected to their communities.

**Mission:** The mission of the Guilford Central School is to provide a safe, supportive environment where children grow academically, socially, and emotionally and are challenged to reach their potential as local and global community members.”

### GOALS and POLICIES

1. **It is the Town policy to** support Guilford Central School efforts to continue place-based learning initiatives.
2. Ensure that Guilford’s K-6 students are educated in Guilford.
3. **It is the Town policy to** encourage services that are currently lacking in Guilford, i.e., early education and afterschool programming.
4. Explore options for more adult learning opportunities and create a network for Guilford residents to share their diverse skill sets with fellow residents.
5. **It is the Town policy to** educate students about the importance of our environment and help provide learning experiences related to responsible environmental stewardship.



## DISCUSSION

The Planning Commission learned that the GCS vision and mission statements will evolve as the school and community becomes more engaged in SWIFT (The School-Wide Integrated Framework for Transformation), a program that has just recently been adopted in Guilford. SWIFT is a national K-8 program that provides academic and behavioral support to promote the learning and academic achievement of all students, including students with disabilities and those with the most extensive needs.

In the 2014-15 academic year, GCS reported a pre K-8 population of 166 students to the State. In addition to these students, many of Guilford's youth attend private day and boarding schools and some are homeschooled. According to [www.City-data.com](http://www.City-data.com) a data website that rates schools (using weighted 2010 test average as compared to other schools in Vermont) from 0 (worst) to 100 (best) Guilford is rated at **64**. Another website, [www.MOVOTO.com](http://www.MOVOTO.com) provides the following statistics (see below chart) ranking all 296 primary schools in the state using the Movoto School Rank, Standing is calculated from each school's most recent performance in State-defined exams. The lower the rank, the better.

Past year performance	Rank	Percentile
2011	B	31st
2010	B	35th
2009	B	23rd
2008	A	12th
2007	A	10th

Other Guilford data from 2010 is at <http://www.city-data.com/city/Guilford-Vermont.html>

Guilford Central School has instituted strong place-based learning initiatives that connect students with their community and their town's history. This type of learning creates an intimate sense of belonging and familiarity with one's immediate environment. For example, students spending time in the Andrew Weeks Forest as part of their curriculum have the chance to observe native plant species and wildlife and explore town history in the form of the Mineral Spring foundation. Educational experiences are more formative and more likely to naturally lead to further education when they are rooted in tangible and sensory fields as compared to the abstract.

The opportunities for education in Guilford are myriad and should be pursued with fervor to continue to grow a resilient and well-informed citizenry. Learning is a lifelong endeavor and Guilford has the opportunity to round out its educational offerings commensurate with the broad knowledge base that its residents possess. An outdoor classroom in the Guilford Center Village would provide a strong foundation and gathering place that teachers could use to explore learning opportunities present in the Village (Library, Museum, Grange, Meeting House, Spring House, and Brick School House). The creation of a space like this, in tandem with using the Broad Brook Grange as a community kitchen/indoor classroom, would fill a longtime gap in Guilford's education system.

Guilford's adult residents possess an extraordinary variety of skills and knowledge that they could share with each other. Indeed, this transfer of knowledge is already happening in small pockets, but a purposeful network and series of workshops committed to increased activity in this field would facilitate continuing education. Imagine a workshop at the Grange where participants return home with a gallon of fermenting sauerkraut from locally grown cabbage or a winter pruning demonstration in the outdoor classroom where folks stay warm with apple cider they pressed in the fall.

The move of Guilford's 7th and 8th graders to BAMS opened up space in the Guilford Central School. During the Vermont Council on Rural Development's series of visits to our town, the issue of early child care/education and afterschool programming frequently came up. There are opportunities to work with the school and its existing infrastructure to explore options for meeting these needs.

As work on this 2015-2020 Town Plan is being completed, there are two critical unknowns about the direction that education of Guilford's children might take and that will significantly impact the vision, goals, and actions expressed in March, 2015. They are: the outcome of budget negotiations between Guilford and BAMS and the outcome of Vermont State legislature work on how to reduce the cost of education to Vermont taxpayers. Thus, this part of the Town Plan will likely need to be modified over the years.

## **ACTIONS**

1. Assess the needs of parents/students as they pertain to early childcare/after-school programs and determine how likely they are to use these services if made available in Guilford.
2. Discuss options with GCS administration surrounding the use of their facilities for early childcare or after-school options or look into other buildings (Grange, church)
3. Form a volunteer committee charged with
  - a. Meeting with GCS faculty to further understand their needs relative to their curriculum.
  - b. Creating an outdoor learning and green gathering space in the Guilford Center Village in collaboration with the State-supported Vermont Village Greens Initiative.

- c. Developing a database of residents' skills and knowledge, assessing whether they are willing to share them, and facilitating this transfer of knowledge.
4. Support efforts by the Grange Task Force to make the Grange a space used more frequently for community events, given the blessing of the Grange membership.

# **Hazard Mitigation and Flood Resiliency: Vision, Goals, Discussion, Policies, Actions**

## **VISION**

*Guilford will be secure from natural and human-caused hazards and their effects, including the threat of serious flooding and subsequent damages, so that the cost of recovery is minimized and residents and vital areas of economic activity and community services are protected.*

## **GOAL and POLICIES**

1. **It is the policy of the Town to** ensure that hazard mitigation planning is incorporated into all relevant community planning projects, including the Town Plan, Capital Improvement Plan, and Local Emergency Operations Plan.
2. Reduce the potential for loss of life or injury.
3. Reduce the impact of flooding on the Town’s water bodies, natural resources and historic resources.
4. **It is the policy of the Town to** be proactive in implementing any necessary mitigation projects for public infrastructure such as roads, bridges, culverts, municipal buildings, etc. to reduce the impact of:
  - a. disruption to the road network;
  - b. financial losses incurred by municipal, residential, industrial, agricultural, and commercial establishments;
  - c. damage to community infrastructure.
5. Ensure that Guilford residents participate in and are aware of hazard and flood resiliency planning, requirements, and responses.

## **DISCUSSION**

Over the years, Guilford has experienced damage caused by high winds, flooding and fluvial erosion, landslides, power outages, severe storms, etc. Utilities, broadband and cell coverage, government facilities, watersheds, and health and social services can all be severely impacted, thus threatening the Town (as well as surrounding communities and areas).

Flash floods are likely in Guilford and potential damage to Route 5 or Guilford Center Road, the Town’s major transportation corridors, could limit access to town. Additionally Hinesburg Road, Green River Road, Hale Road, and Weatherhead Hollow Road areas have seen damage in recent years from flooding and severe thunderstorms. There are constant road washouts during spring snow melt and summer rains.

Hazards cannot be eliminated, but it is possible to determine where probable hazards are most likely to occur or be most severe, as well as to identify actions to take to reduce

damages. It behooves us to be prepared locally as well as to participate with other communities in their plans and activities. In this spirit, Guilford has been actively involved in planning for hazard mitigation for two primary purposes: to be as secure as possible from natural or human-caused disasters AND to be eligible for the maximum disaster funding relief -- Emergency Relief and Assistance Fund (ERAF)-- to reduce the impact of severe damages on Town finances after declared disasters. ERAF compliance for the maximum State contribution of 17.5% requires:

1. adoption of a flood hazard bylaw that secures participation in the National Flood Insurance program (NFIP)
2. adoption of the most recent Agency of Transportation Town Road and Bridge Standards
3. adoption and maintaining of a Local Emergency Operations Plan (annually after Town Meeting)
4. adoption of a Local Hazard Mitigation Plan AND
5. adoption of a river corridor protection bylaw OR
6. Maintain an active rate classification under FEMA's NFIP Community Rating System that includes activities that prohibit new structures in mapped flood hazard areas.

The "Town of Guilford Local Hazard Mitigation Plan" was submitted to FEMA for approval early in February of 2015.

Barriers to implementation of the plan include:

1. Financial constraints of Town budget.
2. All volunteer emergency staff: although they function well, reliance upon all volunteers can be risky
3. With the closure of Vermont Yankee, there is less funding for emergency management in Guilford.
4. There is no Development Review Board.
5. There is no zoning.

Capabilities to build upon for implementation:

1. Active Selectboard, Planning Commission, Conservation Commission, and Emergency Management Director.
2. Great volunteer base, in addition to the EMD, to carry out projects.
3. Floodplain ordinance in place, with floodplain administrator.

Although there are barriers to overcome in project implementation, Guilford is in a good position overall. This is an exceptional community with committed volunteers who help the Town function well.

Guilford works closely with the VT Department of Emergency Management and Homeland Security by attending many workshops and training sessions. Typically 6-8 Guilford residents who either hold official positions, including Town Administrator, Emergency

Management Director, Co-Emergency Management Director, Road Foreman, Selectboard Chair, and others. They have attended trainings including “Train the Trainer,” Emergency Operation Center (EOC) operations, Benefit Cost Analysis, Hazard Mitigation Planning, etc. Guilford’s EOC is activated for all emergencies. Guilford is well-versed in emergency response planning and action. Guilford looks to and works closely with the Windham Regional Commission. Regional Plan policies for guidance on land use decisions inform Town Plan policies and goals. Additionally, the Town works closely with VT Department of Environmental Conservation, Agency of Natural Resources when mitigating any work in streams or rivers. Also, Guilford has adopted VTrans’ Town Road and Bridge Standards for road/culvert/bridge improvement projects.

### **ACTIONS and POLICIES**

1. Selectboard to confirm their adoption the Flood Hazard Area bylaw currently on the Town’s website to “promote the public health, safety, and general welfare, to prevent increases in flooding caused by the uncontrolled development of lands in flood hazard areas, to minimize losses due to flooding, and to maintain the Town’s eligibility to participate in the National Flood Insurance Program. “ Adhere to the guidelines therein.
2. Selectboard will enact the resolution adopting the Local Hazard Mitigation Plan once it is approved by FEMA Town of Guilford will adhere to the policies contained in the Hazard, pursue the projects laid out in the plan, and keep the plan updated and relevant.
3. Town Administration will continue to ensure, per Town flood regulations, that development is not permitted in the floodplain(s).
4. **It is the policy of the Town that** Guilford’s Emergency Management Director and the Town will work with Windham Regional Commission to monitor, evaluate, and update the hazard mitigation plan. Work will include:
  - a. Identifying and planning for ongoing hazard mitigation work (refer to the **Town of Guilford Local Hazard Mitigation Plan** table of Mitigation Actions submitted to FEMA early in 2015 prior to publication of this Town Plan and to Green River Corridor Plan Identified Mitigation Projects
  - b. Coordinating among stakeholders to identify structures and engineering projects that can help mitigate future hazardous events
  - c. Discussing status of structures in the Special Flood Hazard Areas as identified on the FEMA Flood Insurance Rate Maps
5. Encourage farmers to use swales on contour in their landscapes, particularly open fields on hills. Swales are a low-tech method for preventing high volumes of rainfall from entering our bodies of running water, essentially ditches dug on contour that slow surface runoff and provide a place for the water to gather until it can seep into the ground. In addition to flood prevention, this recharges the groundwater and can improve the fertility and production of existing fields. (One inch of rain falling on

one acre is equivalent to over 27,000 gallons of water and that water is best kept in the farmland for hay and/or food production.)

## Implementation

Effective implementation of this Plan requires careful consideration and action by the Townspeople, the Selectboard, Planning Commission, and other local boards, commissions and organizations. As the Town grows and comes under additional development pressure, Guilford will need to develop methods to deal with the inevitable problems. Among the many available methods which should be considered are the following:

1. **Planning:**
  - a. Create a 2015-2020 Town Plan Actions Matrix that details, among other things: actions, a timeline, involved parties, a schedule for the discussion and possible implementation with appropriate representatives and residents, and notes that cover budget impact, legislative acts, funding resources.
  - b. Our “planning program” should be strengthened, with Town Boards, especially the Planning Commission, taking the lead. Discussions of planning issues should become a regular part of commission and board agendas, with the matrix being used to guide priorities and measure progress. Effort by all the people of the Town is needed to sustain and enrich planning programs.
2. **Land Use Regulations:** Flood hazard, shoreland, and wetland regulations, subdivision regulations, and other ordinances should be considered to promote the public health and safety, environmental quality and protection of the quality of life.
3. **Land acquisition:** Acquisition by the Town through purchase, by lease, by easements of development rights, and by gift, is the most certain method for protecting valuable scenic and recreational lands, and for ensuring access and enjoyment of them.
4. **Taxation:** Vermont's Use Value Appraisal Program encourages long-term agriculture and forestry uses of property through tax incentives. The Program encourages the maintenance of undeveloped land for farming, forestry, and public recreation. The Town may also provide property tax relief for qualifying farm, forest, and open space landowners by adopting local tax stabilization programs to reduce local property tax burden. For general purposes, the assessing and taxing of land shall seek to strengthen the policies spelled out in this Town Plan, so long as they do not conflict with State laws or policies.
5. **Land Conservation** by Guilford Citizens: Landowners can negotiate conservation easements with organizations such as the Vermont Land Trust and The Nature Conservancy to protect productive agricultural and forest lands, wildlife and natural areas, and public recreation lands. Other private means of helping to implement this Town Plan include: Privately agreed-upon restrictive covenants (easements) binding on purchasers of land;
  - a. Consideration given to the objectives of this Plan by landowners when they build or subdivide;
  - b. Formation of conservation non-profits.

- c. Participation in the Act 250 review process by abutting landowners; and
- d. Participation in Town planning by citizens concerned about the future of Guilford.

## **Summary List of Actions** *(refer to each section for greater detail on actions)*

### **Settlements and Land Use**

1. The Planning Commission will work with Town administration, commissions, and interested parties to create proposals for preserving the character of our settlements and land for all Guilford residents
2. The Town will apply for a “Municipal Planning Grant” from the Department of Housing and Community Affairs to cover the cost of a design study for the Guilford Center neighborhood to aid in preservation of historic sites and determine feasibility of green space
3. Apply for renewal of the two Village Center designations when required.
4. The Town will continue to identify and map ridgelines, agricultural and forest lands, and wildlife corridors, and investigate opportunities to preserve them via economic incentives or conservation agreements.
5. The Planning Commission and Conservation Commission will work with neighboring towns to link conservation areas and critical conservation corridors across town boundaries.

### **Residents**

1. Access and leverage the range of regional expertise and resources that exists to serve local residents and businesses.
2. Establish a task force to create, maintain, and publicize the following:
  - a. Directory of social services, including Guilford Cares
  - b. Directory of local businesses, including agricultural and forestry operations
  - c. Community calendars
  - d. Civic opportunities (commissions, boards, task forces, elected positions, etc.)
  - e. Welcome packages for newcomers
3. Encourage all who have internet access to subscribe to and use Guilford Front Porch Forum and refer to [www.guilfordvt.net](http://www.guilfordvt.net) frequently for Town news
4. Support the revitalized Guilford Gazette; consolidate newsletter efforts and budgets across town to realize efficiencies of scale and communications.
5. Find ways to connect neighbors by attending school concerts, church-led initiatives, events at the Grange, the Guilford Fair, potluck dinners, etc.
6. Ensure that the Town’s address database is current and accessible for postal mailings (and email messages for those who opt in).

7. Establish a task force to coordinate volunteer opportunities in town, advance intergenerational contact, and overcome isolation (especially among seniors).

## **Housing**

1. Maintain and use the Guilford Community Loan Fund (provides affordable loans to lower income households to cover necessary repairs).
2. Create a Senior Housing Task Force to work with the community to explore aging-in-place options
3. Create an Affordable Housing Task Force to
  - a. examine and analyze the impact of affordable housing on Town taxes, services, and infrastructure.
  - b. analyze the way in which Town taxes affect the ability of people to become homeowners in our Town or to continue to be Town residents.
  - c. make recommendations for addressing issues discovered.
4. The Selectboard and any involved parties must bring housing development issues that could impact the Town's tax rate, services, and infrastructure to the Town for consideration.

## **Infrastructure:** Climate Change, Waste Management, Health, Emergency Services, Community Facilities

1. Understand demographic, economic, AND environmental patterns and trends that will shape our future and impact the Town's infrastructure, including the impact of climate change.
2. Encourage cost-effective waste disposal practices that protect our environment.
3. Ensure that the Town and its residents are informed about and able to comply with requirements of the Universal Recycling Law.
4. Appoint a qualified healthcare professional to serve as the Town's Health Officer who shall, by law make a sanitary survey of each schoolhouse, school lunch facilities, and any building used for public purposes, and annually in the month of February report to Selectboard.
5. Job performance of elected and paid Town officials shall regularly (annually) be evaluated and reported to the Town on Town governance issues and any others that may arise.
6. The Selectboard shall describe concerns about and establish a policy for dealing with conflict of interest among elected, appointed, and paid positions in Town.
7. Encourage residents to be proactive about planning for and meeting emergency needs.
8. Create a database of available emergency services should a weather occurrence render roads impassable or knock out power for an extended period of time.
9. Support the Town in planning, financing, and implementing an efficient system of public facilities and services to meet future needs.

## **Economy**

1. Complete work of bringing town-wide cellular and reliable *high speed* (5 mbps or above) internet to Guilford.
2. Conduct an inventory of Guilford's key assets.
3. Create a productive Economic Development/Small Business Incubator Space Task Force (ED/SBIS)
4. Encourage opportunities for citizens to develop employable skills and small-scale, including technology-related, businesses.
5. Encourage environmentally sustainable practices in all business operations in Town, including but not limited to agriculture, forestry, auto repair, and construction.
6. Ensure that businesses and industries act in an environmentally responsible manner.
7. Promote economic growth that is consistent with local and regional objectives.
8. The Selectboard will appoint a representative to work with the BDCC and SeVEDs to monitor the ongoing wind-down of Vernon's Vermont Yankee power plant and take advantage of corresponding economic and other resources resulting from its transition.

## **Recreation**

1. Explore the possibility of using State aid and/or private funds for recreational trails.
2. Seek funds for planning for and construction of a system of paths.
3. Seek funds to identify and acquire easements for a system of recreational trails.
4. Support efforts of residents to preserve recreational facilities on private land.
5. Be responsive to private landowner concerns about property rights.
6. Encourage Town-wide recreational events.

## **Historic and Cultural Resources**

1. Protect archaeological, architectural, and historic sites and districts.
2. Support Cemetery Commission's in ensuring integrity of Town's cemeteries.

**Natural Resources** (refer to pp 40 – 58 for complete list of actions)

## **Energy**

1. Develop policies which encourage energy conservation.
2. Explore options for photovoltaic (PV) installation to power Guilford's public buildings.
3. Promote education about energy audits, current best practices for energy production and home heating, and weatherization programs and encourage their use.
4. Periodically conduct an energy audit of all public buildings.
5. Encourage and support cross-sharing of information about and experiences with renewable and sustainable energy sources and practices.

## **Education**

1. Assess needs of parents/students vis-à-vis early childcare/after-school programs
2. Discuss options with GCS administration surrounding the use of their facilities for early childcare or after-school options or look into other buildings
3. Form a volunteer committee charged with
  - a. Meeting with GCS faculty to further understand their needs relative to their curriculum.
  - b. Creating an outdoor learning and green gathering space in the Guilford Center Village in collaboration with the State-supported Vermont Village Greens Initiative.
  - c. Developing a database of residents' skills and knowledge, assessing whether they are willing to share them, and facilitating this transfer of knowledge.
4. Support efforts by the Grange Task Force to make the Grange a space used more frequently for community events

## **Hazard Mitigation and Flood Resiliency**

1. Selectboard to confirm adoption of the Flood Hazard Area bylaw currently on the Town's website and adhere to the guidelines therein.
2. Selectboard will enact the resolution adopting the Local Hazard Mitigation Plan once approved by FEMA and adhere to the policies.
3. Continue to ensure, per Town flood regulations, that development is not permitted in the floodplain(s).
4. Guilford's Emergency Management Director and the Town will work with Windham Regional Commission to monitor, evaluate, and update the hazard mitigation plan.  
Work will include:
  - a. Identifying and planning for ongoing hazard mitigation
  - b. Coordinating among stakeholders to identify structures and engineering projects that can help mitigate future hazardous events
  - c. Discussing status of structures in the Special Flood Hazard Areas as identified on the FEMA Flood Insurance Rate Maps
5. Encourage farmers to use swales on contour in their landscapes

## **Relationship to Adjacent Municipal and Regional Plans**

In preparing this Plan there was due consideration of development trends, the Town Plans of neighboring Vermont municipalities, and the Windham Regional Plan. This Town Plan addresses development trends in this town and in the area through proposing future land uses that preserve the existing settlement patterns in Guilford and adjacent areas and protecting valuable and common resources. We find it is compatible with the Town Plans of Brattleboro, Halifax, Marlboro, and Vernon and with the Windham Regional Plan.

For example, where Guilford abuts Brattleboro, our proposed high density mixed use area adjoins a planned unit development in Brattleboro, proposed residential areas adjoin similar areas in Brattleboro, and proposed conservation areas adjoin agricultural resource areas in Brattleboro. Similarly, where Guilford abuts Halifax, conservation areas in the two towns meet at the town line, as do low density rural residential areas. Abutting Vernon, across the shared transportation corridors of Route 5 and I-91, are protected lands of the Roaring Brook Wildlife Management Area in both towns.

The Town Plan is compatible with the Windham Regional Plan (<http://windhamregional.org/publications>) in land use categories and policies. The Town Plan proposes similar areas for villages and residential areas, as well as for promotion of agricultural and forestry resource lands and conservation areas.

# Guilford Center Village Center Town of Guilford, Vermont

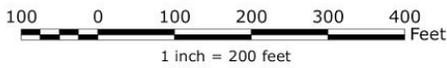
 Village Center District

Parcel use:

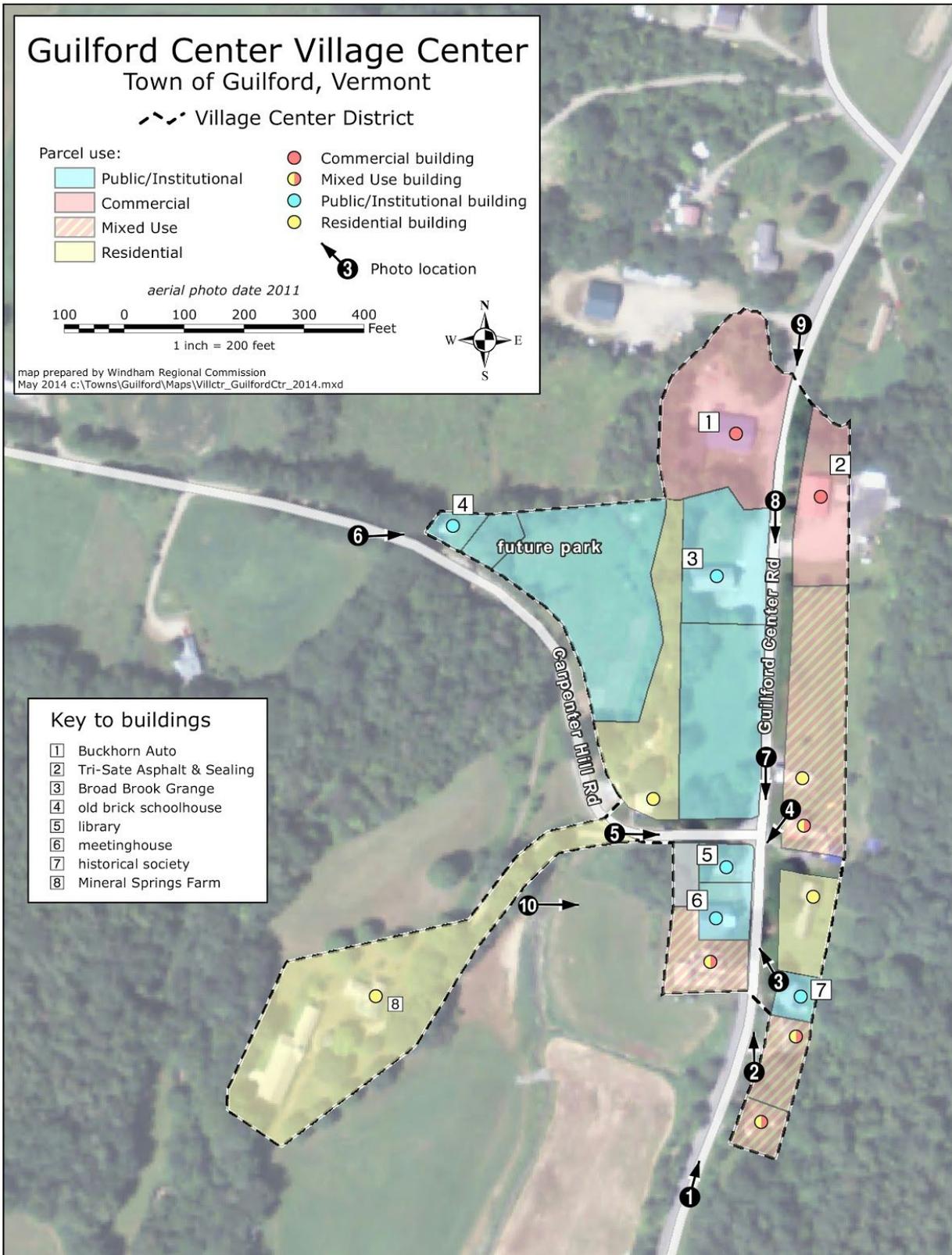
- |  |   |
|--|---|
|  Public/Institutional |  Commercial building           |
|  Commercial           |  Mixed Use building            |
|  Mixed Use            |  Public/Institutional building |
|  Residential          |  Residential building          |

 Photo location

*aerial photo date 2011*

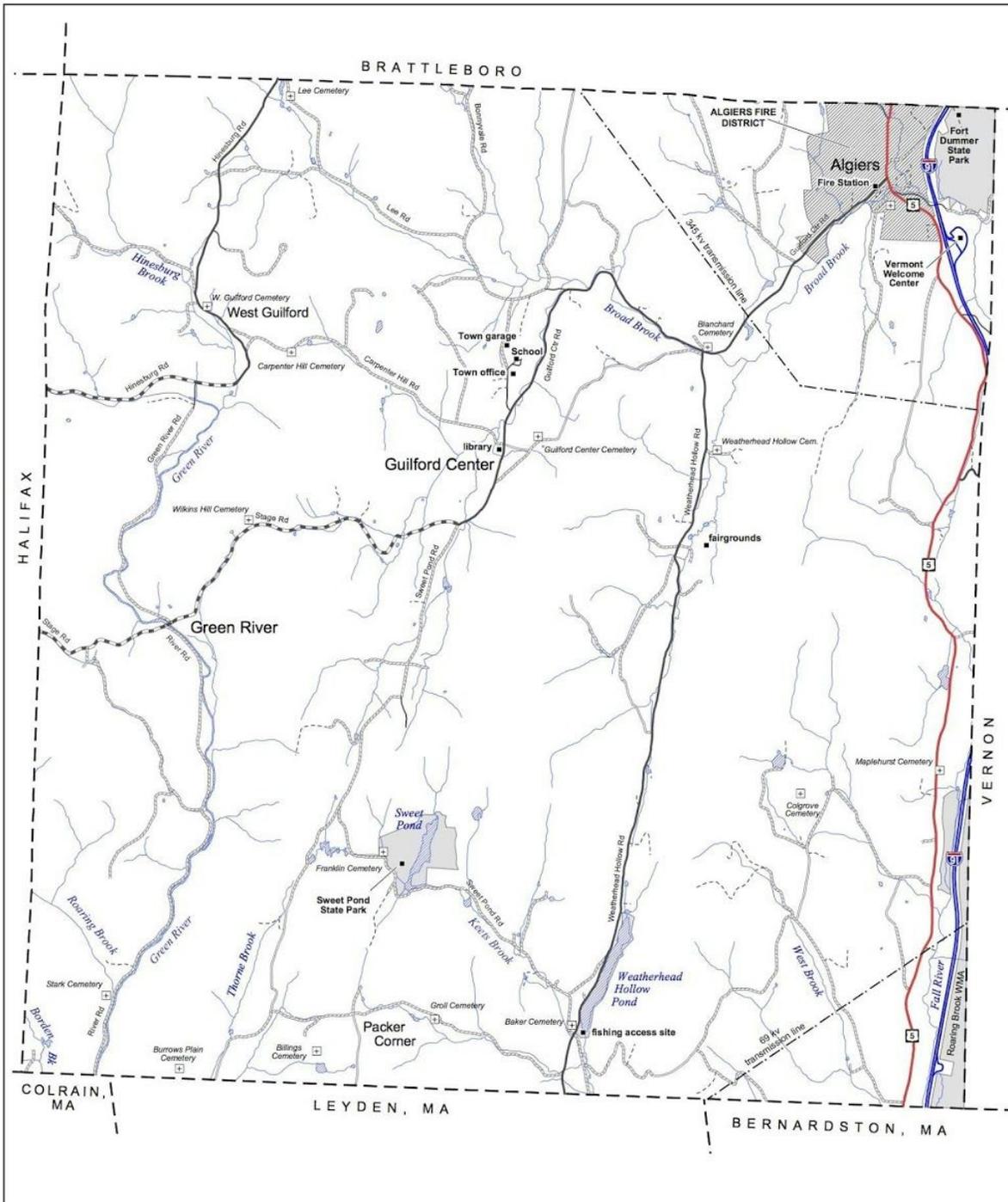


map prepared by Windham Regional Commission  
May 2014 c:\Towns\Guilford\Maps\Villctr\_GuilfordCtr\_2014.mxd



## Key to buildings

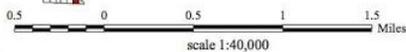
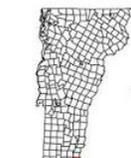
-  Buckhorn Auto
-  Tri-Sate Asphalt & Sealing
-  Broad Brook Grange
-  old brick schoolhouse
-  library
-  meetinghouse
-  historical society
-  Mineral Springs Farm



# Community Facilities & Utilities

## Town of Guilford, Vt.

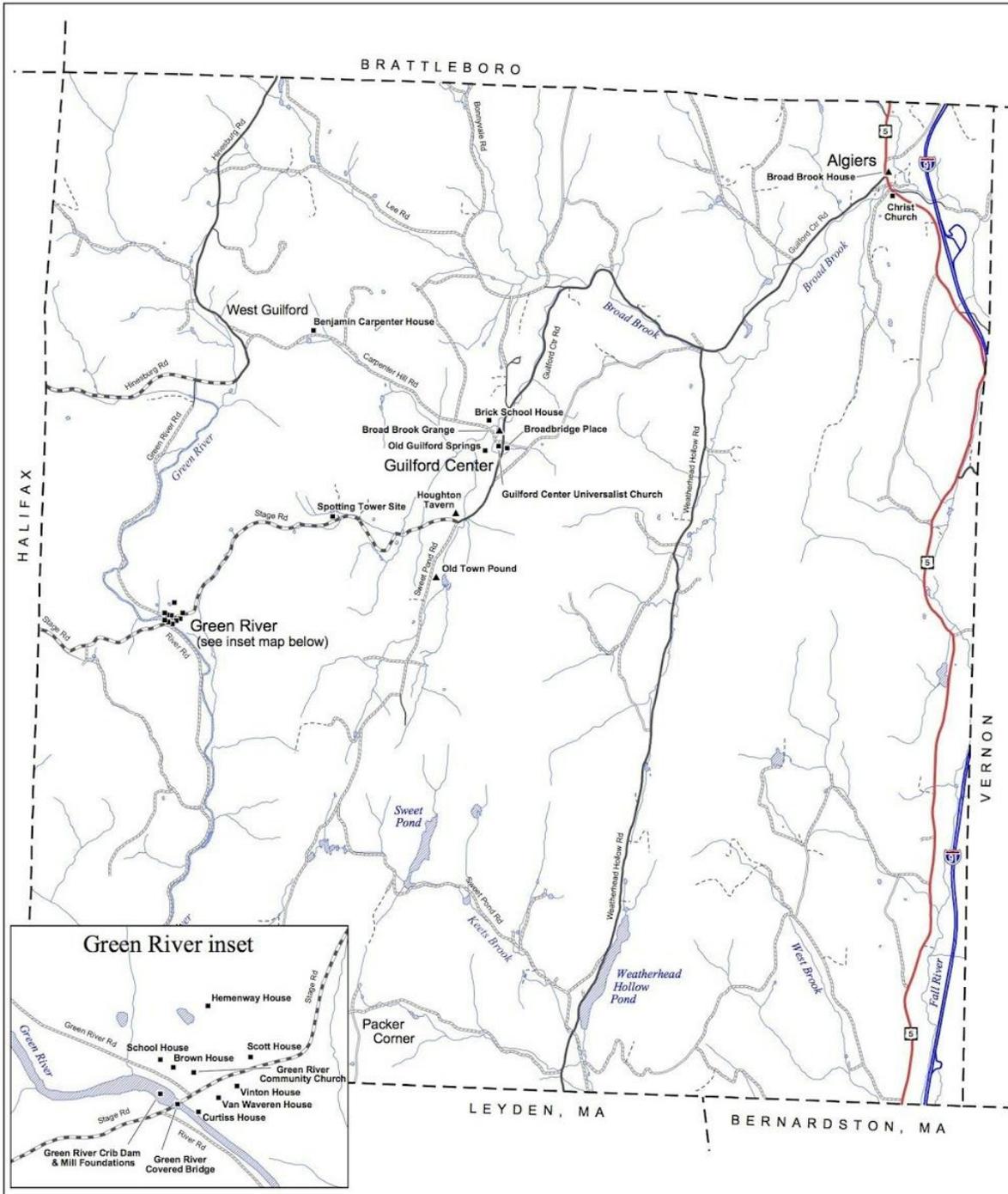
April 2005



- ☐ Cemetery
- ▨ Algiers Fire District (sewer district)
- ▭ Public land
- Electric transmission line

**Data sources:**

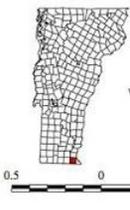
- Electric transmission lines were digitized from 1:5000 orthophotos by Greenhorn & O'Mara Inc. under contract with OGIS.
- Cemeteries were located by the Guilford Planning Commission and WRC using 1:5000 digital parcel data and orthophotos.
- Community facility locations were determined by WRC using 1:5000 orthophotos and building points captured by GPS for Vermont's Enhanced 9-1-1 project.
- The boundary of the Algiers Fire District was developed by WRC using 1:5000 digital parcel boundary lines.
- Public lands data are from 1:5000 digital parcel data.



# Historic Sites

## Town of Guilford, Vt.

June 2005



WINDHAM  
 REGIONAL  
 COMMISSION  
 139 Main St • Suite 305 • Brattleboro, VT 05301  
 802.257.4547 www.windhamregional.org

- Site on National or State Register of Historic Places
- ▲ Site of local historic significance

- Town boundary
- Interstate highway
- Federal Highway
- Class 2 town highway - paved
- Class 3 town highway - paved
- Class 3 town highway - unpaved
- Class 4 town highway (unpaved)
- Private road/drive
- Stream
- River or pond

Data sources:

- State and national register historic sites data were collected by Mrs. Barrard's class at Guilford Central School in 1998. The locations are based upon structure locations captured using Global Positioning System technology by microDATA, St. Johnsbury, VT for Vermont's Enhanced 9-1-1 program. Locations have been edited by WRC using 2000 Vermont digital orthophotos.

- Sites of local historic interest were identified by the Guilford Planning Commission. The locations are based upon structure locations captured using Global Positioning System technology by microDATA, St. Johnsbury, VT for Vermont's Enhanced 9-1-1 program. Locations have been edited by WRC using 2000 Vermont digital orthophotos.

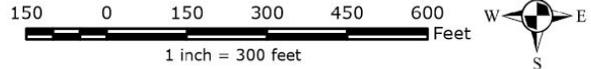
0.5 0 0.5 1 1.5 Miles  
scale 1:40,000

# Algiers Village Center

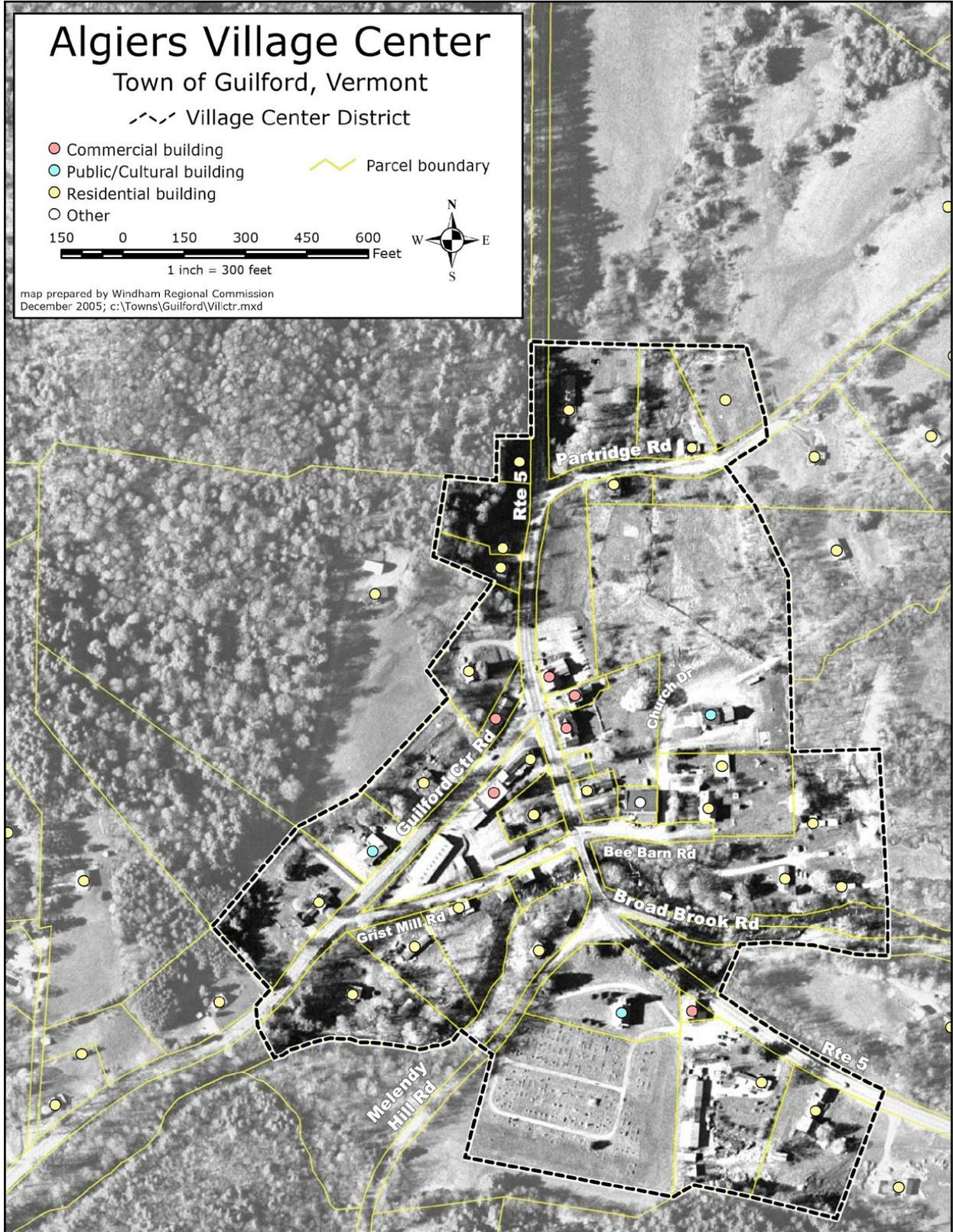
Town of Guilford, Vermont

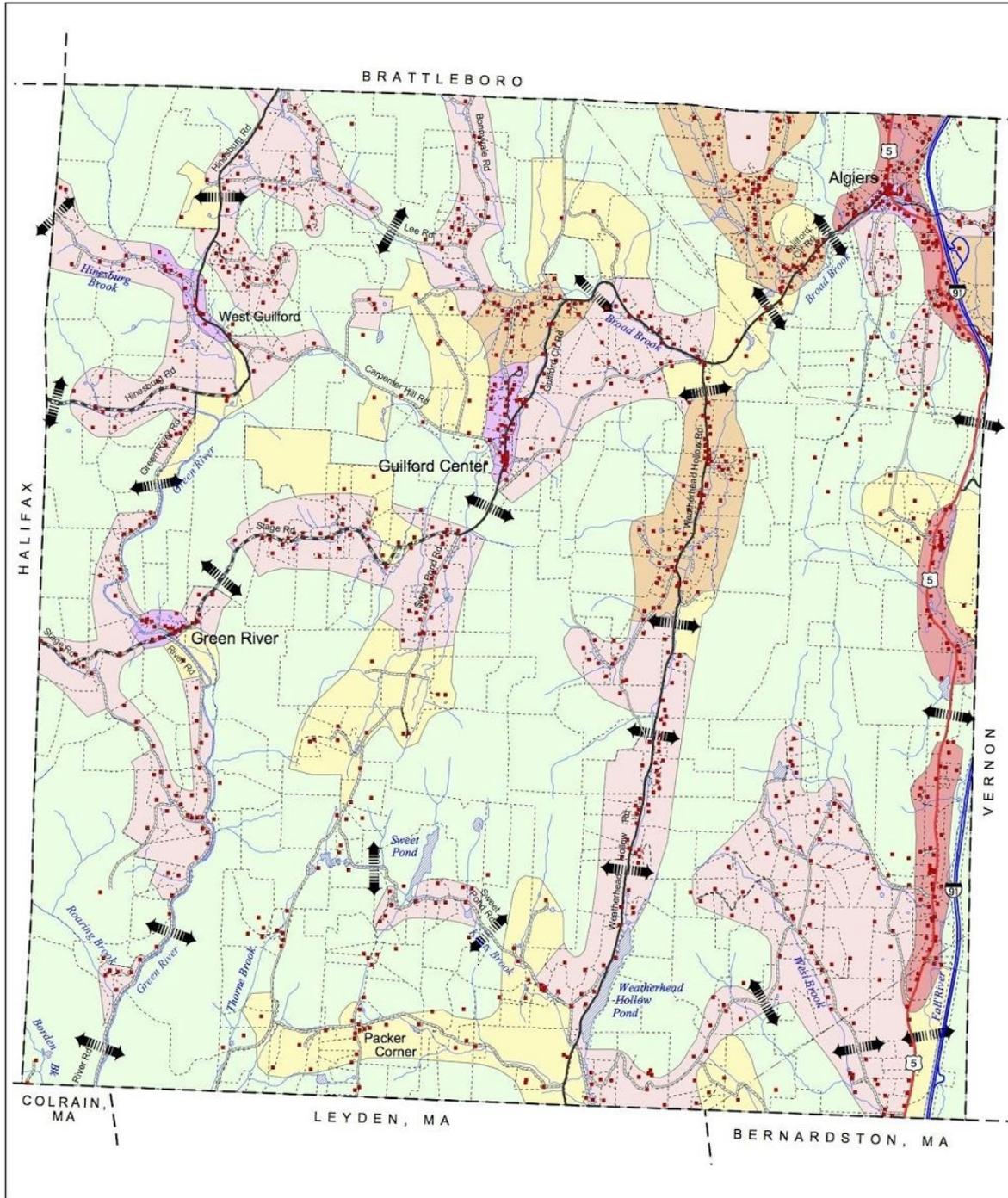
--- Village Center District

- Commercial building
- Public/Cultural building
- Residential building
- Other
- Parcel boundary



map prepared by Windham Regional Commission  
December 2005; c:\Towns\Guilford\Villctr.mxd





# Proposed Land Use Town of Guilford, Vermont

May 2010



0.5 0 0.5 1 1.5 Miles  
scale 1:40,000

### Critical Conservation Linkages:



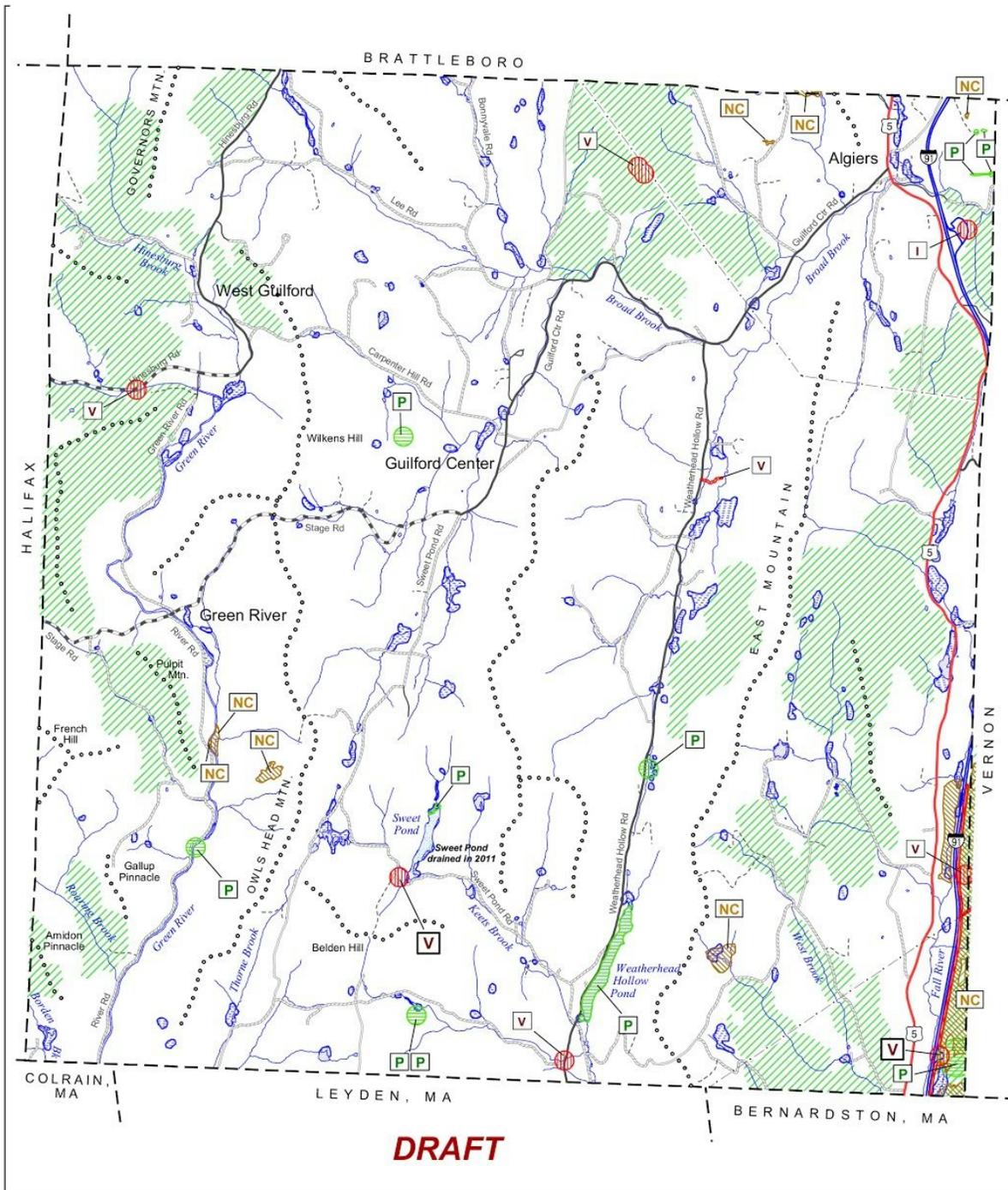
### Land Use Areas:

- Historic Village
- High Density Mixed Use
- Low Density Mixed Use
- Residential
- Agricultural Resource
- Conservation

- Interstate highway
- Federal Highway
- Class 2 town highway - paved
- Class 3 town highway - paved
- Class 3 town highway - unpaved
- Class 4 town highway (unpaved)
- Private road/drive
- Stream
- Town boundary
- River or pond
- Buildings
- Electric transmission line
- Parcel boundary

Data notes:  
- Proposed land use area boundaries and critical conservation corridors were determined by the Guilford Planning Commission. Refer to the 2010 Guilford Town Plan for a description of each future land use district.

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# Natural Resources

## Town of Guilford, Vermont

March 2015

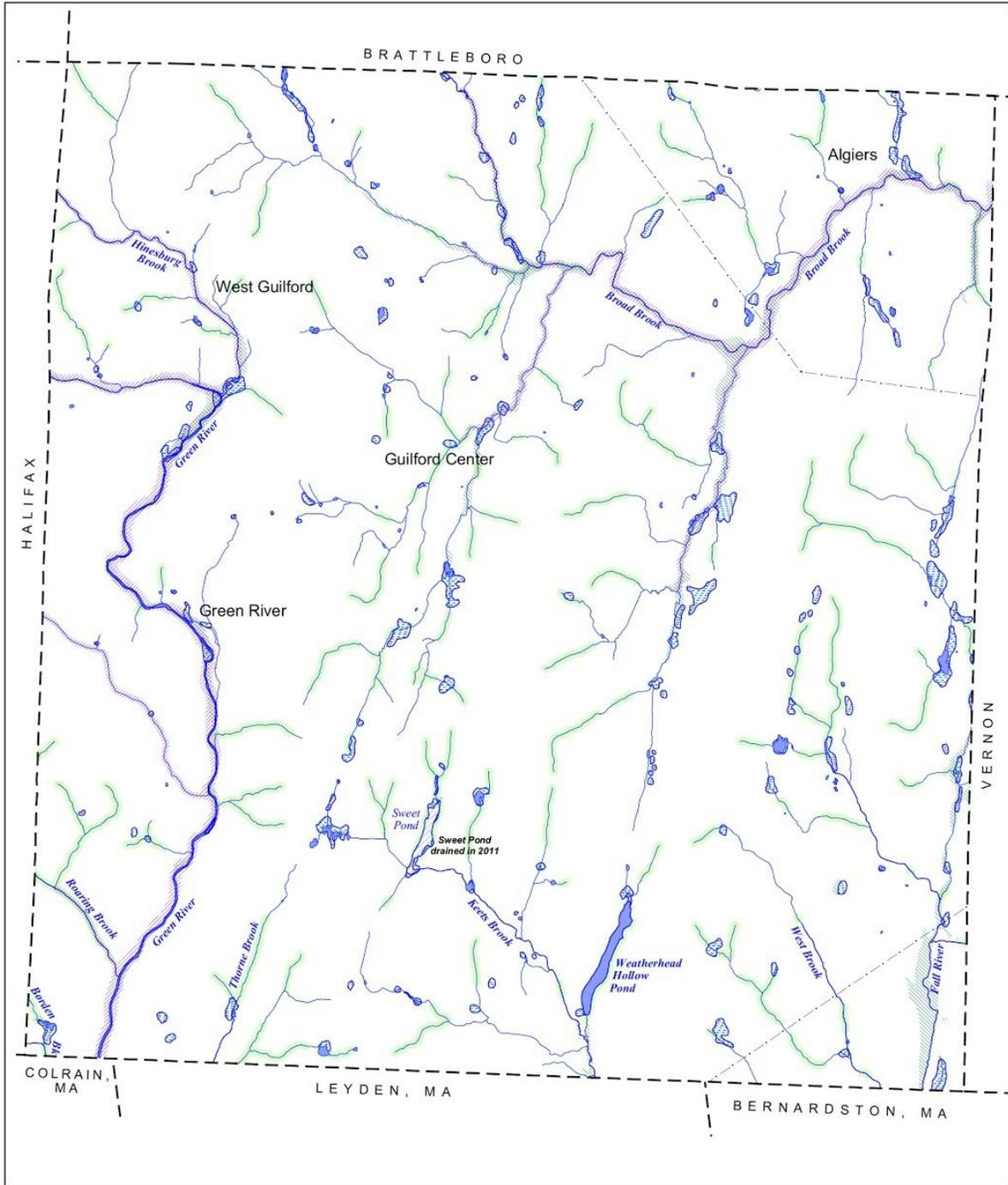


- Town boundary
- Stream
- River, pond
- Wetland
- Deer wintering area
- Important ridgeline

- Natural heritage data occurrence:
- V Vertebrate, state threatened or endangered Plant
  - V Vertebrate
  - T Invertebrate
  - NC Natural community

Data sources:

- Locations of rare and uncommon plant species were determined from VT ANR Department of Fish and Wildlife, Nongame and Natural Heritage Program's Rare, Threatened and Endangered Species and Significant Natural Communities database. The data used are current to January 2015. Locations are approximate, but generally within 500 feet. For further information, contact the Nongame and Natural Heritage Program.
- Deer wintering areas delineated by VT ANR, Department of Fish and Wildlife. Digital data released in 2011 (the most current available) were used.
- The wetlands shown are those included in the Vermont Significant Wetlands Inventory (VGIS data layer VSWI). For the most part, these data were derived from US Fish and Wildlife Service's 1:24000/1:25000 scale National Wetlands Inventory (NWI) maps. These maps show approximate locations of wetlands that are generally 3 acres or larger in size.
- Surface waters are from the Vermont Hydrography Dataset (VGIS data layer SWmmmmmm). The dataset was generated at a scale of 1:5000 and was developed using digital orthophotos, topographic maps, color infra-red aerial photography and other ancillary data sources.
- Important ridgelines were identified by the Guilford Planning Commission in 2005.

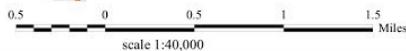


# Water Resources

## Town of Guilford, Vermont

**DRAFT**

March 2015



- Town boundary
- Stream
- River, pond
- Wetland
- Special flood hazard area
- River corridor
- Undeveloped stream, river, or pond

Data sources:

- The wetlands shown are those included in the Vermont Significant Wetlands Inventory (VGIS data layer VSWI). For the most part, these data were derived from US Fish and Wildlife Service's 1:24000/1:25000 scale National Wetlands Inventory (NWI) maps. These maps show approximate locations of wetlands that are generally 3 acres or larger in size.
- Surface waters are from the Vermont Hydrography Dataset (VGIS data layer SWmmmmmm). The dataset was generated at a scale of 1:5000 and was developed using digital orthophotos, topographic maps, color infra-red aerial photography and other ancillary data sources.
- River Corridors encompass the area of land surrounding a river that provides for the meandering, floodplain, and the riparian functions necessary to restore and maintain the naturally stable or least erosive form of a river thereby minimizing erosion hazards over time. Data were developed by Vt. Agency of Natural Resources for streams with a drainage area of 2 square miles and greater.
- Special Flood Hazard Area boundaries (i.e. "the 100-year floodplain") are from FEMA (Federal Emergency Management Agency) D-FIRM (Digital Flood Insurance Rate Map) data effective September 28, 2007.

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