

# WESTMORE TOWN PLAN

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## **1. PURPOSE OF THE TOWN PLAN**

This plan will be effective only to the degree the community wishes to work together to make it so. Westmore is a very unique and special place. This belief gives rise to a sense of identity, affection, loyalty, and shared commitment to the town's welfare. These feelings are among Westmore's greatest resources and important assets.

The plan serves several functions. It helps define the community by laying out the general vision or direction for future development in the town. It identifies local needs and desires which are then written into an "implementation plan" which guides the actions and priorities of public officials. It clearly defines the Town's position on certain issues which leads to increased standing in Act 250 hearings and offers suggestions for improving local land use regulations. The plan also plays a role in Public Utility Commission (PUC) (Section 248) hearings. Before issuing a Certificate of Public Good, for most projects, the PUC must find that the "purchase, investment, or construction, with respect to an in-state facility, will not unduly interfere with the orderly development of the region with due consideration having been given to the recommendations of the municipal and regional planning commissions, the recommendations of the municipal legislative bodies, and the land conservation measures contained in the plan of any affected municipality." (30 V.S.A., §248(b)(1) Finally, an approved town plan is necessary for certain grant applications, including Municipal Planning Grants, and Community Development Block Grants. The plan itself has no regulatory power but it establishes a legal basis for adopting and enforcing zoning bylaws and flood hazard regulations, and it can help influence future decisions by setting a framework for the discussion, identifying issues and recommending actions.

The desire of the Planning Commission (PC) is to pull together the information we have received throughout the planning process into a document that reflects the vision and goals of the people who live in Westmore. Adoption of a plan represents a community decision about the town's future character, its priorities for land use, conservation of physical resources, and the encouragement of well-considered, responsible development. Westmore does not exist in isolation from the region and will be affected by what happens in other municipalities.

The residents of Westmore are custodians of a town with unquestioned natural beauty and significant resources which require diligent attention. Through adoption and implementation of the Plan, the Town and its residents are exercising their best stewardship for those resources which nature, history, and geography have so abundantly endowed.

## **2. OVERALL VISION**

The unique and special character of Westmore is derived from a combination of two principal factors: the historic, rural, seasonal character of the community and the infinite magnificence of Westmore's Willoughby Lake along with its other pond, mountain and farm settings. The Town's existing rural and seasonal character is partially an outgrowth of its agrarian and tourist/recreational past and is apparent today in its seasonally dynamic but tranquil community. The diversity of scenery, geographic location, natural beauty, natural resources and people of the

Town of Westmore create an essence of the town. These qualities can be found, and maintained, only in a community that continues to cultivate a close association with the land, and to nourish an appreciation and respect for both the productivity and physical limitations on the natural environment.

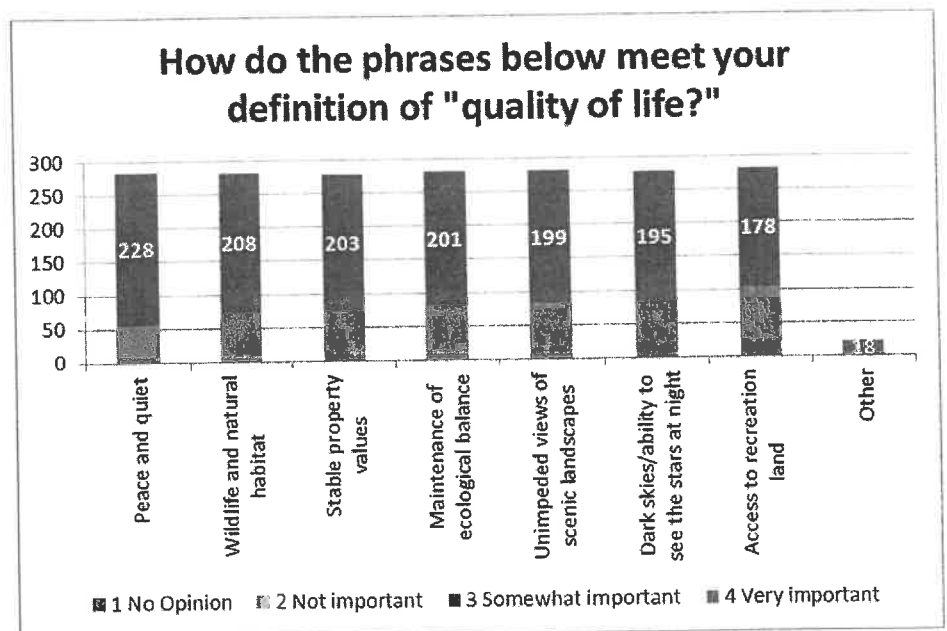
We recognize that although there may be general agreement on the need to maintain the natural and cultural quality of life in Westmore, people have different ideas on how to accomplish this. Therefore, the Town should provide information to landowners of the various options available to them and let them decide. In general, the Town should encourage actions through knowledge and the landowner's desire to enhance her/his position and quality of life. Land use regulations should be kept to a minimum and be enacted only on those areas critically important to maintaining the quality of life in Westmore and to protect the public health, safety, and welfare.

The community should strive to reach a sustainable balance in using our natural resources. With the underlying goals of maintaining water quality, scenic resources, and critical habitat, the town's natural resources should be used to support the local economy in forestry, farming and tourism. Westmore's economy should focus on local self-sufficiency and creating jobs from within the community. Industries that produce "value added" products from local natural and cultural resources should be encouraged. It is through greater self-reliance that our economy and future will be self-sustaining.

Westmore's rich array of natural resources has long been considered an integral part of the community's cultural heritage, and this has been reflected in the town plan. Unless updated and readopted, the town plan expires every eight years, creating an opportunity to reassess long-held beliefs and identify new and emerging concerns. In the summer of 2012, the Westmore Planning Commission conducted a community survey to reassess views on natural resources and gain insights into how the town plan may better reflect community values. The survey asked respondents to rank the significance of natural areas and means to protect them. The survey also sought feedback on a variety of strategies for protecting the town's scenic resources and for defining quality of life in Westmore. The Planning Commission received nearly 300 responses, representing a 44% return rate.

### **Rural Ambiance**

Not surprisingly, survey respondents cherished the rural ambiance of the community. "Peace and quiet" was the most



defining attribute of quality of life, yet all other factors ranked high as well. One of the important features of living on a rural lake is the opportunity to be able to enjoy the moon from a canoe, to look out from your dock and see the stars and night sky, to feel like you live in a quiet remote area. As more people have built homes, walkways and docks, the amount of outside lighting has increased. There are more street lights, walkways are lit-up, and flood lights illuminate the night woods. The traditional lights flickering in the warm windows have been changed by bright deck lights and lighted stairways. The qualities of a rural lake have been diminished. The rural ambiance has been decreased. And as more people move to the area, the problem may get worse. The lake residents should be aware that the lights on their stairway illuminate more than just the stairs themselves.

Our community's rural character, is seen by many to be in peril. A number of respondents had much to say regarding impacts from existing wind developments in nearby towns of Sheffield and Lowell, both of which can be seen heading west from Hinton Hill toward Willoughby Lake, and both of which add flashing red lights to Westmore's otherwise dark night skyline. Other threats to Willoughby's rural ambiance include runoff and loss of active farming and its associated working landscape.

### **Willoughby as a National Natural Landmark**

The Willoughby Lake area was designated as a National Natural Landmark (NNL) in 1967, just five years after the NNL program was created. This designation is permanent and should factor prominently into any local, state, or federal land use policies.

To be designated, NNL sites must demonstrate the best remaining examples of specific biological and/or geological features. Today there are fewer than 600 sites that have earned this designation through the U.S. and U.S. territories, and there are only 12 sites in Vermont. Here is how the Willoughby Lake Area is described in the National Natural Landmarks Directory (2009).

*"Lake Willoughby, a deep, cold-water lake within Lake Willoughby Natural Area lies in a u-shaped trough cut into granite by glacial scouring. Mountains and 1,500-foot cliffs rise abruptly from the lake's east and west shores. It is the deepest lake in Vermont and one of the most significant and scenic examples of glacial erosion in the northeast."*

The NNL program regulations require the National Park Service to monitor the condition of each designation site in order to ensure that they still contain the values and conditions that qualified them for designation in the first place. A guiding principle for monitoring is to ensure that the resource remains unimpaired or in a natural condition, and that the site's "natural integrity has not been diminished." (<http://www.nature.nps.gov>) The designation also impacts any development that requires federal permits (such as National Environmental Protection Act). Finally, although the designation is permanent, it may be removed if the resources for which the site was designated are lost or destroyed.

NNL designation can include public and/or private lands, and the designation is not tied to any administrative boundary. Although the Willoughby designation area is identified as "state-

owned” land, it is impossible to evaluate the significance of the Willoughby Lake and Cliffs area without considering its dramatic backdrop of forested high elevation areas that rise from every point on the horizon surrounding it. The lake area and the village are at the bottom of a unique topographical bowl configuration that creates a spectacular 360-degree viewshed.

While scenic natural beauty is a hallmark of life in the Northeast Kingdom, Westmore’s iconic viewshed of Willoughby defines the community both culturally and economically. Westmore’s identity is tied to a landscape that has served as inspiration for artists and writers and has made the community a destination for more than a century. The lake area draws visitors worldwide, who spend on recreation, dining, and entertainment establishments all over the Northeast Kingdom. While the NNL designation can and should be taken into account for all federal permitting process, it should be a critical factor in local land use decisions as well, including Act 250 and Section 248. Given the significance of this designation, the Westmore Town Plan asserts that any development of 100 feet or higher that can be viewed from any point in the NNL designation area be considered a development of substantial regional impact.

### **3. POLICY STATEMENTS**

1. Land use regulations should be kept to a minimum and be enacted only on those areas critically important to maintaining the quality of life in Westmore and to protect the public health, safety and welfare of the community. (throughout plan)
2. Protecting water quality, scenic landscapes and views, wildlife habitat, forested areas, and ridgelines is a high priority. (–Overall Vision; Water Quality; Forests; Natural Areas, Wetlands and Wildlife; Scenic Features, Historic Features, Recreation, Economic Development, Water Supply)
3. Retaining the quality of life, scenic attributes, diversity of wildlife, and environmental harmony and beauty that are the products of responsible farming and forestry is a priority. (Overall Vision; –Water Quality; Agriculture; Forests)
4. Any development 100 feet or higher that can be viewed from any point in the National Natural Landmark designation area should be considered a development of substantial regional impact. (Overall Vision)
5. Retain or increase the number of working family farms while encouraging acceptable agriculture practices. (–Overall Vision, Agriculture)
6. Maintaining a healthy and vibrant forest and forestry industry in Westmore through long term forest stewardship is important. (Overall Vision, Forests)
7. Maintaining the diversity of habitat and species that exist in Westmore is a priority. (–Overall Vision; Natural Areas, Wetlands and Wildlife)
8. Maintain and enhance the important role that public lands play in Westmore. (State Lands)

9. The important economic and social role recreation plays in Westmore is recognized and should be enhanced. (–Overall Vision; Forests; State Lands; Recreation, Economic Development)
10. Enhance the historic and cultural features in town. (Historic Features)
11. Maintaining the high quality of education for Westmore’s young people and providing ongoing educational opportunities for all ages is important. (Education)
12. Maintaining and enhancing a diversity of housing in Westmore is important. (–Housing)
13. Maintaining and improving the existing road network is important. (Transportation)
14. Promote a reduction in local dependence upon costly non-renewable energy resources by encouraging conservation and the development of local, residential-scale renewable energy resources. (Energy)
15. Businesses and services which will enhance the economic potential of our renewable natural resources, recognizing that tourism and recreation resources are important to the economy, are a priority. (–Overall Vision; Forests; Recreation; Economic Development)

#### **4. HISTORY**

Westmore was incorporated with the name of Westford on August 17, 1781 with a Land Grant Charter signed by then Governor Thomas Chittenden. The town was to be six miles squared.

As with all Land Grant Charters, each proprietor had to fulfill certain conditions to retain land ownership. Each family must clear, plant, and cultivate at least five acres of land, and build a house of at least 18 square feet. A family must be settled on the parcel within three years after it became safe to do so due to the war. All pine timber suitable for naval use was reserved for the government.

The charter also recognized the overall needs of community development because lots were left for the support of the worship of God (Church lot), minister’s lot, school, and seminary.

On October 26, 1787 the General Assembly of Vermont acted to change the name of the town from Westford to Westmore. This was due to the fact that there was another town named Westford in Vermont.

On November 15, 1821 the General Assembly changed the county lines so that Westmore, which had been in Essex County, ended up in Orleans County where it is today.

At the time of the War of 1812, the town was abandoned due to fears they would not be able to protect themselves from possible attack from the north, and yet were too far removed from others and too few in number to be able to be safe. The town was re-settled in the 1830’s.

In 1838 Peter Gilman, with two others, petitioned the legislature for the right to levy a four cent per acre municipal tax to complete the lake road. This was granted by the legislature and is probably the first “municipal” property tax to be assessed in Westmore. It was a “single” issue

tax and there is no record that it was continued at this time.

The seasonal, resort character of Westmore began to develop after the Lake Road was completed.

The population peak of Westmore appears to have been 480 in 1889. The present population (year round) is 350.

At one time Westmore had six one-room schools and a school census of 119 pupils; today's is 57. This figure is derived from the American Community Survey (ACS) 5-Year Estimates (2012-2016). The ACS reports that there are 57 residents aged three and older who are enrolled in school. Of this number, 12 are enrolled in college or graduate school.

## **5. TOWN PROFILE**

### **Physical Attributes**

The town of Westmore occupies 22,193 acres, five percent of the landmass of Orleans County. Westmore has several lakes and ponds, including Willoughby Lake (1,653 acres) which lies in the dramatic Willoughby Gap. The town is also home to Sentinel Rock State Park (387 acres) and the 215 acres of the Bald Hill Wildlife Management Area, which also contains land in Newark. The southwestern corner of the town contains 2,177 acres of the Willoughby State Forest, which extends into Sutton and includes the 950-acre area composed of the cliffs of Mount Pisgah and Mount Hor. This section is known as the "Willoughby Cliffs Natural Area" which is part of the National Natural Landmark designation.

### **Population**

Westmore has the smallest population of any town in Orleans County with 350 persons (2010 Census). This represents practically a 14% change from the 2000 census population of 306, in comparison to a 3.6% increase in the Orleans County population and a 2.8% statewide increase over the same period.

Westmore's 350 persons represent just a little over 1% of the county's population, and the town's population density is lowest in Orleans County at 8.8 persons per square mile. (The vast majority of Orleans County has fewer than 30 persons per square mile and the statewide average is 67.9).

### **Age Distribution**

Westmore's population is getting older, following the national trend of the aging of "baby-boomers". The table below shows a comparison of the breakdown of the 1990, 2000 and 2010 populations into age groups, and also illustrates the percent change from 1990 to 2010 in each age group.



**TABLE 1      Percent Changes in Age Groups 1990 - 2010**

Ages	Under age 5	5-19	20-44	45-64	65 and over
1990	10	78	108	53	56
2000	13	46	85	111	51
2010	12	43	75	139	81
Change	+20%	-45%	-31%	+162%	45%

Source: U.S. Census 1990-2010.

The above shows a 162 % increase in the 45-64 age group, a 45% increase in 65 and older. While there is a modest increase in the 0 -4 age group, there is a significant decline in the other groups, aged 5-44. This skewed age distribution may have an effect upon the type of public services and housing opportunities which will be in demand over the coming years.

In 2010 Westmore had a population of 350. Of that population 12 were under 5 years old, 257 were between 5 and 65, and 81 were over 65 years old. The median age was 53.1(up from 45.9 years in the 2000 Census) , compared to the current statewide median of 40.4 years.

Westmore's changes in age group distribution reflect long-term trends in the county and state. In August 2013, the State of Vermont released a new set of population projections to 2030. Unlike earlier projections, these projections use TWO scenarios. "Scenario A" assumed an in-migration rate similar to what occurred from 1990 to 2000, when the economy was more robust. "Scenario B" assumes an in-migration rate in line with what occurred from 2000 to 2010, a decade plagued by lingering recession and economic turmoil. Scenario A projected a fairly robust population increase in Westmore of 12% by the year 2030, while Scenario B shows very modest gains of only 3.4% over the same period. In either scenario, population gains will likely be among age groups 60 and older. County-wide age projections show significant gains in those age groups, as well as a decrease in younger groups.<sup>1</sup>

### **Household Types**

According to the Census, the 2010 population of Westmore lived in 165 households, which can be broken down into the following categories:

Total households	165
Family households	105
with own children under 18 years	29
Husband-wife family	89
with own children under 18 years	17
Single householder, no spouse present, with own children under 18 year	12
Nonfamily households	60
Householder living alone	51

The total number of households in town increased by 11.8. % between 1990 and 2000, from 119 to 133 and by 24.1% between 2000 and 2010, to a total of 165. In 1990, there were 11

<sup>1</sup> Vermont Agency of Commerce and Community Development: Vermont Population Projects 2010-2030, August 2013.

households with children under 18 which were headed by a single parent; in 2010 there were 12.

### **Income**

According to the American Community Survey (ACS) 5-Year Estimates 2012-2016 the median household income in Westmore is \$41,071, which is 7% lower than the county-wide median household income of \$43,959.

### **Where People Work**

According to ACS 5-Year Estimates 2012-2016 (U. S.), 315 residents in Westmore are over the age of 16. Of this population, 170 are in the labor force and are employed. Like many NEK towns, Westmore is highly auto-dependent. There are 155 workers who drive to work, with an average commute of 34.6 minutes. There are only 7 who work at home; the rest either walk to work or use other means.

### **Regional Employment**

According the Vermont Department of Labor, the average wage for all covered employment (private and government employment covered by Vermont unemployment insurance) in Westmore was \$34,643, 2.5% below that of \$35,504 for the county and 31.4% below that of the state's \$45,054. The primary form of covered employment is in the services providing domain – 1 in the retail sector, 1 in professional and technical services, and 2 in hospitality and food services. Employee counts are largely suppressed, but there are 33 covered employees in Westmore, 10 of which are in the government sector.

The three dominant categories of covered employment in Orleans County during 2016 were: services (annual average of 6,350 covered employees), goods producing (2,341 employees), and government (2,044 employees, working at the federal, state, or local level).<sup>2</sup> The services category included leisure and hospitality (1,473 employees); education and health services (1,814 employees), and retail trade (1,519 employees). Goods producing included manufacturing (1,413 employees), construction (653 employees), and the natural resources and mining supersector, which includes agriculture and forestry (275 employees). In this supersector, 192 were employed in animal production, 27 in logging, and another 20 in agriculture and forestry support. These figures, however, do not account for the many people in these fields who are self-employed and are not covered by unemployment insurance.

Employment activity in Westmore is covered in greater detail in Section 18 Economic Development.

## **6. WATER QUALITY**

Protecting water quality is a high priority in the Town of Westmore. Activities such as logging on steep slopes or down to the water's edge, building houses close to the water, run-off from gravel roads, and cutting vegetation along the shore all affect the quality of water.

Due to the steep topography which increases the likelihood of run-off, the lakes and ponds in

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<sup>2</sup> Vermont Department of Labor, Economic & Labor Market Information, Covered Employment 2016, <http://www.vtlmi.info>, accessed February 2018.

Westmore are especially vulnerable. Long Pond has a small watershed and drains directly into Willoughby Lake. Therefore, precautions in this area of town are especially important.

Westmore's forest cover provides stability to Westmore's lakes, ponds, and streams. Westmore's forest cover – which is largely located on higher and steep terrains -- intercepts precipitation, which then gets percolated into subsurface water systems. Loss of the tree cover, however, can mean a loss of ability to intercept precipitation and slow down surface runoff. The result can be non-point source contamination and flash flooding.

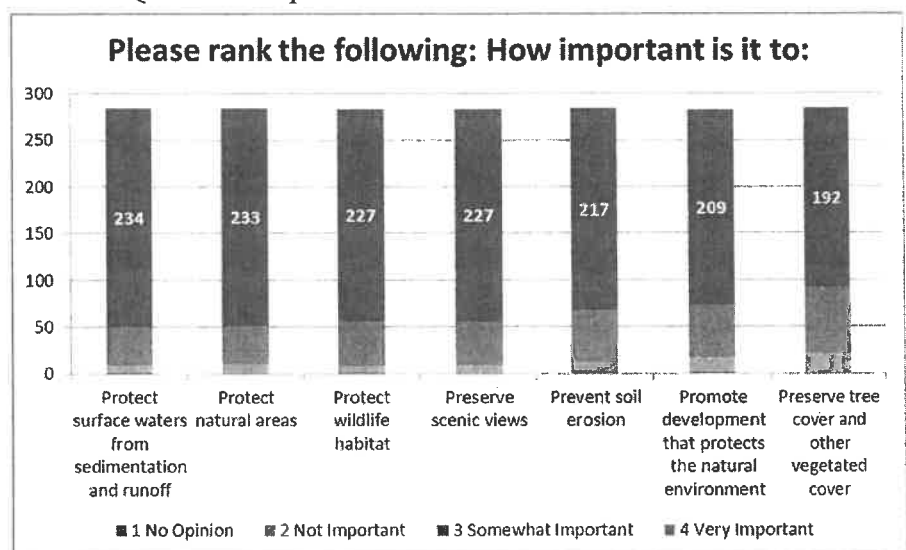
### **Non-Point Run-Off**

Non-point pollution comes from a variety of sources such as erosion due to house construction, deforestation, failing septic systems, grass clippings from lawns, manure spread on fields, gravel washing off the roads, improper or excessive application of lawn fertilizers, herbicides and pesticides, etc. By definition non-point pollution tends to be dispersed and diluted. However, all these activities combined contribute to downgrade the water quality. Nutrient inputs such as phosphorous, nitrogen and organic matter lead to eutrophication (the increase in the amount of nutrients available for water plants such as algae) which increases the growth of these plants thus leading to a decrease in the amount of oxygen available for fish and other life in the water. Increased nutrients reduce water transparency resulting in increased water temperature. Undesirable chemical products like pesticides and heavy metals threaten human health and the survival of the aquatic ecosystem.

In 1990-93 the governments of Vermont and Quebec set up a task force to look into water quality issues in the Lake Memphremagog watershed. The Quebec/Vermont Working Group on Managing Lake Memphremagog and Its Environment Report states the nutrient content of run-off from various land uses. It found water coming from agricultural land contained four times more phosphorus than water running off undisturbed forest land. Run-off from urban/built-up land contained twelve times more phosphorus than run-off from forested land.<sup>3</sup>

### **Tactical Basin Planning**

The Vermont Clean Water Act of 2015 was enacted to authorize and prioritize proactive measures to limit phosphorous concentrations in Lake Champlain and Lake Memphremagog and improve water quality across the state. This legislation, as well as other clean water efforts, have strengthened cooperation among municipalities, regional planning commissions, and the



<sup>3</sup> Quebec/Vermont Working Group on Managing Lake Memphremagog and Its Environment, Final Report, page 24, 1993.

Department of Environmental Conservation in maintaining and implementing *Tactical Basin Plans*. The plans are guidance documents for the Agency of Natural Resources because they identify and prioritize the necessary actions to protect or restore specific bodies of water across each of the 15 planning basins in Vermont.

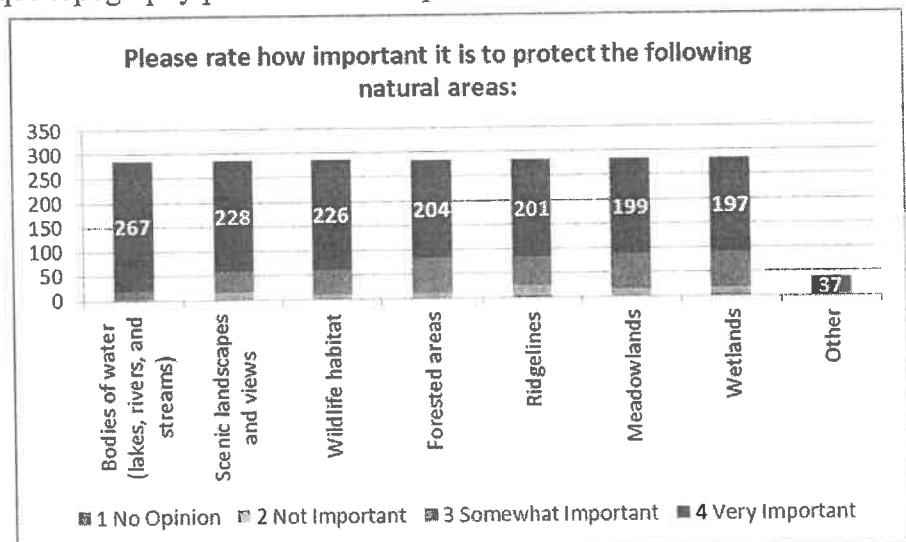
Most of Westmore is located in Basin 17, which encompasses 589 square miles of Lake Memphremagog drainage and the Tomifobia and Coaticook River watersheds. Basin Plan 17 attributes nearly half of phosphorus runoff – which can contribute to occasional cyanobacteria or blue-green algae blooms – to agricultural lands (46%), followed by developed lands (21%), river instability (20%), and forest lands and wetlands (12%). Collectively, the Plan attributes 52.6 metric tons of phosphorus per year into the basin. In September 2017, the US. Environmental Protection Agency set new phosphorus limits (also known as Total Maximum Daily Load – TMDL) for Lake Memphremagog. The new TMDL target is 40.6 metric tons/year, representing a 23% reduction in phosphorus pollution. To achieve this target, the Tactical Basin Plan identifies specific reduction measures in each municipality. Watershed sampling on Willoughby and on Long Pond show statistically significant increasing phosphorus trends, and Willoughby is rated as “fair” for shoreland disturbance due to higher levels of development along its shoreline. The watershed projects for Westmore identified below can address both the concerning trends on Willoughby and Long Pond, and to help meet Lake Memphremagog phosphorus loading reduction targets set in the TMDL:

Project description	Project Type	Status
Culvert replacements on 5A: Dorin Brook, Myers Brook, Wells Brook, and Schoolhouse Brook	Road Project	Final Design
Road Erosion Inventory and Capital Budget*	Inventory	Ongoing
LakeWise Master Plan for Willoughby Lake	Lake Shoreland Identification	Ongoing
Willoughby Lake North Beach tree plantings	Lake Shoreland	Final Design

\*More information on the road erosion inventory is in the Transportation Section of this plan.

### **High Elevation Forest Cover**

Non-point runoff due to deforestation of an acre or more in high elevation areas is a key concern to Westmore, where the unique topography places the developed core of the community in a “bowl” surrounded by ridgelines and a network of rivers and streams that drain into Westmore’s lakes and ponds. Impacts from the storms of 2011 in neighboring communities only reinforce this concern. Subsequent microbursts and storms from deforested ridgelines are likely to produce flooding and damage to



downstream properties and siltage in Westmore's most cherished bodies of water, including Willoughby Lake.

Many of the same problems and corrective measure apply to other surface waters in Westmore as well. The town has a real opportunity to develop these lands in a way to prevent problems in the future and maintain the water quality in town. If the town of Westmore is serious about maintaining and improving water quality, the question of non-point pollution must be addressed.

When asked to rank the protection of Westmore's natural resources, survey respondents identified protection of Westmore's bodies of water as being most important (267 responses). Protecting surface waters from sedimentation and runoff was also ranked as most important.

### **Lakes and Ponds**

Lake front development has traditionally had second homes that add taxes to the community while not requiring a lot of public services. Even though this trend has begun to change somewhat the Planning Commission generally supports the development of lakeshore property, keeping in mind that increased impervious coverage decreases the ability of the land to absorb run-off.

Traditionally camps were built close to the water's edge to afford the best view from the living room and front porch. The camps were used only two or three weeks a year and the number of people staying at a camp were usually few. The dishes were done by hand, laundry done in the sink and taking a bath meant jumping in the lake. The toilet consisted of an outhouse set back from the water's edge.

Life around some of Westmore's bodies of water is different today. People use their camps for much longer periods and some have been converted to year-round homes. Many camps now have showers, dishwashers, washing machines, and flush toilets. Where does all this "gray water" go? When these camps were built, they had such infrequent use that people were not very concerned about their impact on water quality. But today things have changed - perhaps significantly. Since most of these camps are built on wet soils and close to the lake, when dish water is drained out of the sink it ends up in the lake. Granted, the gray water may initially drain into a sand filter or "dry well" but this treatment is superficial at best. The "black water" may go to a sealed holding tank. If properly managed and cleaned out this system could be very effective. Ensuring that this happens is an administrative nightmare.

The question is "so what if this gray and black water enters the lake?" The answer has several parts. As the use of the lake has increased, so has the amount of gray water and other pollution. A lake can naturally treat a certain amount of pollution but, if the amount surpasses the lake's natural ability to treat the waste, it starts to accumulate in the sediments and water column. Willoughby Lake is a cold water lake, which means it has a much harder time breaking down soap and other pollution. Once a particular concentration of pollution is reached, large algae blooms will occur and the overall water quality will diminish rapidly. This is already occurring on the back side of Willoughby. And since it takes a long time to build up, it will also take a long time to correct the problem once it has occurred. Run-off contributes to increased phosphorus levels which allows the establishment of Eurasian Milfoil, a problem already

experienced in Willoughby Lake. When the water quality goes down, so may tourism and associated revenues.

Large amounts of algae, a small plant which needs phosphorus to grow, in the water decreases the oxygen available for fish, warms the temperature and is an indicator of possible other pollution. Contaminating the lake with untreated septage is not only distasteful it may add dangerous virus and pathogens to the water -- a real public health concern.

There are ways to prevent the degradation of water quality. It is clear that if strict measures are not adopted and enforced the bodies of water may end up polluted and containing a significant algae bloom, Eurasian Milfoil, or other nuisance aquatic growth.

Preventative measures include ensuring that no black water and very little gray water enter the lakes, use of biodegradable soaps, establishing and/or maintaining vegetative buffer strips along the shore to help prevent run-off and erosion, setting the camps back from the water's edge to allow a greater filtering distance before any pollution that does occur enters the lake, and requiring that all year round or enlarged camps have properly designed and installed septic systems.

### **Buffer Strips**

Buffer strips are areas of natural, undisturbed vegetation along the shoreline of lakes, ponds, and streams. They provide many functions including providing wildlife habitat, a visual screen from the water, and reducing the run-off and nutrients that enter the water. This works by slowing down run-off, allowing time for water to soak into the ground and the nutrients to be absorbed into the soil and plants.

The size of the buffer strip is determined by its intended function and the topography of the shoreline. Any sized buffer strip, even a few feet, is better than no buffer at all. Certain wildlife species such as black bear need large strips (perhaps as large as 1 mile), other species such as most birds need only 25 to 50 feet. The size of the buffer strip required to effectively eliminate nutrients from run-off is debated. Most sources suggest 50 - 350 feet. The Vermont guidelines for acceptable logging practices (AMPs) suggest a minimum of 50 feet on areas with slopes less than ten percent and an additional 20 feet for each additional 10 percent slope.<sup>4</sup> In 2000, Westmore amended its zoning bylaw to require natural vegetation buffers for lots on Willoughby Lake, Bald Hill Pond, Long Pond, Job's Pond, and all other ponds, lakes, rivers, and year-round streams. In 2014, Vermont's Shoreland Protection Act established a permitting and regulatory process for lands within 250 feet of the mean water level of lakes and ponds greater than 10 acres. In Westmore, this regulatory jurisdiction includes Bald Hill Pond, Brown Pond, Jobs Pond, Long Pond, and Willoughby Lake. The new State buffer management standards supersede the local zoning standards, but Westmore's zoning regulations may continue to specify what types – and what intensities – of development are appropriate for the shorelands.

### **Undeveloped Lakeshore**

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<sup>4</sup> Vermont Department of Forest, Parks and Recreation, Acceptable Management Practices for Maintaining Water Quality on Logging Jobs in Vermont ([http://fpr.vermont.gov/forest/vermonts\\_forests/amps](http://fpr.vermont.gov/forest/vermonts_forests/amps)) , Accessed February 2018

In 1992 the Northeastern Vermont Development Association completed a resource inventory of the undeveloped lakeshore in northern Vermont. The study identified undeveloped tracts of lakeshore on lakes over 10 acres. An “undeveloped tract” was defined as having a minimum of 1000 feet of shore frontage with a depth of 250 horizontal feet with no human structures or 2-wheel drive roads.

Six lakes and ponds are in the Town of Westmore. They have 97,649 feet of shoreline of which 46.6% (45,552 feet) is undeveloped. Westmore ranks second in Orleans County (after Newport City) for the amount of shoreline and third for having the most undeveloped lake shoreline (after Derby and Morgan). See the attached map for location of the undeveloped portions.

Undeveloped shoreline contains many valuable attributes including critical wildlife habitat, it helps maintain high water quality and enhances recreation opportunities.

Lake/Pond Name	Total Shore Length (ft)	Undeveloped Length (ft)	Percent Undeveloped	Public Ownership
Willoughby	57,795	19,853	34%	Partial
Long	12,250	5,912	48%	Access Only
Bald Hill	10,232	7,143	70%	Partial
Jobs	7,111	4,468	63%	Access Only
Brown	6,742	4,657	69%	Access Only
Mud	3,519	3,519	100%	No

### **Ice Fishing**

As more people use the lakes in the wintertime for ice fishing, skiing and snowmobiling, there is growing concern over the impact on water quality due to human waste, trash, and oil/gas pollution.

### **ISSUES/CONCERNS**

1. In order to decrease the amount of siltation caused by building construction, logging, and farming, erosion control standards were included in the 2000 revision to the Westmore Zoning Bylaw and should continue to be enforced.
2. The lakes and ponds should be treated in two categories: one to remain essentially unchanged (Bald Hill, Brown, Mud, Jobs and Long Ponds) and the other to address concerns caused by development around the shore (Willoughby Lake).
3. In order to protect the water quality, wilderness character, wildlife habitat, and rare plant species, undisturbed buffer strips should be maintained or/established around the undeveloped ponds and streams. The Lake Association and Planning Commission should work together to encourage reestablishment of native vegetation along the lakes and ponds.
4. In order to alleviate unnecessary burdens on the camp owners, protect the water quality, and streamline the permit process, revisions to the zoning by-law were adopted in 2000. Revisions include:

- a. requiring a properly engineered and installed septic system, as enforced through state regulations, before a camp can be significantly enlarged or used for year-round occupancy
  - b. restricting additions or expansion of existing structures from getting closer to the water's edge than where they already are
  - c. enacting appropriate setbacks from the water for all new structures
  - d. creating vegetative buffer strips along the lakes and streams
5. Logging and agricultural practices in Vermont are addressed in the Acceptable Management Practices guidelines defined by the Commissioner of Forests and Parks and the Commissioner of Agriculture. Presently local municipalities are not authorized to enact any stricter regulations on logging or agricultural practices. However, they can adopt regulations that reflect the same standards that are contained within the AMP guidelines. Due to increasing concerns about the effect of logging and agriculture on water quality, the AMPs should be carefully reviewed and considered.
6. The people who own camps around a lake have a vested interest in maintaining the high level of water quality in the lake. The Town works to ensure the proper installation and monitoring of septic tanks, buffer strips and the like.
7. When natural land cover is removed (i.e. clear-cuts and logging), or roads are built with improper drainage, there is an increased threat of flash floods which might destroy property, increase erosion, and reduce the amount of water being "recharged" into the ground water.

## **RECOMMENDED ACTIONS**

1. Erosion control standards should continue to be enforced.
2. Comply with the current zoning by-law to address the stated concerns about the protection of water quality.
3. Refer to the standards set forth in the Acceptable Management Practices for Maintaining Water Quality on Logging Jobs and Required Agricultural Practice Regulations.
4. Work closely with the lake associations to encourage the maintenance of water quality in the lakes.
5. The Lake Association and Planning Commission should work together to encourage native vegetation along the lakes and ponds.
6. Assemble and have available information on existing laws regarding use of the lakes in the winter.
7. Inform the Water Resources Board about the growing concern over the use of the lakes in the winter.
8. Development that would significantly contribute to runoff should be prohibited.
9. Commercial and residential development with a density greater than one single-family dwelling per 10 acres should be prohibited in high elevation areas.



## 7. FLOOD RESILIENCE

### **Existing Conditions**

The majority of Westmore is located in the Barton River watershed, which drains north into the Lake Memphremagog basin, an area that includes more than 3,400 lakes and ponds in Vermont and Quebec, the largest of which is Willoughby Lake. The Barton River watershed, which includes the Willoughby River subwatershed, flows north into the southernmost end of Lake Memphremagog's South Bay. The Barton River is 22 miles long and its watershed drains 174 square miles. The principal tributary of the Barton River, the Willoughby River, originates at Willoughby Lake. The northern portion of Westmore that borders Charleston is located in the Clyde River watershed, which also drains into Lake Memphremagog in Newport City.

The remaining southern portion of Westmore, bordered by Sutton and Newark, drain into the Passumpsic River basin. This area contains tributaries of the West Branch of the Passumpsic, which drain southeast into Newark, East Haven, Burke, and on to Lyndon.

Westmore has a limited history of flooding, and no properties have been identified as repetitive loss structures under FEMA. After Tropical Storm Irene, the town did receive public assistance for road damage along Hinton Hill, Long Pond, and LaCross Roads. These roads contain segments with steep slopes and will be subject to stormwater management conditions under the Municipal Roads General Permit, which is discussed in greater depth in the Transportation Section. Westmore has many areas with steep slopes in upper watershed areas where minimal alteration of vegetative cover through logging or changing drainage patterns through building roads or other large-scale development and deforestation may significantly increase the likelihood of flash floods. Although flash floods may not seem like a large problem, their potential should be recognized and monitored.

### **Floodplains**

Floodplains are low-lying areas adjacent to a river channel that become inundated as floodwaters rise up and spill out over a river bank. They provide an important ecological function by storing and conveying floodwaters, reducing downstream flood velocities, and mitigating riverbank erosion. Floodplains also help to protect water quality by filtering nutrients and impurities from runoff, processing organic wastes, and moderating temperature fluctuations.<sup>5</sup>

Westmore's floodplains are depicted on a FEMA flood hazard boundary map that was created in 1976. This map depicts the Special Flood Hazard areas, which are floodplains that would likely become inundated during a significant flood known as a "base flood." The base flood is often referred to as the "100-year flood." Westmore's map is not accompanied by any insurance studies or base flood elevations, which would indicate how high the water would rise in a 100-year flood event. Areas subject to inundation include Westmore's lakes and ponds, including Willoughby, as well as segments on Willoughby Lake Road and Route 5A.

Unfortunately, the term "100-year flood" is misleading, because it creates the false impression that a flood of that magnitude will only occur once a century. What the term really means is that the base flood has a 1% chance of flooding in ANY given year. With a one percent annual

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<sup>5</sup> Floodplain Management Requirements A Study Guide and Desk Reference for Local Officials, FEMA 2005

chance, a structure in the Special Flood Hazard Area has more than a one-in-four chance of being affected by a flood during a thirty-year mortgage. By comparison the same structure has less than a one-in-ten chance of being affected by fire over the same mortgage.<sup>6</sup> Westmore's FIRM is a paper map. Its age and lack of detail make interpretation difficult.

### **River Corridors**

About two-thirds of Vermont's flood-related losses occur outside of mapped floodplains, and this reveals the fundamental limitations of the FEMA FIRMs: A mapped floodplain makes the dangerous assumption that the river channel is static, that the river bends will never shift up or down valley, that the river channel will never move laterally, or that river beds will never scour down or build up.

In reality, river channels are constantly undergoing some physical adjustment process. This might be gradual, resulting in gradual stream bank erosion or sediment deposit – or it might be sudden and dramatic, resulting a stream bank collapse. The losses experienced during the May 2011 storms and Tropical Storm Irene were most often related to the latter. In fact, this type of flood-related damage occurs frequently in Vermont, due in part to the state's mountainous terrain.

Land near stream banks are particularly vulnerable to erosion damage by flash flooding, bank collapse, and stream channel dynamics. The Vermont Department of Environmental Conservation, Agency of Natural Resources, has identified river corridors, which consist of the minimum area adjacent to a river that is required to accommodate the dimensions, slope, planform, and buffer of the naturally stable channel and that is necessary for the natural maintenance or natural restoration of a dynamic equilibrium condition. In other words, the river corridor provides “wiggle room” for a stream as its channel changes over time. Keeping development out of the river corridors therefore reduces vulnerability to erosion. The statewide river corridors map identifies the Willoughby River and Mill Brook as river corridors. For all other streams in Westmore, a 50-foot natural vegetation buffer is considered sufficient measure for streambank stabilization.

### **Uplands and Wetlands**

As previously noted, Westmore's mountainous terrain can contribute to flash flooding. Limiting clearing of upland slopes will help to attenuate flood flows and reduce stormwater runoff. Proper management of Westmore's forest cover, particularly in areas with steep slopes and high elevations (where headwaters are located) is therefore critical. Conservation easements, enrollment in the Current Use Program, and encouragement of best management forestry practices will protect existing forested cover.

Wetlands also have the capacity to retain significant amounts of water. The State of Vermont regulates activities in and adjacent to wetlands. These rules apply to the wetlands and associated buffer zones within 100 feet of Class 1 wetlands, and 50 feet of Class II wetlands. Any activity in a Class I or II wetland requires a state permit. Westmore contains 308 acres of Class 2 wetlands throughout the town, and there is a large wetland complex to the north of Willoughby Lake which also provides habitat for rare, threatened, or endangered species.

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<sup>6</sup> [www.floodready.Vermont.gov](http://www.floodready.Vermont.gov)

### **Emergency Relief and Assistance Fund**

The Town has received nearly \$34,000 in public assistance for two federally-declared disasters – to repair roads in the aftermath of Tropical Storm Irene and to remove debris following a severe ice storm in 2013. When a community requires public assistance to repair infrastructure, FEMA funds generally cover 75% of the loss. Prior to 2014, the State’s Emergency Relief and Assistance Fund (ERAF) has provided half of the matching funds (about 12.5%), and the town has assumed the remainder of the cost. In October 2014, however, new legislation tied the level of ERAF funding to specific local initiatives to reduce flood-related risks and prepare for emergencies. ERAF will now contribute half of the required match only if the town has taken all the following steps to reduce flood damage. Otherwise, the level of State funding will be reduced to 30% of the remaining match, which will usually be about 7.5% of the total cost:

1. Adopt the most current Town Road and Bridge Standards (which can be found in the *VTrans Orange Book: Handbook for Local Officials*).
2. Adopt flood regulations that meet the minimum standards for enrollment in the National Flood Insurance Program (NFIP)
3. Maintain a Local Emergency Operations Plan (adopt annually after town meeting and submit before May 1)
4. Adopt a FEMA-approved Local Hazard Mitigation Plan.

Currently, Westmore only meets requirement #1.

### **National Flood Insurance Program (NFIP)**

The primary benefit of joining the NFIP (other than meeting the ERAF requirement) is enabling Westmore residents to obtain flood insurance at more affordable rates. Federally-backed lending institutions require flood insurance on any mortgage in the Special Flood Hazard Area, regardless of whether the Town participates in the National Flood Insurance Program. This could therefore be very helpful to property owners who are attempting to refinance or sell flood-prone properties. Property owners outside of the Special Flood Hazard Area also would be able to purchase flood insurance, and at preferred risk rates.

In order to participate, the Town would have to adopt regulations that meet FEMA’s minimum standards (found in CFR44), and the development standards would have to be enforced in the Special Flood Hazard Areas shown on the FEMA map. In fact, the town’s zoning bylaws already regulate development in these areas. Unfortunately, the town of Westmore did not apply for participation in the NFIP. Because the flood hazard regulations were adopted several years ago, it is unlikely that they would be approved for inclusion in the NFIP. If the town wishes to join the NFIP, the planning commission will have to amend the flood hazard regulations. The existing regulations are close to meeting minimum FEMA standards, so the changes would probably not be substantive.

The legislative changes to ERAF funding propose to address the limitations of the National Flood Insurance Program by providing an incentive: Under ERAF, the Town may receive an increased state match for federally declared losses, if the town adopts flood regulations that exceeds the minimum standards of the NFIP. These above-and-beyond standards include

prohibiting most forms of new development in the river corridor, prohibiting most forms of new development in the Special Flood Hazard Area, and requiring structures in the Special Flood Hazard Areas that are more than 50% damaged to be elevated to at least one foot above the base flood elevation. All of these measures should be explored as way to minimize taxpayer expense in the event of future flood-related losses.

### **Local Emergency Operations Plan**

The Local Emergency Operations Plan (LEOP) establishes lines of responsibilities in the critical hours immediately following a disaster. This information is particularly important in coordinating responses through mutual aid towns, and regional and state entities. The LEOP is updated and adopted annually after Town Meeting Day. NVDA regularly assist towns with preparing the LEOP. Westmore has a draft LEOP, but local officials will need to complete a training before it can be adopted.

### **Local Hazard Mitigation Plan**

A local hazard mitigation plan prioritizes hazard issues and details next steps for addressing them. It is required by FEMA to receive grant funding to reduce or eliminate hazards such as moving or elevating structures, acquiring repetitive loss structures, or purchasing emergency generators. A local hazard mitigation plan was developed for Westmore, but it was never adopted by the town. Since that time, the FEMA approval process has become more rigorous. The State of Vermont Emergency Management and FEMA regularly make funds available for local hazard mitigation planning, so technical assistance may be available if Westmore is ready to develop and adopt a plan.

## **ISSUES/CONCERNS**

- The town needs to mitigate the risk of flood hazards and associated expense to tax payers in the most cost-effective manner possible
- Westmore officials need to ensure the town and its facilities are prepared to meet the demands of the next flood.
- The town needs to explore ways to receive the maximum amount of financial assistance for repairing flood-damaged roads, bridges, and other infrastructure.

## **RECOMMENDED ACTIONS**

- Identify and protect Westmore's natural flood protection assets, including floodplains, river corridors, other lands adjacent to streams, wetlands, and upland forested cover.
- Areas with great potential for flash floods should be identified and residents be made aware of the potential hazards.
- Adopt flood hazard regulations that at a minimum, ensure eligibility for flood insurance through the National Flood Insurance Program.
- Review and evaluate statewide river corridor information. Consider adopting regulations that will protect erosion prone areas from additional development and encroachment.
- Maintain and regularly update the Local Emergency Operations Plan.
- Continue to meet the VTrans Road and Bridge standards. Participate in regional road foreman trainings and Transportation Advisory Committee meetings to stay abreast of flood resilience measures for the Town's roads and bridges.

- Continue to update the Town's transportation infrastructure information in the Vermont Online Bridge and Culvert Inventory Tool.
- Replace undersized and failing culverts.
- Develop a Local Hazard Mitigation Plan.

## 8. AGRICULTURE

Westmore's active farms are concentrated in the northeast and southwest quadrants of the town. These farms total approximately 2,644 acres, with active dairy farms consisting of approximately 1,497 acres. Less than half the land is in use as pasture and cropland, with the remainder consisting of woodland. In addition, these farms borrow or lease land from others for hay or pasture in Westmore. These 2,644 acres represent 11.9% of Westmore's total land area of 22,092.8 acres. For comparison, Westmore's lakes and ponds occupy 1,926 acres. Occasionally farmers also use farmland in Barton and Brownington.

Three of the local farms are participants in the Vermont Current Use Tax Abatement Program. As of January 2018, Westmore had a total of 11,129 acres in the Current Use Program, however, only 835 acres were enrolled as farmland. The town was reimbursed \$39,552 dollars in taxes on all land in the Program in 2017.

The Northeast Kingdom has more farms per capita than the Vermont average, and significantly more than the national average.<sup>7</sup> (Source: Northeast Kingdom Food Systems Plan). According to the 2012 Census of Agriculture, Orleans County remains the most agricultural county in the Northeast Kingdom, and one of the most agricultural counties in the state (sixth in terms of number of farm operations, fourth in terms of total acreage). As of the most recent Census of Agriculture, there are 638 farm operations, totalling an estimated 132,240 acres, or 11% of the farm acreage in the state. Total farm operations are up from the 2007 Census, from 635 to 638 farms, while total acreage is down slightly from 132,308 acres. On a whole, the average acreage of a farm operation has decreased in recent years, possibly because dairy farming increasingly accounts for a smaller percentage of the total number of farms. As of the latest Agricultural Census, "very small farms" (fewer than 50 acres) now account for 35% of all farms in the region, up from 31% in 2007 and 28% in 2002.

In 2012, the farms in Orleans County produced about 13% of the state's agricultural output (as measured in terms of market value of all agricultural products sold), representing a very slight increase from the previous Census.

According to the most current Agricultural Census, the average age of the principal farm operator in Orleans County is 57, up from 55.4 in 2007. This is also significantly higher than the county median age of the general population (43.7). The continued aging trend among the region's farming population creates uncertainty about the future. A 2016 American Farmland Trust study found the vast majority of Vermont farmers ages 65 and older do not have a younger

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<sup>7</sup> Center for an Agricultural Economy, and the Northeastern Vermont Development Association (2016). Regional Food System Plan for Vermont's Northeast Kingdom

farmer (under age 45) working alongside them. While this does not necessarily mean that these senior farmers do not have a succession plan, the future of many of these farms is uncertain. In fact, of the 173 farms in Orleans County with a principal operator age 65 or older, only 13 were found to have a potential successor. Technical services, outreach, and public policy must be better aligned to facilitate succession planning.

Several of Westmore's farmers are the third generation on their farms. They all see themselves remaining in farming, but want to retain their option to sell land as needed for capitalizing their operations or for retirement. Some farm owners expressed their intent to sell residential lots. Some also are interested in selling their development rights to ensure that their land remains in agricultural use.

The Northeast Kingdom has seen a renaissance in agriculture in recent years, and the viability of farming may have been enhanced by the growth in agricultural and value-added processing opportunities in the region. In 2016, Northeastern Vermont Development Association and the Center for an Agricultural Economy published an extensive update to the Regional Food System Plan for the Northeast Kingdom. The purpose of this plan is to drive the development of new and more diverse agricultural activity within the region's economy and to develop a more comprehensive strategy to stimulate the food system sector for the Northeast Kingdom. The plan contains multiple indices for tracking progress and development (<http://www.nvda.net/agriculture.php>)

While agriculture is an important part of Westmore's cultural heritage, and it also accounts for employment activity in the region. An independent report commissioned by NVDA found that the region's agricultural processing sector accounts for 700 jobs in the Northeast Kingdom, which pay, on average, more than \$30,000 a year.

## **ISSUES/CONCERNS**

1. In general, Westmore has soil conditions that support sound agricultural practices.
2. Retain the quality of life, scenic attributes, diversity of wildlife, and the environmental harmony and beauty that are the products of responsible farming and forestry.
3. Refer property owners to the appropriate agencies for information on various options for subdividing and developing land, estate planning, the Current Use Program, etc.
4. Listing land at its current use instead of its "highest and best use" is important for farmers and would help reduce high property taxes which make farming more difficult and jeopardizes the long term viability of family farms.
5. Many farmers depend on leased land to sustain their farms. Changing access and fees for using this land make it difficult for the farmers to do long term financial planning or investments into the land.
6. Farmers and owners of agricultural lands need to learn about the different conservation options for their land.

## **RECOMMENDED ACTIONS**

1. Actively support and encourage the maintenance of the State of Vermont Use Value

#### Appraisal Program (Current Use).

2. Assist and support landowners seeking ways to keep land open while remaining economically viable.
3. Explore local tax alternatives that would help farmers afford to maintain their productive, open land. A committee should be established to look into a local tax stabilization program for the farming community.
4. Follow closely the alternatives brought forward in the Legislature regarding property tax reform; monitor the impact they might have on the town.
5. Recommendations might be developed for applicants seeking to convert active farmland to non-agricultural uses. The process could encourage the siting of buildings, roads and other structures to have the least significant impact to agriculture. An example might be to locate a proposed house along the edge of a field instead of in the middle thus preserving the field's agricultural potential.
6. Sponsor workshops and buy written materials on land conservation techniques and creative ways to subdivide and/or develop land that minimize the impact on the agricultural resources, estate planning, the Current Use program, etc.
7. Work with non-agricultural landowners to stabilize lease agreements and conserve their lands which are vital to the farming community.
8. In order to work on conservation projects that are important at the local level, residents should consider establishing a local land trust such as the Newark Trust Fund or becoming actively involved with a regional land trust such as the Passumpsic Valley Land Trust in St. Johnsbury.
9. The Town should consider setting up a conservation trust fund so the mechanism would exist to raise money through a bond vote or by individual gifts to be used for local conservation projects.
10. Encourage ongoing education about diversifying farming.

## 9. FORESTS

Forest land plays a critical role in supporting the local and regional timber economy, recreation, and hunting.

Timber harvesting is a traditional way of life in Westmore. Most of the land in town is owned by large landowners and harvesting timber has gone on for several hundred years.

Forests also play an important role in maintaining a healthy local and global environment. They enhance air and water quality, provide important habitat for wildlife, and supply quiet places to walk. Forests are also critically important in maintaining the biosphere and helping to slow down the trend toward global climate change. Westmore's forests play an important role both locally and globally. They are more than trees growing in the woods.

### **Mountaintops/Ridgelines**

Due to their unique ecosystems and the potential for detrimental visual impacts by development, the ridgelines and mountaintops are considered important areas of town and should be protected from future development.

The Willoughby Lake Area has been designated a Registered Natural Landmark under provisions of the Historic Sites Act of 1935. According to the US Department of the Interior, this site possesses “exceptional value in illustrating the natural history of the United States.” The area, which includes the Willoughby Cliffs, is also surrounded by unique topography, which makes maintaining the integrity of Westmore’s ridgelines especially important. The core of the town –including the Willoughby Lake Area – are virtually enclosed on all sides by ridgelines, effectively placing the center of the community in a “bowl”. All of these ridgelines, which are depicted on the attached Viewshed Map and accompanying photos, are highly visible from the lower elevations, leaving the town particularly vulnerable to adverse impacts of ridgeline development. Westmore maintains a vast network of recreational and hiking trails that traverse these ridgelines and afford access to a multitude of spectacular views. This asset is at the core of the community’s identity as a tourism destination and is critical to the long-term economic health of the community. The community’s ridgelines therefore must be treated as a whole, rather than a series of viewsheds.

### **ISSUES/CONCERNS**

1. Clear-cutting is an ongoing issue. There is concern about the natural and social implications of such a practice.
2. There is also concern about the rate at which the forest is being harvested especially using whole tree chippers. There is a perceived detrimental impact on water quality, biological diversity, soil erosion and the visual quality of the area. To ensure sustainable forest harvesting techniques are used, individual landowners should be encouraged to work with a knowledgeable forester to draw up a forestry plan.
3. In order to stabilize the tax burden on town residents by reducing the need for future town services and maintain large tracts of forest land required by the timber industry, new development would be encouraged to take place along existing town roads.
4. There are creative ways to develop land with minimal impact on forest land such as encouraging creative development ideas, encouraging sensible land subdivision, and placing year-round homes on town roads.
5. Westmore has unique topography with many beautiful ridgelines contrasting with the valleys, lakes, and ponds. These attributes are often not fully recognized until they are altered. The ridgelines in town must be preserved and protected when planning any new development. Any development on the ridgelines should not
  - a. Create a visual intrusion into the viewshed as viewed from any public right of way, body of water, or from any vantage point in the National Natural Landmark designation area.
  - b. Result in clear-cutting of core habitat forested area, migratory routes and wildlife travel corridors as mapped by the state or the municipality or fragment large tracts of forested land. Trees of 10” to 12” in diameter shall be preserved.



- c. Create a threat to Westmore wildlife and natural communities, including, but not limited to plants, birds, reptiles, and aquatic life.
  - d. Traverse or impede travel along known hiking trails or create visual intrusion along hiking trails.
6. Any development on or near ridgelines should employ landscaping screening techniques to prevent undue adverse impact to Westmore's scenic ridgelines, as viewed from any public right of way, body of water, known hiking trails, or any vantage point in the National Natural Landmark Area.
  7. Westmore should work with neighboring municipalities to help protect their ridgelines that would a significant environmental or visual impact on Westmore.
  8. As with agricultural lands, taxes on forest land often exceed the ability of that land to generate income. Therefore a statewide Use Value Appraisal Program was set up to assist landowners maintain large tracts of forest land.

## **RECOMMENDED ACTIONS**

1. The Planning Commission encourages individual landowners to consider working with a knowledgeable forester to draw up a forestry plan. Such plans should consider sustainable harvesting techniques, timber stand mix, and continuous renewal of the forest resource.
2. Encourage new development to use creative ways to develop land with the least impact on the resource such as encouraging creative land development.
3. Sponsor workshops and buy written materials on land conservation techniques and creative ways to subdivide and/or develop land that minimize the impact on the forest resources, explain estate planning and the Current Use program, etc.
4. Actively support and encourage the maintenance of the State of Vermont Use Value Appraisal Program (Current Use).
5. Assist and support landowners seeking ways to keep land open while remaining economically viable.
6. Amend bylaws with regard to development on the ridgelines.

## **10. NATURAL AREAS, WETLANDS AND WILDLIFE**

### **Natural Heritage Sites**

The Vermont Natural Heritage Program completed an inventory of the natural heritage sites within Westmore. Although the study was not necessarily all inclusive, meaning there may be sites still not identified, it does supply a good first step at locating areas with special natural features such as rare and endangered plants and special wildlife habitat. The intent of the inventory is for educational purposes so landowners are aware of what they have on their land and may take actions to preserve it. Working with the landowners to protect these sites is a priority for the Commission. The attached maps give a general idea of the location of the sites: Natural Resource Constraints, Forest Blocks, Habitat Connectors, and Wildlife Habitat Blocks.

Identifying areas that are important to wildlife (ie. deer yards, beech stands, spruce/fir forests) is needed. This information would be used to encourage landowners to maintain the areas most important to wildlife. It could also be used in an advisory fashion by the Zoning Administrator and Zoning board of Adjustment.

### **Wetlands**

Based on the National Wetland Inventory Maps, Westmore has 262 acres of wetlands mostly of 2-3 acres in size or larger. These maps are not conclusive, however, and there are many smaller areas that have not been mapped by either the federal government or the state. Wetlands perform a variety of functions, which vary from one wetland to another, but which together combine to form an integrated system of environmental benefits. These include, but are not limited to, water quality protection, flood control, shoreline stabilization, contributions to groundwater and streamflows, and wildlife and fisheries habitat. In recognition of the importance wetlands play in the environment, they are protected by the State of Vermont Wetland Rules, and there are substantial penalties for not adequately protecting them. Wetlands are an important part of Westmore and should be preserved and enhanced.

Maintaining critical wetland areas is important to the town, and must be diligently pursued to avoid destruction of or damage to wetlands and the imposition of penalties by the state.

### **Deer Yards**

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

The availability of quality wintering areas is the limiting factor for whitetail deer in most of Vermont. Since only 6 percent of Vermont is considered deer wintering areas, the State of Vermont has made protection of these areas a priority. Considering the economic contribution and the important place that deer hunting has in Vermonters' traditional lifestyle, the priority is state-wide understandable. These lands receive more scrutiny by State agencies when development is proposed on them. The State goal of protecting deer yards may be good, but State agencies should consider the overall impact on the local towns and landowners before making any decisions.

According to the Vermont Department of Fish and Wildlife maps, Westmore has two significant deer yards. One is at the northeast end of Willoughby Lake behind Route 5A . The other deer yard is between the Mill Brook and the Town Hall Road.

### **Habitat Blocks and Connectivity**

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

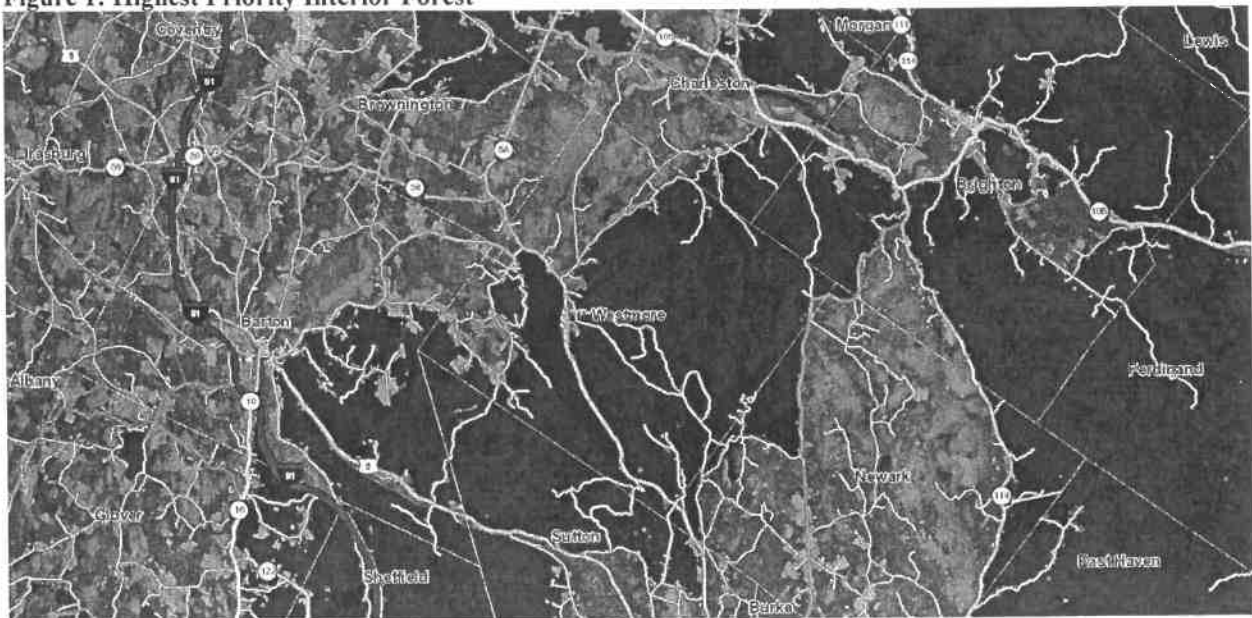
A key component of this work involved the identification and mapping of large unfragmented forest blocks by the Department of Fish & Wildlife and the Vermont Land Trust, which can be viewed on the Agency of Natural Resources's “Biofinder” mapping tool.

(<http://anr.vermont.gov/maps/biofinder>) Forest blocks larger than 20 acres are mapped statewide, but are identified generally as “habitat blocks”. Although smaller areas may support some biological diversity and connectivity, such areas provide little interior forest habitat.

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

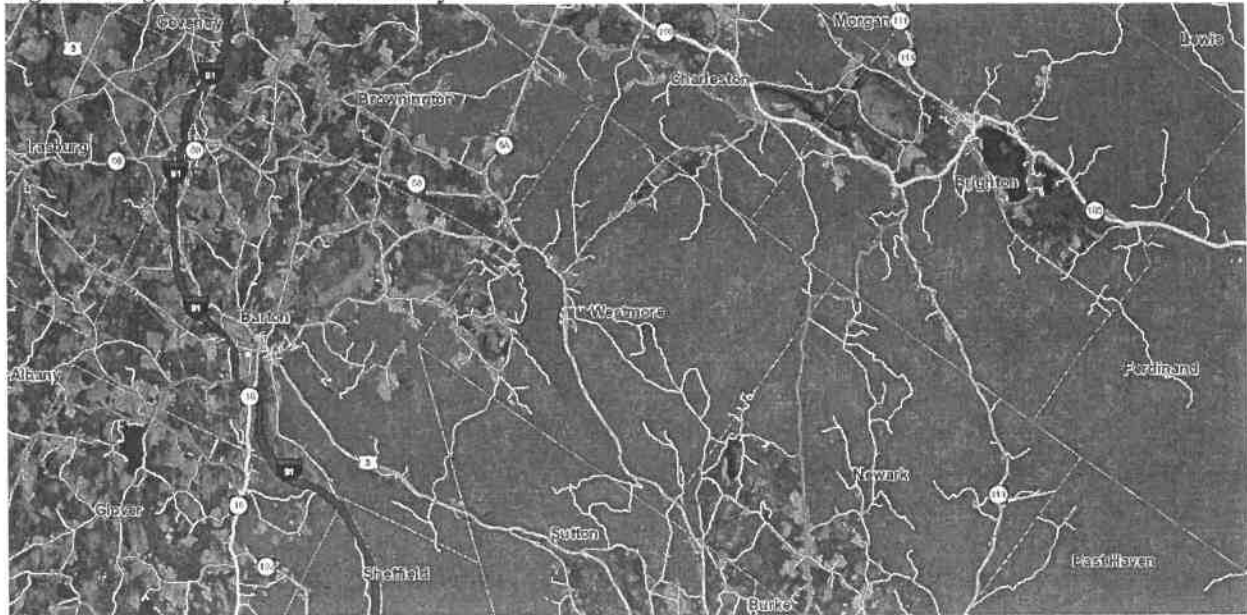
**Highest priority interior forest blocks (Figure 1):** Areas with high-quality interior, unfragmented core forest cover (i.e. land that is more than 100 meters from the non-forest boundary).

**Figure 1: Highest Priority Interior Forest**



**Highest quality connectivity blocks (Figure 2):** Land or water that function as “stepping stones” between core forest, as well as riparian habitat, or strips of forest cover between developed areas.

**Figure 2: Highest Priority Connectivity**



When viewed together, it becomes apparent that Westmore's forested resources support critical wildlife movement to the east toward Essex County, through Newark, Charleston, and Morgan, as well as north-south movement through the eastern portion of the town.

## **ISSUES/CONCERNS**

1. A local pool of money could be considered to be used as a local match when trying to obtain public conservation money.
2. The availability of resources on proper land management and conservation planning should be increased for residents.
3. Areas important to wildlife (ie. deer yards, beech stands, spruce/fir forests) need to be identified and mapped.

## **RECOMMENDED ACTIONS**

1. Encourage a local conservation fund which can be used for conservation projects. The fund could accept donations or municipal funds.
2. Hold workshops on natural resources management, estate planning, woodlot management, and land conservation techniques.
3. Contact local sports clubs to assist in identifying areas important to wildlife such as deer yards, beech stands, and spruce/fir forests.
4. Identify, with the assistance of the state, all protected wetlands in Westmore, and notify all landowners of the locations of wetlands on their properties, as well as restrictions that may apply to their use of the wetlands.
5. Prohibit commercial and large-scale residential development that would have undue

adverse impact on wildlife.

## **11. STATE LANDS**

The State of Vermont, Agency of Natural Resources manages approximately 3,000 acres within the Town of Westmore. This is about 11% of the town.

The State Forest is one of the crown jewels among State owned lands. It draws thousands of people to the town and supplies a steady flow of wood-fiber for the timber industry. As the regional economy turns more toward recreation/tourism and people see the loss of public access to private lands in other areas of the state, Willoughby State Forest will become even more important. The public lands provide a steady flow of wood fiber which employs loggers and can be used for manufacturing wood products and paper.

Enhancing tourism is another important contribution the public lands can do for the local economy. The recreation opportunities that the State provides should continue to be rustic and less developed allowing private sector to develop the more lucrative “developed” recreational opportunities such as cabins, RV parks, etc.

The District Office in St. Johnsbury revises the management plan for the State lands in Westmore every few years. This gives Westmore residents an opportunity to influence how these lands are managed.

The State lands are managed by the office in St. Johnsbury.

### **RECOMMENDED ACTIONS**

1. Remain involved with writing the long term management plan for the State lands to ensure Westmore’s interests are addressed.
2. Encourage frequent contact with the State officials to make our interests known.
3. Encourage the State officials to come to town and meet with local residents so our issues can be known.
4. Encourage the State to come up with a solution to the mooring problem at the south end of Willoughby Lake.

## **12. SCENIC FEATURES**

### **Landscape Forms**

Westmore’s uniqueness and appeal to visitors is in great part due to the beauty and serenity of the physical surroundings.

Visual contrasts in land forms provide some of the most beautiful landscapes. Westmore is endowed with many such visual pleasures such as the rolling countryside, farmland surrounding Willoughby Lake, the steep rocky cliffs of Hor, Pisgah, Wheeler, etc.

All “entrances” to Westmore are spectacular whether it be coming around the corner going east

on Route 16, and suddenly being on the shores of Willoughby or coming in over the heights of the other roads.

Westmore also has several ponds which give a similar landscape contrast as Willoughby Lake but on a smaller scale. These are less visible to the general public due to the remote location, but nonetheless, important to recognize.

The importance of scenic views in Westmore should not be underestimated as an important part of the overall character of the town.

### **RECOMMENDED ACTIONS**

1. The visual impact of proposed commercial or large residential developments must be considered prior to construction or granting the necessary permits.
2. The importance of the ridgelines in Westmore must be considered in the evaluating the appropriateness of any commercial or large residential development.

## **13. HISTORIC FEATURES**

The unique character of a community comes from both its natural and built environments. Westmore is blessed with rolling topography and fertile soils that provide for a variety of land uses. The community is also fortunate to have many historic and interesting buildings. These add to the “specialness” of the community as much as the scenery.

This plan’s intent is to work toward protecting both the natural and built environments. In order to do that, a comprehensive inventory and plan needs to be developed. The inventory should identify those areas with historic or cultural qualities such as cemeteries, monuments, buildings, old cellar holes, spiritual grounds, and the like. A partial list includes Balance Rock, Sliding Falls, the Long Pond Area, Sentinel Rock, Boulders, the School House, Cheney House and Fox Hall.

### **ISSUES/CONCERNS**

1. A comprehensive inventory and preservation plan needs to be developed to identify and protect historic and cultural features in town.
2. The Schoolhouse is a historic building and has been upgraded to serve as a new municipal building.

### **RECOMMENDED ACTIONS**

1. Develop an inventory and preservation plan for the historic and cultural features in town.
2. Encourage and assist property owners to list their structures on the historic registers.

## **14. EDUCATION**

Although Westmore does not have a school it does have a committed school board that makes every attempt to participate in district meetings and respond to citizen questions and concerns. Our elementary students may elect to attend a school of their choice. Westmore tuitions students

to Barton, Charleston, Orleans, Lyndonville, Newark, and West Burke. The Town of Westmore is responsible for tuition rates established by the school(s) chosen but no higher than district tuition.

Westmore, with three hundred fifty (350) full-time residents, spends over one million nine hundred sixty-five thousand (\$1.965M) dollars on education for our thirty-one (31) students K-12. This includes, but is not limited to, tuition payments(s) of approximately thirteen-thousand five hundred (\$13,500.00) dollars per elementary student and fifteen-thousand one-hundred per secondary school student, our contribution to the “sharing pool”. Under Act 60, Westmore was designated a “Gold Town”. As a “Gold Town” we were mandated, based on the Act 60 formula, to send tax dollars to support “receiving towns”. Westmore’s school tax obligation, before Act 60, was approximately three hundred twenty thousand (\$320,000.00) dollars. At present our school tax obligation has significantly increased, with \$1,579,500 going to support for receiving towns. This impacts all property owners. The legislature continues to study this issue and Westmore participates in the process.

Westmore, as a member of Orleans Central Supervisory Union, sends its students to Lake Region Union High School. We are most pleased with the high-quality educational experience our students receive within the district.

Home schooling is supported through financial assistance voted at Westmore’s Annual School Meeting. On average we have not had more than two or three home school students.

Westmore has been approached, informally, by other schools in the district requesting that Westmore consider tuitioning students to their respective schools. There has been some discussion (reduced tuition as an incentive) regarding sending students to a different school. This option will, we suspect, be the subject of more serious consideration as Act 60 further impacts Town taxpayers.

## **RECOMMENDED ACTIONS**

1. Encourage the parents of the town to be active in school decisions and to reconsider periodically, the possibilities of having a town school or forming an elementary union district with one of the two main schools our students attend, thus giving representation on said school board.
2. The Planning Commission will supply the School Board with information about population projections and other items as requested.

## **15. HOUSING**

Westmore has a dichotomy of housing available. The homes along the shoreline of the lakes are considerably more expensive and abundant than those in other parts of town. This impacts the Grand List but it makes the number of units available for lower income people more limited. Having a diversity of housing available is important to maintaining the character of the town.

### **What is Affordable?**

National and state housing policies agree that renters and homeowners should expend no more

than 30% of their gross income on housing costs. Lenders typically will not issue loans which require borrowers to expend more than 28% of their gross income for mortgage or rent payments, insurance, and taxes. Affordable housing is defined as housing costs (gross rent or mortgage plus taxes and insurance) that are below 30% of the median household income for the area.

“Affordability” is further defined by statute.

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

According to the ACS 5-Year Estimates, 2012-2016, the median household income for Orleans County is \$43,959, and \$41,071 for Westmore. The standard method for calculating affordability is using 80% of the county-wide median income as a low- to moderate guideline, or \$35,167. Of that amount, no more than 30% should be spent on housing -- \$10,550 annually \$879 monthly. Households with less than 50% of the county median are defined as very low income (\$21,980 or less), and those with less than 30 % are defined as extremely low income (\$13,188 or less).

In addition to monthly payments, the home buyer must have the savings necessary to cover the down payment plus purchase costs.

### **Renting**

Accessory dwelling units, which by law are treated as a permitted use of a single family owner-occupied dwelling, are one form of affordable housing in Westmore, and probably the most feasible solution for renters in Westmore. According to the 2010 Census, 17 (10.3%) of Westmore’s 165 occupied housing units are occupied by renters. This represents a decrease in the proportion of renter-occupied units from 21% in 2000. Median gross rent according to the ACS 5-Year Estimate, 2012-2019 is \$856. Assuming a household is paying the median rent, then a household income of more than \$2,853 a month would be necessary for the rent to be affordable.

### **Number of Households**

The way the population groups itself into households affects the demand for housing. Nationwide and within Vermont household size declined dramatically during the 1970s, and has continued to decline more slowly since. This trend is partly due to families having fewer children. However, the decrease in the number of individuals living together is also due to the breakup of extended family households, an increasing number of single-parent households, and the larger number of elderly who are choosing to remain in their own homes.

In Orleans County, average household size decreased from 2.66 in 1990 to 2.45 in 2000, and to 2.33 in 2010. Westmore’s average household size was 2.07 in 2010, down from 2.30 at the 2000



Census, and down from 2.56 in 1990.

### Number of Units

**TABLE 3: Number, Occupancy, & Use of Housing Units, Town of Westmore**

	Total Units	Vacant	Owner Occupied	Renter Occupied	Seasonal
1980	481	386	87	8	Not available
1990	542	9	103	16	414
2000	530	34	105	28	363
2010	598	27	148	17	406

Source U.S. Census 1980, 1990, 2000, 2010

Some of these Census figures, particularly the total units in 1990, seem to have some inconsistency which is assumed to be due to differences in definition and counting methods.

**TABLE 4: Population and Number of Households, –1980-2010 - Westmore**

Number of Household % Increase			Population % Increase		
1980-1990	1990-2000	2000-2010	1980-1990	1990-2000	2000-2010
20%	12%	24.1%	19%	.3%	14.4%

Source: U.S. Census 1990, 2000, 2010

### Age of Units

Like the rest of the region, a substantial portion (34%) of Westmore’s year-round housing stock was built before 1940. (This figure comes from ACS 5-Year Estimates) Another 12.7% was constructed pre-1950. There was a building boom between 1960 and 1975, and the 1990 Census figures show another active building cycle emerged during the 1980’s. Local sources suggest that recent building involves remodeling and/or replacement of older structures and limited amounts of new construction.

The number of households in Westmore is increasing more rapidly than its population. The number of households in Westmore increased from 119 in 1990 to 133 in 2000, and to 165 in 2010. (U.S. Census 1990, 2000, 2010).

### Land Prices

The cost of land is an important factor in the price of housing. The sale price of open land in Westmore, according to property transfer tax reports during 2016 was an average \$1,732/acre for 7 parcels with a median acreage of 29 acres. (The 2017 report does not have sufficient data on property transfers to characterize the sale of open land.)

### **ISSUES/CONCERNS**

1. The household income figures indicate that there is a need for more affordable housing throughout the county and in Westmore. Given Westmore’s small size this might be

addressed with very few units.

2. The increase in house prices has outpaced increases in income, exacerbating the previous affordability gap.

## **RECOMMENDED ACTIONS**

1. Study the feasibility of adopting a Transfer of Development Rights program within the Zoning Ordinance to encourage development in some parts of town while preserving open space and agriculture in other parts of towns.
2. Many seasonal homes have in the past become year-round homes without improving their septic system to handle the increased use. State law now requires adequate septic systems prior to the conversion of use.
3. Study whether it might be helpful to have subdivision regulation for the purpose of promoting orderly growth and the provision of municipal services at an affordable cost to the community.
4. Inform residents about federal and state programs for weatherizing, rehabilitation and home financing by making the information available through the town clerk and zoning administrator.
5. Ensure the current zoning by-law does not needlessly discriminate against affordable housing through requiring excessive lot sizes or building standards.
6. A survey should be conducted to determine if current and future housing options encourage young people to reside in Westmore and if the needs of elderly and retired residents are being met.
7. Conduct an annual review of the number of mobile homes on rented lots within the town because a disproportionate increase in this type of housing may indicate a lack of alternative affordable housing in the community.

## **16. TRANSPORTATION**

Westmore's geography dictates that travel within its boundaries, and to and from neighboring towns, be primarily by individual conveyance over the existing road system. State Route 5A and Town Road 16 provide year round access to the Willoughby Lake part of town, and to the secondary roads that serve the remote areas.

Westmore residents are dependent upon a well-maintained road system. The road network within Westmore consists of:

- 7.22 miles of State highways (Route 5 A)
- 1.50 miles of Class II town highways. These are designated by the selectboard and approved by the Vermont State Highway Board.
- 24.89 miles of Class III town highways. These are certified as Class III after consultation with the district highway engineer. Minimum requirements are that Class III highways be negotiable under normal conditions, all seasons of the year, by standard manufactured

pleasure cars, and thus such highways must have sufficient surface and base, adequate drainage, and enough width to allow winter maintenance.

- 3.77 miles of Class IV town highways. These highways are maintained for summer service only; persons erecting dwellings served by these roads cannot expect winter service.

### **Highways**

In addition to State Route 5 and Town Road 16, the town maintains 24.89 miles of Class III roads which serve the part of town west of the lake abutting Sutton and Barton, and areas to the east abutting Charleston, Brighton and Newark. Only the roads serving year round residents are kept open in winter, and are posted to exclude travel by heavy vehicles during spring thaw when travel by any type vehicle may be impractical. There are also 3.77 miles of Class IV roads which provide access to seasonal homes and receive minimal maintenance from the town. There is also a system of trails which provide recreational access to remote and scenic areas with special natural characteristics. Some of these are on state land and others are on private holdings, but have been traditionally open to public use. The snowmobile trail system uses private trails, as permitted by landowners, and public roads as authorized by the town.

### **Northeast Kingdom Byway**

Early in 2013 the Vermont Byways Council and the Vermont Agency of Transportation approved the designation of the **Northeast Kingdom Scenic Byway**, a 51-mile corridor that includes Route 5A in Westmore. The route terminates in St. Johnsbury and Newport, and also passes through Lyndonville, East Burke, West Burke, Charleston, and Derby.

To earn Byway designation, a proposed route must possess intrinsic historic, cultural, archeological, natural, recreational, or scenic values. Although the designation is not a regulatory program (no special zoning is required, for example), the Byway must have a Corridor Management Program (CMP) that assesses the intrinsic qualities of the byway and presents strategies for protecting and promoting them. The Byway designation is expected to increase tourism, create new jobs, and foster economic development. The CMP must therefore propose a marketing strategy. The Northeastern Vermont Development Association (NVDA) and the Northeast Kingdom Travel and Tourism Association (NEKTTA) are partnering to establish a more formal Byway committee that can raise awareness of the Byway assets. Important next steps will include developing signage for the route and training for regional tourism personnel. Key leaders from each community in the Byway shall be active on this committee.

### **Roads and Water Quality**

Research and water quality monitoring has indicated that roads are responsible for 6-10% of phosphorus loads to Lake Champlain, and other waterways, and roads contribute over 10% of sediment loads. Excessive sediment and phosphorus can cause algae blooms, increase water turbidity (cloudiness), and degrade fish and invertebrate habitat.

The 2015 legislative session created a new regulatory framework addressing all work on Town Highways, **The Municipal Roads General Permit**, as part of the Act 64- the Vermont Clean Water Act. This general permit is intended to achieve significant reductions in stormwater-related erosion from municipal roads, both paved and unpaved.

Municipalities will develop and implement a customized, multi-year plan to stabilize their road drainage system. The plan will include bringing road drainage systems up to basic maintenance standards, and additional corrective measure to reduce erosion. The town is currently working to NVDA to identify erosion-prone road segments connected to water bodies. This work will identify a series of stormwater improvements needed to meet the Municipal Roads General Permit Conditions.

### **Short Structures**

VTrans is required to inspect all bridges with a span of 20 feet or longer, whether they are located on a federal-aid system or a town highway. These inspections occur once every two years, and reports of the inspections are sent to the Town.

The bridge and culvert inventory does not, however, contain information on town highway “short structures,” which are bridges with a span of less than 20 feet but equal to or greater than 6 feet. These are neither inspected nor prioritized by the state, and no formal system for identifying or assessing them currently exists. In fact, short structures have not been depicted on the Town Highways Maps since 2003. Towns are responsible for the inspection of their own short structures. In 2015, NVDA performed condition assessments on town short structures, classifying them as “Good,” “Fair,” or “Poor.” The conditions assessment will be an important tool for identifying medium- to long-range costs for maintaining, upgrading, and repairing short structures.

### **Rail, Bus and Air Facilities.**

No scheduled public transportation facilities or service are available in Westmore. A subsidized commuter bus service, connecting Lyndonville and Newport, existed for a while but did not prove to be economically viable. The nearest rail service is in Barton with potential for future passenger service. Starting in 2007, an Agency on Aging grant has provided a bus service for seniors twice a month, for a three hour stopover, from Westmore to Barton.

### **Water Transportation.**

Navigation is feasible only on the lakes and ponds within Westmore. Boat launching facilities are available at the fishing accesses maintained by the state fish and wildlife department. Many private landowners maintain docks and launching facilities for their private use. Commercial use of bodies of water is regulated by the town and state.

### **Parking Facilities.**

Space for parking vehicles is provided by the activities which attract the occupants. The town provides parking for north beach users, and the fellowship hall provides space for church, community hall and town clerk’s office patrons. The town clerk’s office has recently upgraded its parking area, which also provides overflow parking, especially for the church and fellowship hall activities. The state owned fishing accesses include parking space for the vehicles used to launch and recover fishing boats, and trail heads within Willoughby State Forest provide parking space for hikers. All private residences make provision for off-road parking for the vehicles of the occupants and their guests.

### **Sidewalks and Bicycle Paths.**

Sidewalks and bicycle paths are extremely limited in Westmore, and existing construction along

5A complicates the construction of bicycle paths or sidewalks paralleling it. Thus on road cycling and walking can be hazardous in areas of relatively heavy vehicular traffic. The potential exists for the development of better pedestrian and bicycle pathways within the town.

### **Traffic**

Traffic in Westmore is generated by transients using Route 5A and Town Road 16, by residents commuting on local errands, and by tourists enjoying the unique scenery. The areas of most concern are the north beach of Willoughby Lake along Town Road 16, from the cemetery to the Willoughvale, the stretch of 5A from the Northern Exposure General Store to the Willoughby Lake Store and the portion of 5A adjacent to the south beach. The existing road system provides adequate access to the remote areas of town and its rugged condition limits speed and frequency of travel to safe levels. The State has been approached to do a traffic study of Route 5A and a study of the idea of dual traffic regulations for the section of Route 16 along the north beach is currently underway.

### **RECOMMENDED ACTIONS**

1. The Town shall cooperate with other agencies in maintaining an efficient infrastructure supporting travel required by residents to use facilities and services within the town and in other localities.
2. Westmore shall maintain the town highway system in safe and usable condition. Extension of the town road system shall be made entirely at the expense of potential users of the extensions, and with prior approval of the planning commission and selectboard who will establish minimum standards for the road extensions. Land owners should be encouraged to allow access to existing trails unless users abuse the private property traversed. Approval of extension, or deletion, of the existing road and trail systems will take into consideration the preservation of natural remote areas which give the town its basic character.
3. Westmore shall cooperate with other communities within the area to encourage the availability of public transportation in that area. Provision of transportation for the handicapped and aged will be encouraged along with energy saving systems.
4. Each individual, agency or activity shall be responsible for providing adequate parking for vehicles using its services or facilities, to the number of people whose vehicles can be safely accommodated within the available parking space. Permits for new development shall be contingent upon demonstrating that adequate parking will be available.
5. Westmore shall encourage the development of better bicycle-pedestrian pathways within the developed areas of town, and the construction of bicycle-pedestrian lanes to relieve congestion along the main traffic arteries. Development and maintenance of trails in remote areas by public or private sector, shall be encouraged to provide opportunity for serious hiking.

## 17. ENERGY

There is a growing awareness of the long-term costs - economic, environmental and social - of our energy choices. The use of energy is an important consideration in local decisions about municipal services and facilities, land use, building standards, and our local economy. Our consumption of energy also adds to the build-up of carbon dioxide which is causing global warming known as the green-house effect. While compact, mixed use development centers commonly lead to lower energy consumption, the rural character of Westmore does not make this easy to achieve.

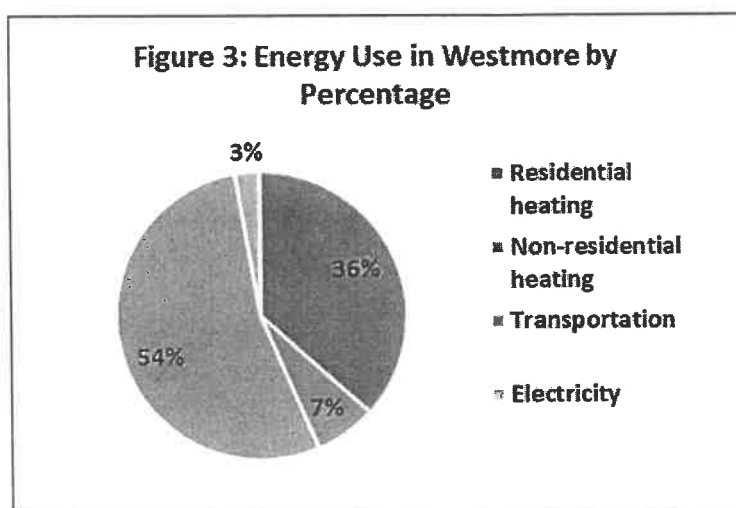
The Town of Westmore acknowledges that despite the challenges of our rural terrain, it is necessary to work toward a sustainable energy future in a manner that minimizes environmental impacts and supports Westmore's local land-based economy. This chapter is aligned with the standards of Act 174 so that the Town of Westmore may play a vital role in determining future energy use and generation.

This plan supports the overarching goals of the Vermont Comprehensive Energy Plan of 2016:

- Meet 90% of all energy needs from renewable resources by 2050
- Reduce greenhouse gas emissions to 50% below 1990 levels by 2028 and 75% by 2050
- Improve the energy efficiency of 25% of homes by 2025
- Meet the Vermont Renewable Energy Standard through renewable generation and energy transformation

### **Analysis and Targets: Current and Future Energy Use**

*Note: the following estimates are targets were developed with the assistance of NVDA and follow the same data methodologies used for the 2018 amendment to the Regional Plan for the Northeast Kingdom. Unless otherwise noted, data and figures in this chapter are from Northeastern Vermont Development Association. Addenda A and B to the Regional Plan document the methodologies used to develop usage estimates and targets. ([www.nvda.net](http://www.nvda.net))*



Westmore has a small village center and a densely settled lake community surrounded by extensive rural settlement and open space. According to latest American Community Survey 5-Year Estimates, nearly all of the community's housing stock consists of detached single-family homes, with one-unit detached structures accounting for about 94% and mobile homes about 4%. With little commercial development, nearly all of its residents travel out of town for

work, shopping, and other necessities. This pattern of development is linked with considerable energy use to meet transportation, heating, and electricity needs. According to NVDA estimates,

the town of Westmore uses nearly 43,000 million British Thermal Units (MM BTUs), the majority of which are spent on transportation, followed closely by heating. (Figure 3)

### Current Thermal (Heating) Use

Collectively, total energy use for heating space and water in all occupied units in Westmore accounts for about 15,619 MM BTUs at an annual cost of more than to \$239,000.

**TABLE 5: Residential Heating Estimates for Occupied Housing**

Fuel Type: Space Heating	Households	Total avg. Use (Annual)		% Use: (All HHs)	Percent of Use: Owner	Percent of Use: Renter	% of Cost (All HHs)
Tank/LP/etc. Gas	36	31541	gallons	20.8%	20.9%	20.0%	33.5%
Electricity	2	48144	KwH	1.2%	1.3%	0.0%	3.0%
Fuel Oil	76	42718	gallons	43.9%	40.5%	80.0%	39.8%
Wood	56	230	cords	32.4%	35.4%	0.0%	21.8%
Coal/Coke	3	13	tons	1.7%	1.9%	0.0%	1.9%
Other	-	0		0.0%	0.0%	0.0%	0.0%

Wood, a very popular heating source in Westmore, is the second most use source of heating for owner-occupied residences. Renters, who generally have less control over their heating fuel sources rely primarily on fuel oil.

Although this calculation uses best available data, it clearly has some limitations. First, like most Northeast Kingdom residents, Westmore residents are likely to use multiple heating sources. Second, this estimate does not account for the large share of seasonal housing units in Westmore, for which no published heating datasets are available. Department of Public Service guidelines suggest that it is reasonable to assume that seasonal units account for a mere fraction of the average owner-occupied housing unit – about 5%. There are currently 436 seasonal units in Westmore. Assuming 5% of the average owner-occupied housing unit (about 110 MM BTUs), they could collectively account for another 1,790 MM BTUs annually.

Age of housing stock also affects thermal energy use. According to ACS 5-year estimates, nearly one-fifth of Westmore’s owner-occupied housing stock predates 1940. Nearly one-half of renter-occupied housing predates 1940. This is significant because pre-1940 structures are likely to be “leaky” and poorly insulated, which can nearly double the average thermal use to 80,000 BTUs per square foot. (Department of Public Service). NVDA therefore assumed 80,000 BTUs per square foot for pre-1940 housing stock, 45,000 BTUs for all other.

Non-residential thermal estimates were developed using data from the Department of Public Service (DPS) and the Vermont Department of Labor’s economic and Labor Market Information. (Table 6) The Census does not have estimates on heating sources, but the DPS is able to estimate average heating loads on types of business. Additionally, this estimate excludes commercial operations likely to be home-based, such as daycares, in order to avoid double-counting.

**TABLE 6: Non-Residential Heating Use in Westmore**

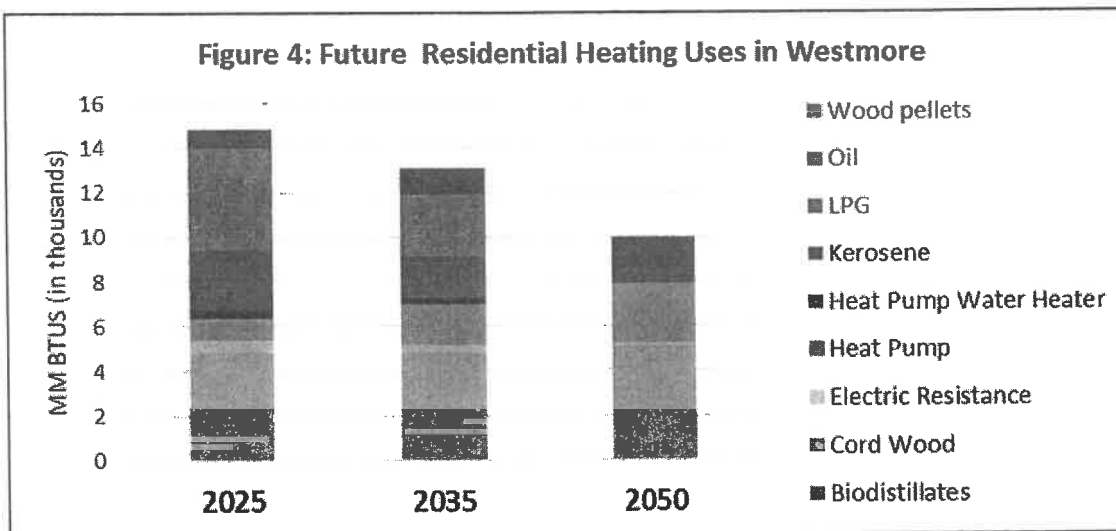
NAICS Code	Estimated Avg. Consumption (MMBTU)	# of Structures in Town	Total MM BTUs
44-45. Retail trade	295	1	295
54. Professional and technical services	109	1	109
72. Accommodation and food services	812	3	2439
<b>TOTAL</b>		<b>5</b>	<b>2841</b>

The Westmore town clerk's office, a 1,464 square foot one-story building, is occupied regularly about 28 hours and 4 days a week during the heating season. The structure is heated by an oil boiler, which accounts for about 80 MM BTUs annually.

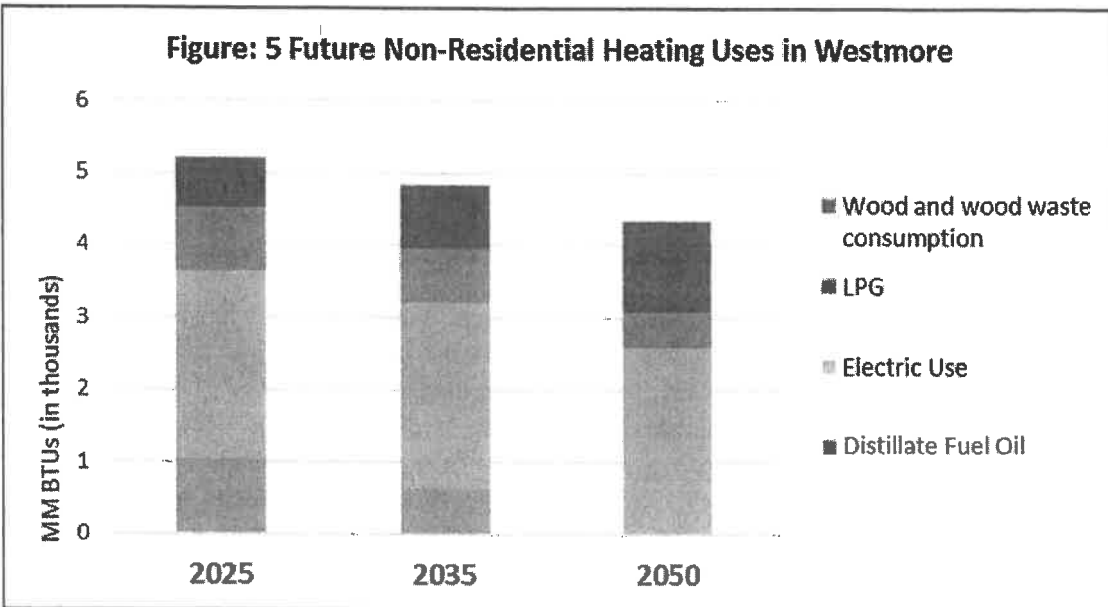
#### **Future Thermal Use and Pathways to 2050**

Figures 4 and 5 illustrate potential pathways for Westmore to achieve the 2050 statewide energy goals. (LEAP stands for Long-Range Energy Alternative Planning Systems, a widely used software tool for energy policy analysis.) These figures are derived from statewide projections.

According to these LEAP scenarios, residential thermal use decreases from existing levels by nearly half in the 2050. By contrast, Westmore's non-residential/commercial thermal use (which is already very small) decreases by about 25% over the same period.







Achieving Westmore 2050 thermal energy goals is predicated on two overarching strategies:

**1. Reduce overall heat energy consumption through aggressive weatherization and efficiency upgrades. (Table 7)**

The Planning Commission strongly advocates the conservation of energy and energy efficiency. This plan recommends the use of energy-saving products such as insulation, efficient appliances, and, when necessary the use of winter weatherization products such as weather stripping, window plastic, and water heater wraps. New construction and the replacement of old appliances, doors, and/or windows should always be done with energy efficient products. In addition, energy efficient behavior (shutting lights off when leaving the room, turning the thermostat down at night, etc.) should be taught and used, at home and in the workplace.

The Town Clerk's Office received a thermal energy efficiency audits in 2011. The Planning Commission recommends that improvements be made to make it more energy efficient, thereby reducing costs and saving taxpayer dollars.

The US. Energy Information Administration estimates that new homes generally consume 21% less energy for space heating than homes built before 2000. Nevertheless, there are several siting techniques for development that are likely to result in additional conservation of energy. Building on south facing slopes will generally make a house less expensive to heat. Shade trees can also be planted to reduce cooling costs on warm days, just as evergreen trees can be planted to lessen the effect of winter's freezing winds.

**TABLE 7: Weatherization Targets for Westmore**

	<b>2025</b>	<b>2035</b>	<b>2050</b>
Estimated number of residential structures	183	194	206
# of residences to be weatherized	57	99	106
Estimated number of commercial establishments	5	6	6
# of commercial establishments to be weatherized	0	1	1

**2. Switch from fossil-fuel heat to clean renewable sources. (Table 8)**

Fuel oil use will be virtually eliminated by 2050, although some LP gas use may remain. Most of the money Vermonters spend on fossil fuels leaves the state and local economy. Only 20 percent of the dollars spent on non-renewable fuels stays in the state, while 80 percent of that spent on wood remains in Vermont. Replacing fossil fuel systems with wood energy systems would keep the energy dollar within our local economy. Through the use of local, residential scale renewable energy resources, residents decrease the money they spend on energy while increasing the local economy.

Although cord wood will continue to be a popular choice in the region, wood pellets, which are cleaner burning and more efficient than cord wood, are gaining popularity among residents. Their prices have remained relatively stable, although there have been some shortages in recent heating seasons.

Geothermal, or “ground source heat pump systems”, extract natural low-temperature thermal energy from the ground during colder months for heating, and transfer thermal energy from the building to the ground in warm months for cooling. A geothermal system in Vermont can save roughly \$1,000 to \$2,000 annually in heating costs and have a “simple payback time” of between 10-20 years. This technology operates much like a refrigerator, utilizing a heat pump, heat exchanger, and refrigerant. While geothermal systems do require electricity to operate the pumps, the systems generally deliver between 3 to 5 times more heat than the electrical energy they consume (depending on the type of system).

Geothermal pumps require excavation and duct work, pricing the technology out of reach for many residents. In recent years, however, manufacturers have developed a similar air-sourced heat pumps that operate more consistently over Vermont’s vast temperature ranges. Also called “cold climate heat pumps” or “mini splits”, these units can be two to three times more efficient than propane and fuel oils. Unlike geothermal units, they do not require excavation or duct work and can be much less expensive to install. Cold climate heat pumps have the capacity to heat about only 50% to 70% of a building, depending on the size and layout of the structure. Some structures with multiple heating zones may be difficult to heat with heat pumps alone, but the pumps may be effective for boosting colder underserved zones. They also may be useful in outdoor workspaces. Despite recent improvements in effectiveness on cold days, a backup heating source is usually required for sub-zero temperatures. Nevertheless, the superior efficiency in heat pump technology, compared to combustion-based heating sources, accounts for the overall decrease in the reliance on wood heat systems by the year 2050.

**TABLE 8: Fuel Switching Targets for Westmore**

	2025	2035	2050
New Efficient Wood Heat Systems in Residences	151	126	91
New Efficient Wood Heat Systems in Commercial Establishments	1	2	2
New Heat Pumps in Residences	45	96	122
New Heat Pumps in Commercial Establishments	0	1	1

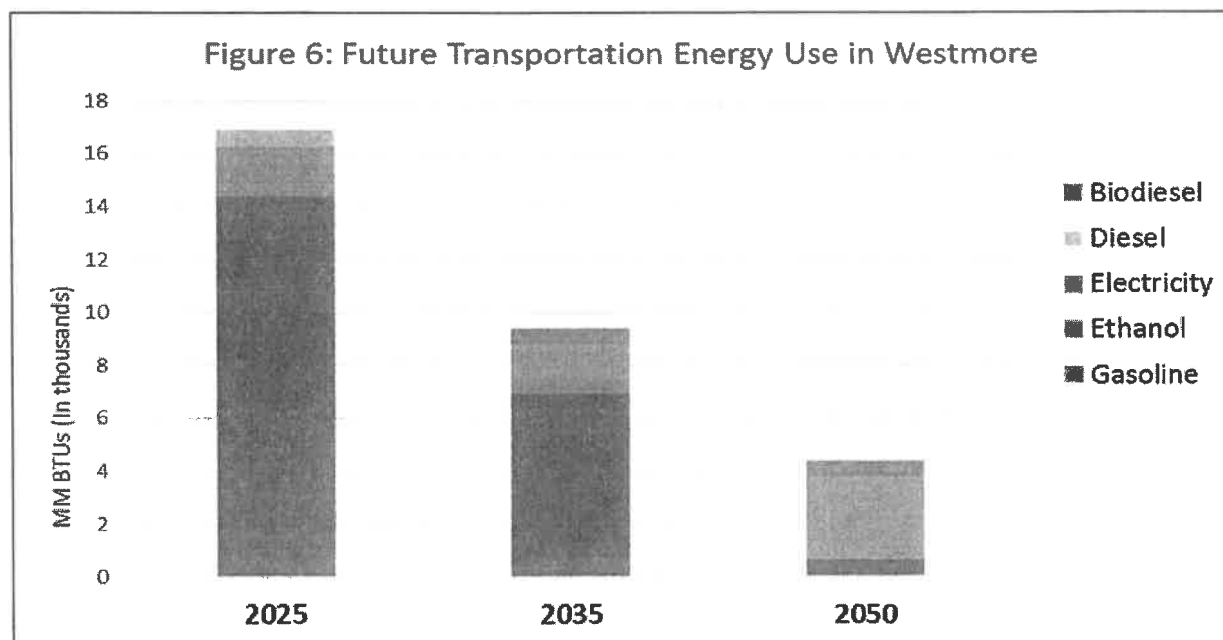
### Current Transportation Energy Use

Energy use in transportation is most greatly influenced by the development patterns of the region. According to NVDA estimates, long commutes and incidental trips require NEK residents to drive an average of 14,000 miles per year. That means collectively, Westmore residents drive nearly 4.3 million miles annually, accounting for more than \$437,000 in fuel costs. Nearly all of this energy is non-renewable. Ethanol currently accounts for all renewable transportation energy usage in Westmore – about 6% of total BTUs.

There are three kinds of electric vehicles (EVs) available: all-electric, plug-in hybrid electric, and hybrid electric. The first two require a plug-in, and the latter simply recharges from the combustion motor and from braking). According to Efficiency Vermont data, there were no all-electric or hybrid electric vehicles registered in Westmore as of January 2017. There are limited opportunities to charge electric vehicles away from home. The nearest public charging stations are in Derby Line and in Barton. Both are level 2 (240 volt), which can produce about 10 to 20 miles of range per hour of charge, depending on the weather. Nevertheless, EVs have the greatest potential to reduce Vermont’s statewide greenhouse gas emissions. “Refueling,” which is as simple as plugging into an electric outlet, costs the equivalent of about \$1.00 per gallon.

### Future Transportation Energy Use and Pathways to 2050

Figure 6 shows one possible pathway for Westmore to meet the “90 by 2050” challenge.



According to the LEAP scenario, Westmore’s total transportation use will have fallen to **just over one-fifth of current levels by the year 2050**. Electricity, the largest share of fuels by then, account for 3,000 MM BTUs. Biodiesel will account for 1,000 MM BTUs. Gasoline use will drop by 96% over that same period. Electrification will account for much of the overall reduction: EVs currently have a fuel efficiency many times greater than that of combustion engines. Latest figures from the EPA show that EVs in the northeastern US get the equivalent of 102 miles per gallon.<sup>8</sup> This estimate also accounts for technological gains by 2050, gradually increasing range from 3 miles per kWh to 4 miles per kWh.

**TABLE 9: Fuel Switching Targets for Transportation**

	2025	2035	2050
# of Light-duty vehicles (e.g. cars, non-commercial trucks) in Westmore*	343	386	434
# of LDVs powered by electricity	28	122	263
# of LDVs using biofuel blends	261	179	31

\*figures are derived from American Community Survey estimates

According to LEAP estimates, more than half of all light-duty vehicles in Westmore are expected to be powered by electricity by the year 2050. Despite the lack of infrastructure and rough rural terrain of the region, industry forecasts predict that more than half of all new car sales will be EVs by the year 2040<sup>9</sup>. Although EVs are expected to play a major role in reducing transportation energy use; however, Westmore will still have to reduce its overall reliance on light duty vehicles in order to meet 2050 LEAP projections. This is a tall order for any rural community where development patterns directly impact energy use, especially in regards to individual behaviors. With limited transit infrastructure, the region is dominated by single-occupancy light-duty vehicles. Residents typically commute to disparate labor market areas, reducing opportunities for carpooling.

VTrans offers grant assistance to municipalities who wish to establish park and rides on municipal, state, or leased property on or near state highways. While mixed-use, higher density neighborhoods encourage more pedestrian use, these land use principles will be hard to achieve in a small community like Westmore, which has no off-site water or sewer. However, clustering development, wherever possible, should be encouraged in the town’s zoning bylaws.

Alternative transportation accommodations, such as bike and pedestrian lanes, can help to reduce reliance on vehicles. Such amenities are particularly needed on Route 5A. There is no transit in and out of town. Rural Community Transportation runs a weekly “shopper” bus line with nearest stop in East Charleston. Daily inter-state bus service is available from White River Junction. This plan advocates for expanded transit opportunities for Westmore residents.

<sup>8</sup> <https://blog.ucsusa.org/dave-reichmuth/new-data-show-electric-vehicles-continue-to-get-cleaner>

<sup>9</sup> Bloomberg New Energy Financial: Electric Vehicle Outlook 2018 <https://about.bnef.com/electric-vehicle-outlook/>

Additionally, improved telecommunications infrastructure in this region has the potential to reduce annual VMTs by allowing more workers to telecommute. Given the vast majority of Westmore residents are employed outside of the community, ride sharing is another opportunity to reduce transportation consumption.

### **Existing Electricity Use**

Reports from Efficiency Vermont show that electricity use has been relatively stable for Westmore residences over the most recent three-year period. (No data is available for commercial uses.)

**TABLE 10: Westmore Electricity Use by Year and Sector (in kWh)**

	2015	2016	2017
Commercial & Industrial, kWh	--	--	--
Residential, kWh	356,545	299,376	347,128

The same dataset indicates that most efficiency rebates issued to Westmore residences have been from of switching to more efficient (LED) light bulbs and by replacing hardwired lighting fixtures.

### **Future Electricity Use and Potential Pathways**

While electricity use in Westmore accounts for the smallest share of overall energy use, it is important to remember that total electricity use is expected to increase exponentially by 2050 due to fuel switching in thermal and transportation uses. (LEAP projections for the town indicate a 300% increase for electricity for thermal and transportation uses.) This increase seems counterintuitive to energy use reduction goals, but because electricity is more efficient than the fuels it will replace, total energy consumption will decline even as electricity use rises. Nevertheless, meeting efficiency goals through ongoing replacement of equipment, bulbs, hardwiring, and appliances, will be critical for meeting the 2050 energy use goals. Efficiency Vermont offers rebates for a number of equipment upgrades, including advanced power strips and EnergyStar appliances. The Town should help to get the word out about these rebate programs.

**TABLE 11: Westmore Residences with Upgraded Electrical Equipment by Year**

	2025	2035	2050
Estimated number residential customers	275	292	309
Number of residential customers to upgrade electrical equipment	66	103	151

### **Existing Energy Generation and Distribution**

Westmore has no hydro or biomass facilities. Existing generation consists of two residential scale roof-mounted solar installations with a combined capacity of 4.9 kW, producing about six MWh a year. Another residence also uses solar panels to heat water.

Westmore is served by three electric utilities. Barton Electric Department serves most of the town, the Vermont Electric Coop (VEC) serves a few residences in the northernmost area of the town bordering Charleston and Brownington, and Lyndonville Electric serves a few residences in the eastern portion of town, from Bald Hill Pond to the border with Newark. An electric franchise area map showing service areas is attached to this plan.

All three utilities operate in an area known as the Sheffield Highgate Export Interface (SHEI), where generation exceeds load and causes grid congestion. In essence, excess generation runs the risk of exceeding the capacity of the export line, which can ultimately lead to grid instability. The continued addition of new sources of generation forces existing resources, like Kingdom Community Wind and Sheffield Wind to curtail their output due to the lack of capacity to export power. Adding more renewables to an already full grid at this point can simply mean replacing other renewables. While modest transmission upgrades may help to alleviate some congestion in the short-term, the situation will require robust, long-term solutions that are complex and possibly costly.<sup>10</sup> Utilities, clean energy advocates, regulators and other stakeholders are currently discussing ways that the SHEI limitations can be addressed to reduce or eliminate curtailments of generation located within the interface.

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

### **Siting Resource Maps and Guidelines for Generation**

Westmore would need to generate at least 99 MWh of renewable energy to meet the goals of the regional energy plan. The Town of Westmore actively encourages the use of local, residential scale renewable energy, provided that it does not adversely impact the town's natural resources. There are places in Westmore where solar power and residential scale wind power may be feasible. The following map analyses, closely follow the Northeast Kingdom's Regional Energy Plan and meet Act 174 standards for renewable resource mapping.

### **Known and Possible Constraints (Unsuitable areas)**

Westmore's energy maps were generated using GIS (geographic information systems) data layers developed by the Vermont Center for Geographic Information. "Known constraints" were removed entirely from available resource areas:

- Vernal pools
- River corridors (areas prone to fluvial erosion)
- Floodways (where floodwaters run the deepest and fastest)

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<sup>10</sup> Frank Ettori, SHEI Overview, VSPC, July 12, 2017 v. 2

- State significant natural communities
- Rare, threatened, and endangers species
- Natural wilderness areas
- Class 1 and 2 wetlands

**“Possible constraints,”** areas that would likely require some form of mitigation if they were to be developed, were then identified to as potential complications for development generation facilities:

- Soils of agricultural importance (e.g. prime agricultural soils, soils of statewide importance)
- Special flood hazard areas (outside of floodways and river corridors)
- Protected and conserved lands
- Deer wintering areas
- Hydric soils (soils that are either permanently or seasonally saturated with water. Although these soils may function as wetlands, they are not necessarily mapped as Class 1 or Class 2 wetlands)
- Conservation design highest priority forest blocks (contiguous habitat areas that are unfragmented by roads, development, or agriculture)

#### **Regional Known Constraints (i.e. “Unsuitable areas)**

Westmore’s maps also incorporate a regional constrain from NVDA’s Regional Plan, adopted April 26, 2018, and Certified by the Department of Public Service June 22, 2018. Rural lands containing one or more of the following conservation attributes, shall be considered exceptionally sensitive and shall therefore not be designated as appropriate for commercial or industrial development that is not directly related to the region’s lands-based economy (i.e. forestry, agriculture, and recreation):

- State natural areas and fragile areas: This includes the Willoughby Cliffs area
- Lands managed by the Department of Forest Parks and Recreation
- Highest priority forest habitat blocks
- Forested coverage of Site Class 1, 2, and 3 soils of 25 acres or more
- Headwaters
- Upland areas of 2,000 feet or higher

Lands containing one or more of these attributes shall not be developed, as their best uses are a combination of forest and conservation purposes. Appropriate uses include sustainable forestry and logging practices, maple syrup production, wildlife habitat, and passive recreation. Maintaining forest and vegetation coverage on upland areas is particularly important in that it provides natural floodwater attenuation and minimizes contribution to flash flooding in downslope areas, as well as increased sediment loads to headwaters. Ridgelines in these sensitive areas are a particular concern as developments can be seen from multiple locations including neighboring communities. From our experience, distance is not an effective strategy to mitigate impacts to such viewsheds. In accordance with NVDA’s duly adopted regional plan, the Town of

Westmore will not support proposed development or re-designation of lands with regional constraints as described in Table 12 that include any of the following impacts:

- Loss of forest cover and introduction of impervious surface coverage
- Incursion of roads intended for uses other than resource-based activities (i.e. sustainable wood harvesting and recreation) that result in the fragmentation of habitat
- Uses that introduce smoke or other emissions
- Uses that introduce light trespass or sustained noise

### Local Constraints

The town of Westmore has added possible constraints to the Energy Resource Maps. Renewable energy development should not create an undue adverse impact to Westmore's scenic ridgelines, as viewed from any public right of way, body of water, known hiking trails, or any vantage point in the National Natural Landmark area. This policy is consistent with the policies on general development and use restrictions cited throughout this plan. Westmore's ridgelines, which are depicted on the attached Viewshed Map and accompanying photos, are highly visible from the lower elevations, leaving the town particularly vulnerable to adverse impacts of ridgeline development. Undue adverse impacts would include changing the following elements of Westmore's scenic viewsheds: views from public roadways across open fields, especially when those fields form an important foreground; prominent ridgelines or hillsides that can be seen from many public vantage points; views from hiking trails and scenes that include important contrasting elements such as water and sites with historical significance.

Additionally, unfragmented tracts of working lands (agriculture or forestry) of 20 acres or more are unlikely to meet the requirements of Westmore's screening ordinance for ground-mounted solar plants (GMSPs).

Resource areas that do not overlap with any known or possible constraints are considered "Prime" resource areas. Areas that overlap with possible constraints are consider "Secondary" resource areas.

**TABLE 12: Constraints and Unsuitable Areas for Renewable Energy Development**

Known Constraints (Statewide layer developed in support of Act 174)	Regionally Unsuitable Areas (NVDA Regional Plan)	Possible Constraints (Statewide layer development in support of Act 174)	Local constraints
<ul style="list-style-type: none"> <li>• Vernal pools</li> <li>• River corridors</li> <li>• Floodways</li> <li>• State significant natural communities</li> <li>• Rare, threatened, and endangered species</li> <li>• Natural wilderness areas</li> <li>• Class 1 and 2</li> </ul>	<p>Rural lands, which contain one or more of the following conservation attributes: State natural areas and fragile areas: This includes the Willoughby Cliffs area</p> <ul style="list-style-type: none"> <li>• Lands managed by the Department of</li> </ul>	<ul style="list-style-type: none"> <li>• VT agriculturally important soils</li> <li>• Special flood hazard areas</li> <li>• Protected and conserved lands</li> <li>• Deer wintering areas</li> <li>• Conservation design highest priority forest blocks</li> </ul>	<ul style="list-style-type: none"> <li>• Scenic ridgelines</li> <li>• Unfragmented working lands</li> </ul>



wetlands	Forest Parks and Recreation <ul style="list-style-type: none"> <li>• Highest priority forest habitat blocks</li> <li>• Forested coverage of Site Class 1, 2, and 3 soils of 25 acres or more</li> <li>• Headwaters</li> <li>• Upland areas of 2,000 feet or higher</li> </ul>	<ul style="list-style-type: none"> <li>• Hydric soils</li> </ul>	
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### **Solar Siting Guidelines**

The following areas are specifically identified as preferred areas for solar facilities, as they are most likely to meet the siting requirements of this plan and screening requirements of the Town of Westmore's Zoning Bylaw for GMSPs:

- Roof-mounted systems;
- Systems located in proximity to existing agricultural buildings that provide screening;
- Areas with no known or possible constraints that are near existing hedgerows or other topographical features that naturally screen the entire proposed array;
- Former brownfields;
- Facilities that are sited in disturbed areas, such as gravel pits, closed landfills, or former quarries;
- Working farms, where more than 50% of the energy generated by the solar development is used by the farm.
- Other preferred areas as indicated on Westmore's solar resources map.

Specific sites may be added to the Westmore solar resources map, provided they do not conflict with the Town's siting criteria. Preferred sites will be selected by the Planning Commission following a public hearing and submitted to the Selectboard for approval prior to being added to the Town Plan. Criteria for selection will include a request by the property owner, visibility from public highways, visibility from nearby residences, ease of connection to the electric grid and the current land use.

The importance of roof mounted solar cannot be understated. Using conservative estimates of one out of every ten residences, Westmore could generate as much as 300 MWh by 2050.

*For policy purposes of this plan, solar energy facilities are grouped into three categories:*

**Small-Scale Solar:** Solar electricity and transmission facilities up to and including 20 kW capacity;

**Mid-Scale Solar:** Solar electricity generation and transmission facilities greater than 20 kW capacity and less than or equal to 150 kW capacity or up to two acres of developed area including fencing; and

**Large-Scale Solar** (also known as ‘utility-scale’): Solar electricity generation and transmission facility greater than 150 kW in capacity or more than 2 acres of developed site area.

- While the Town of Westmore encourages rooftop solar, installations shall be sited in such a way to prevent adverse impacts to historic sites and structures. Prohibited impacts include:
  - Full or partial removal or demolition of the structure;
  - Physical or structural damage,
  - Impairment of a vista or viewshed from a historic resource that is a significant component of its historic character and history of use;
  - Visually overwhelming a historic setting, such as by being dramatically out of scale;
  - Isolating a historic resource from its historic setting, or introducing incongruous or incompatible uses.
- Open agricultural fields and/or pastures or contiguous fields and/or pastures (separated only by hedge rows, fence lines, drainage ditches, roads, etc.) larger than five acres should not be used for large scale solar facilities except for on-farm solar generation that can help farms reduce expense and remain viable. Such installations shall not replace any areas greater than two acres of productive agricultural fields. Examples of appropriate integration of on-farm solar siting include roof-mounted solar on farm structures, or ground-mounted solar plants (GMSPs) that support grazing; the establishment of pollinator crops; or the creation of buffers between organic and non-organic production areas.
- Small-scale GMSPs shall be sited and screened so that visual impacts are mitigated when viewed from public streets, scenic viewpoints, and/or adjacent properties. If topography alone does not provide sufficient screening, a combination of landscaping materials (such as trees and shrubs) are strongly preferred over a large expanse of uninterrupted, uniform material.
- Mid- and large-scale solar development must meet Westmore’s solar screening requirements for GMSPs.
- All large-scale solar developments shall be sited only on preferred areas.
- GMSPs with a coverage of more than three acres, individually or cumulatively, cannot be adequately screened or mitigated to blend into the municipality’s landscape and are, therefore, explicitly prohibited.

### **Wind Siting Guidelines**

*For policy purposes of this plan, wind energy facilities are grouped into three categories:*

**Small-Scale Wind**, defined as systems with generating capacities up to and including 10kW;

**Mid-Scale Wind**, defined as systems with generating capacities greater than 10kW (AC) and less than 1MW; and

**Utility-Scale Wind**, defined as systems with a generating capacity per turbine of 1 MW or greater.

Because of existing constraints, utility scale wind generation facilities, including test towers, are not considered feasible in Westmore. Westmore's high elevation lands and ridgelines are deemed unsuitable for large-scale commercial and industrial development.

Mid-scale wind power generation is only appropriate for the purpose of supplementing onsite energy consumption for farms and other businesses; however, it cannot be adequately screened in the National Natural Landmark Area, or in areas depicted on the Viewshed Map, and is therefore prohibited in those areas.

While small-scale wind may be suitable for residences and farms in Westmore, they should be carefully sited to minimize noise to neighboring properties. Small-scale shall not cause a sound pressure level in excess of 5dB above the background noise during the day and 3 dB at night, measured at the nearest neighboring residential property.

### **Biomass**

The Woody Biomass Energy Potential Map attached to this plan indicates sources of woody biomass energy, but it does not provide an estimate of how much energy could be produced, nor does it indicate potential locations for a biomass-fueled energy generation facility. Westmore residents have long used wood to heat their homes, and that tradition will likely continue. However, the extremely limited scale of commercial activity in Westmore makes any industrial application such as cogeneration highly unlikely.

While Westmore's forested lands play a critical role in supporting the local and regional timber economy, this plan supports only responsible harvesting practices that address the issues and concerns identified in the Forests chapter of this plan. These practices include drawing up forest management plans; minimizing forest fragmentation through careful site design; protecting wildlife, natural communities, and core forested habitat areas; and avoiding any visual intrusion created by clearcutting which can be seen from the National Natural Landmark Area or any of the scenic resources depicted on the Viewshed Map.

### **ISSUES/CONCERNS**

1. The public buildings may not be energy efficient and meet contemporary building standards.
2. Many people commute long distances to work each day.
3. Use of local, residential-scale renewable energy resources and energy efficient techniques should be encouraged.

4. As more people are lighting their walkways at night, the amount of light pollution and energy consumption is going up. Not only does it use energy, it detracts from the rural character of the town.

## **RECOMMENDED ACTIONS**

1. Support the efforts of the Westmore Energy committee and its public outreach efforts on conservation and weatherization efforts.
2. Pursue and publicize efficiency and fuel switching incentives as appropriate (e.g. Tier 3, Efficiency Vermont rebates, etc.)
3. Explore fuel switching options for the Town Clerk's office, such as a pellet stove or a heat pump.
4. Work with the zoning administrator to ensure that all zoning permit applicants have a copy of the Vermont Residential Building Energy Standards.
5. Consider adopting stretch energy codes.
6. An energy audit for the Westmore Town Clerk's Office was completed in 2011. Energy audits should be completed on other public buildings in town, and audits of private buildings should be encouraged.
7. Energy efficiency should be encouraged through green and efficient building techniques, use of Energy Star appliances, efficient lightbulbs.
8. Encourage car and van pooling by providing a parking area for commuters.
9. Establish an EV charging station in the Village area. Consider pursuing Village Center designation, which would make funds available for doing this, as well as other projects.
10. Establish a town policy that when new roads are built or existing roads are reconstructed, provisions are considered for a bike lane and/or walking path along the road.
11. Promote small woodlot management practices which would supply locally grown wood fuel.
12. Encourage residents and commercial establishments to use the least number of outside lights required to ensure safety.
13. Consider installing automatic vehicle location equipment in all town vehicles to improve efficiency.
14. Work to improve telecommunication and internet infrastructure so that more people can work from home.

## **18. RECREATION**

Westmore is one of the recreation meccas of Vermont. Traditionally recreation has been an important part of the local economy beginning in the 1800s when people traveled long distances to relax near Willoughby Lake. This tradition continues to play an important part in the town today as the majority of the local taxes are generated from summer camps and recreation property.

Westmore is very fortunate to possess many recreation attributes with numerous clean lakes, Willoughby State Forest, Sentinel Rock State Park, mountains with an extensive trail network, a town park, and of course Willoughby Lake with its boat access site and several swimming beaches. All of these attributes combined, make Westmore a very special recreation community - perhaps the core to Westmore's economic future.

The town attracts tourism due to the fact that it has Willoughby Lake, Long Pond, Jobs Pond, Bald Hill Pond, Willoughby State Forest, and the many mountains and ridgelines in public and private ownership with spectacular vistas and hiking trails. Westmore's trail network consists of more than 20 linear miles, and includes the "Westmore Challenge," an east-west trail across the town, the Long Pond Trail to the summit of Bald Mountain, trails to Mount Pisgah, Mount Hor, Haystack Mountain, Wheeler and Moose, and even trails that go into neighboring communities. Therefore, the town's concerns include maintenance of the water quality of these bodies of water, and the accessibility of the mountains for hiking. However, all recreation opportunities do not come without some challenges which need to be addressed.

#### **Willoughby Lake**

- Grant money could be sought to construct adequate bath houses.
- The south end swimming area is part of Willoughby State Forest. Following public hearings, the master plan calls for low impact recreation and little development. However, in order to maintain the high quality of the area, parking, trails, sanitary facilities and long term maintenance need to be addressed.
- The State boat launch site allows a limited number of large boats to access Willoughby Lake. Although the planning commission does not endorse enlarging the access site or creating new sites, it does recognize a growing problem with traffic and parking safety at the boat launch site.
- As more boats are being moored on Willoughby Lake, especially at the south end, greater involvement between Westmore and appropriate state agencies would be desirable.

#### **Throughout Town**

- There are over ten miles of trails on private land and 12 miles on public land. In order to ensure the protection of the resource, they need constant maintenance. This can be accomplished by supporting the trail committee of the Westmore Association and the Conservation Commission.
- Undeveloped lakeshore, forest, and undeveloped ridgelines provide important wildlife habitat, a peaceful place to reflect on life, and protection of water quality. Westmore has many opportunities to protect these areas.
- Hiking, fishing, horseback riding and hunting are enjoyed on public lands and on much of the privately owned land in Westmore. However posting of private land against public recreation has been on the increase and may further increase unless users are careful to respect the rights of property owners.
- Infestation of eurasian milfoil and zebra mussels into Vermont lakes is an ever growing concern. Boaters should be encouraged to check their boats and motors for eurasian

milfoil before using Westmore's lakes and ponds.

- Many of the mountain peaks do not have permanent public access through rights of way. The Conservation Commission should work to secure permanent public access to the mountain peaks.

### **RECOMMENDED ACTIONS**

1. The town should continue involvement in promoting a mooring management plan for the lake.
2. The Recreation Committee and North Beach Committee should be encouraged to work specifically on recreation issues.
3. Notify the State of Vermont agencies that the planning commission should be included when corresponding with the Town of Westmore on issues concerning the lakes, ponds, and any other environmental or developmental issues in the town.
4. The Town of Westmore should actively support strengthening the liability laws protecting landowners for allowing public access to their private lands.
5. The importance of the ridgelines must be considered in evaluating the appropriateness of any commercial or large residential development.

## **19. ECONOMIC DEVELOPMENT**

The purpose of planning for orderly development is to encourage and promote the kind of community growth which preserves the town's physical beauty, unique character, quality of life, and economic welfare of its citizens. In recent years, nearly all of Westmore's development has been residential, both year-round and seasonal. This trend will probably continue and can be compatible with a working agricultural and silvicultural (science of forestry) landscape when planning techniques are effectively applied.

Westmore has only four covered employment establishments in town. ("Covered" employment refers to those employers who fall under the coverage of the state and federal unemployment insurance programs and pay unemployment taxes on their workers.) Two of those establishments fall under the leisure and hospitality category. Because Westmore is a small rural community its economic development strategies are best evaluated against a regional context. In 2011, Northeastern Vermont Development Association provided this context when it commissioned an analysis of "Strategic Industries in the Northeast Kingdom."

The first part of the analysis provided an economic overview. The Northeast Kingdom's labor market is undergoing fundamental changes. Services, trade, transportation, and finance and insurance combined now employ about three in every four workers in the region. While employers in the Northeast Kingdom have not added much employment in recent years, there has been a marked increase in self-employment. The study reports that in 2008, there were 6,391 self-employed (considered "non-employers") in the Northeast Kingdom, amounting to \$2.42

million in revenues. Self-employed workers in the Northeast Kingdom account for a third of total employment.

The second part of the study provides an industry cluster analysis of the Northeast Kingdom. The process of identifying the Northeast Kingdom's industry clusters entailed analyzing detailed sector data, including employment concentration, wage performance and stability, growth and change, and supply chain interrelationships. Clusters were ranked as "mature, challenge, opportunity, or star." Clusters identified as "stars" had high levels of employment concentration and solid recent performances.

One such "star" cluster for the Northeast Kingdom was found to be "visitor and tourism," a sector that showed solid growth during the study period of 2001-2009. The study also indicated that significant investments would help make the region a year-round destination and would continue to add jobs to its solid base of nearly 1,000 workers. Arts, entertainment and recreation (NAICS category 71) experienced a 10.6% growth rate during this study period, compared to a 7.7% change nationwide.

Westmore is located between the Burke and Jay areas and stands to benefit from the recent investments – but can only do so if its natural assets are maintained. In 2006, the Northeast Kingdom was one of only a handful of destinations selected by National Geographic to participate in its Geotourism program. This concept embraces "sustainable tourism" – enhancing the local economy while minimizing the negative impacts on the environment and the local culture. Westmore and the Willoughby Lake area, which has been designated as Registered Natural Area under the Historic Site Act epitomizes the values and assets of geotourism. Among Westmore's most marketable assets are its abundant natural resources and dramatic viewsheds . The lake and the core of the community are virtually encircled by forested ridgelines, lending to the beauty of its landscape and creating a visitor experience that is altogether unique and authentic.

Willoughby State Forest and other forested land in Westmore can play a major role in the town's economic future. A Northeastern Forest Alliance study states that, on the average, each thousand acres of Vermont forest land produces 4.2 forest tourism jobs and 1.1 forest manufacturing jobs. Forests support wood-using industries vital to continuing the economic viability of rural economies. Forests provide the environment for a host of non-timber forest activities ranging from hunting, fishing, and viewing fall foliage to camping and water storage. Westmore's lakes, the scenic roads, recreational opportunities, and the unspoiled rural landscape attract visitors who come to enjoy our natural resources.

Residents of the Northeast Kingdom are coming to realize that their economic future may lie more in "geotourism," the wise use of our abundant natural resources rather than attracting manufacturing or industrial development. Seasonal and vacation visitors make a substantial and growing contribution to the local and regional economy.

The economic future of Westmore lies substantially in the wise stewardship of our natural resources: the water and the land. Sustainable development in Westmore should be based on providing recreation opportunities and related services for visitors which are compatible with our

active agricultural and forestry traditions. The underlying strategy of a development plan is to plan for orderly growth which maintains a sound tax base and anticipates the potential tax burdens for current and future needs.

#### **RECOMMENDED ACTIONS**

1. Create an inventory of the existing and potential recreational opportunities in the town.
2. Encourage a diversity of sustainable uses which would allow a variety of low-impact commercial and recreational uses in different districts.
3. Inform local entrepreneurs about the availability of small business development services and funds.
4. Encourage a diversity of local commercial and service enterprises which use local labor as much as possible.

### **20. HEALTH FACILITIES**

Health services are provided at North Country Community Hospital in Newport and the Northern Vermont Regional Hospital in St. Johnsbury. Glover ambulance services respond to calls from Westmore. Barton responds to the west side of Willoughby, and Orleans to the east side. A First Response Team has been organized in the Town of Westmore.

#### **RECOMMENDED ACTIONS**

1. Due to the rural setting of Westmore, home health care should be encouraged.
2. Periodically, Westmore and the surrounding towns should consider whether to establish a local health care center.

### **21. SECURITY SERVICES**

Police protection is provided by the State Police dispatched from Newport and St. Johnsbury and the Orleans County Sheriff.

#### **RECOMMENDED ACTIONS**

1. Due to the rural setting of Westmore, a Neighborhood Watch program should be encouraged.

### **22. FIRE PROTECTION**

Fire protection is provided by the Westmore Fireman's Association, with assistance, when needed, through Westmore's participation as part of Northeast Mutual Aid. The Town contributes annually to the Westmore Firemen's Association.

#### **RECOMMENDED ACTIONS**

1. Consult with the local fire departments to ensure their needs are adequately met.
2. Maintain existing dry hydrants.
3. Encourage Westmore residents to become involved with the existing fire association and to become trained in fighting fires.



### **23. SOLID WASTE DISPOSAL**

Westmore is a member of the Northeast Kingdom Waste Management District (NEKWMD). Since the situation with solid waste in Vermont is so dynamic, the Selectboard should continue to stay informed and involved with this issue.

Statewide, diversion rates have stagnated at around 30% to 36% for more than a decade. Act 148 was signed into law in 2015 to introduce sweeping changes to the way we manage wastes.

Act 148 has been phased in over a six-year timeframe to give municipalities and waste districts an opportunity to better align their facilities and services in order to comply with the law. In essence, the Act enforces unit-based pricing (also known as “pay as you throw”) to minimize waste generation, bans recyclables from the landfill. Additionally, all organics – such as food scraps and yard wastes – are banned from the landfill by 2020. The NEKWMD reports that 1.35 tons of food scraps were collected at the Westmore Recycling Center in 2016.

### **RECOMMENDED ACTIONS**

1. Westmore will cooperate and participate in the state and regional solid waste disposal activities including such efforts as the reduction of disposables, recycling of as much material as is feasible, enforcement of strict littering laws, and the operation of an efficient waste collection system.

### **24. WATER SUPPLY**

There is no public water supply in Westmore. Numerous free flowing springs, ground water from wells, and reasonably pure lakes, ponds and streams make it possible for residents to depend exclusively upon private sources of water. State and federal regulations of community water systems discourage the creation and expansion of water systems serving relatively congested areas. During periods of extended drought, or severe cold, some residences and farms have experienced water shortage and have been forced to transport water from off-premise sources. In spite of some inconvenience and occasional hardship, there exists a general appreciation of the fact that installation and maintenance of a public water system is impractical from economic and technical viewpoints.

When water is drawn from a well in the ground, it creates a “cone of depression” as the water is removed. New water will fill in the cone as the existing water is drawn out. As many camps on small lots have shallow surface water wells, there is a growing concern about the separation distance of septic systems, leach fields and wells. It is very possible that some wells are drawing inadequately treated waste water. Not only is this practice distasteful, it presents real public health concerns.

In general, water which is located deep in the ground (ground water) is travelling in underground rivers or aquifers. The water originates from “recharge areas” of surface water such as wetlands, ponds, and areas with gravel soils. The recharge areas which restore the water may be a long way from where people pump the water from the ground into a house or barn. Protecting these recharge areas from inappropriate development and pollution is vital to people who drink the water, and assume it is pure.

Availability of water for fire fighting is a problem, particularly in the winter, in many locations. Residents are aware of this problem and many have taken extra precautions, or developed convenient water sources, to compensate for the lack of fire hydrants. The town does now have some dry hydrants in central locations.

### **RECOMMENDED ACTIONS**

1. Westmore shall encourage enforcement of federal, state and local regulations to ensure the highest possible ground and surface water quality standards. In general, protection of Westmore's high quality waters will be a primary consideration in the approval of any future developments.
2. Groundwater recharge areas should be identified and protected from inappropriate development.
3. Prohibit large-scale development that would lead to runoff and ultimately degrade water quality.

## **25. SEWAGE DISPOSAL**

Individual owners have always been responsible for the installation and maintenance of sewage disposal systems that meet existing standards in order to ensure the sanitary protection of the community. In 2007, the State of Vermont took delegation of all enforcement of local potable water and wastewater systems. Systems that were previously considered exempt from state regulation may now require a permit. (*Environmental Protection Rules, Chapter 1, Wastewater System and Potable Water Supply Rules, Effective Sept. 29, 2007*) Some activities that may now require a permit include: construction of single-family residences; construction or modification of a wastewater system or potable water supply; new connections to an existing wastewater system or potable water supply, subdivisions of land; and repair and replacement of a failed wastewater system or potable water supply. Inspection of these systems has only been on the basis of complaints registered by offended parties or by state agencies involved in licensing or approval functions. No public sewer system has ever been considered for essentially the same reasons that a public water system has never been an issue. These two factors are inherent in Westmore's character of being a rural community without the problems associated with high density development.

### **RECOMMENDED ACTIONS**

1. Every effort will be made to ensure that private systems are effective. Enactment and enforcement of state and local standards will be promoted to ensure minimal environmental damage attributable to sewage disposal.
2. Look into ways to assist home-owners in monitoring and updating their septic systems, especially in sensitive areas.
3. If homes are significantly enlarged or the use changes from seasonal to year round, the septic systems must be adequately functioning prior to any local permits being issued.

## **26. UTILITIES**

The only public utilities available to Westmore are electricity and telephone. Installation of natural gas lines is not economically feasible resulting in a dependence on propane, fuel oil or wood for heating. Barton Village Electric Department supplies power to most of the town with the southern and eastern fringe areas supplied by Lyndonville Electric Department. Constant attention is required to ensure that existing equipment is maintained and upgraded so that the power available keeps up with the increasing demand. Telephone service is provided by Fairpoint through its Barton exchange for most of the town, with fringe areas covered by the West Burke, Charleston, or Island Pond exchanges.

#### **RECOMMENDED ACTION**

1. Individual and collective efforts to ensure reliable high quality utility service is provided to all residents should be encouraged. The environmental impact of providing such service will be minimized, and the cost of extending such service will be borne by the beneficiaries of that extended service.

#### **27. MUNICIPAL BUILDINGS**

The Town of Westmore owns several public buildings including the Old Schoolhouse, recently converted into new municipal offices, the old Town Clerk's Office, the Town Garage and Fire Station, and the transfer station. Public meetings are held in the church's community building, the new municipal building, and the old Town Clerk's Office.

#### **RECOMMENDED ACTION**

1. The Town depends on using the church's hall for community meetings. Therefore the relationship between the Church and Town is a very important one to maintain.

#### **28. ADMINISTRATIVE AND MANAGEMENT SERVICES**

Westmore has relied upon the town clerk, selectboard, school board members, road commissioner or road foreman, listers and auditors for the performance of all town administrative and management functions. With the increase in the scope and number of tasks mandated by increasing governmental regulations, a growing population, real estate transfers and other activities, the requirements for expanded administrative and management services have resulted. This expanded workload has been absorbed by increasing the time and effort expended by the elected officials and by volunteers. Also, advantage has been taken of available advisory services provided by such organizations as the Vermont League of Cities & Towns and the Northeastern Vermont Development Association. However, there is a very high likelihood that the administrative and management workloads will continue to grow and that consideration will have to be given to ways of handling it. Possibilities include the hiring of additional part-time staff, and purchase of additional computerized office equipment.

#### **RECOMMENDED ACTIONS**

1. Westmore shall provide the administrative and management services needed for the efficient operation of the town.
2. The Town of Westmore should encourage the discussion of municipal issues ie. creative

educational possibilities, lake quality, and economic development.

## **29. ADJACENT COMMUNITIES**

Westmore depends on the adjacent communities for many services. The Town depends on a mutual aid agreement for fire fighting, children go out of town for their education, and many jobs that residents rely on are in another community. Westmore has always maintained an excellent relationship with our neighbors, a relationship that should continue.

Westmore is surrounded by six communities: Sutton, Newark, Brighton, Charleston, Brownington, and Barton. Of those communities, only Sutton, Barton, and Brighton have adopted zoning bylaws. Brownington's Town Plan will expire in 2020. Charleston's plan expired early in 2018, giving the town no say in developments that are subject to Act 250 and Section 248, even though such developments may have an impact on Westmore's viewsheds recreation opportunities, environmental integrity, and economic livelihood. Newark, while it has no zoning, recently adopted a plan that recommends special consideration to the following areas:

- The ridgeline historically known as Hogback Mountain, which consists of Walker Mountain, Hawk Rock, and Packer Mountain
- The high-elevation areas along Newark Street, Abbott Hill Road, Pinnacle Road, Spruce Ridge Road, Maple Ridge Road, and Kinney Hill Road
- The town's ponds including Newark Pond, Center Pond, Beck Pond, Walker Pond, Sawdust Pond, and Brown Pond
- The towns rivers and streams including the East and West Branch of the Passumpsic, Bean Brook, Sleeper Brook as well as the smaller tributaries, wetlands, and vernal pools.

The plan also states that "commercial and industrial development at elevations greater than 1,700 should be strictly avoided."

Sutton's plan also voices concern over development in high elevation areas. Norris Mountain and adjacent summits, and the higher elevation summits and ridgelines in the Willoughby State Forest, are not seen as areas that are appropriate for wind energy development due to "their visual impact, their accompanying noise, their potential impact on wildlife and the environment, and their impact on property values". The plan also recommends that any development above 2,000 feet in elevation not exceed 100 feet in height. Finally, the plan discourages the erection of wind towers on lands above 2,000 feet.

## **30. IMPLEMENTATION PLAN**

The plan recommends many different actions to work toward our vision for the future. The implementation plan lists each recommendation and suggests a time frame in which it will be accomplished. Since planning is a dynamic process, the priorities may change somewhat over

time.

The priorities are: 1=2018, 2=2019, 3=2020, 4=2025, 5=ongoing.

PC= Planning Commission, S=Selectboard, L=Listers, CC=Conservation Commission, EC=Energy Committee, RC=Recreation Committee, LA= Lake Association, ZA=Zoning Administrator, ZBA=Zoning Board of Adjustment, HO=Health Officer

Note: These are abbreviated versions of the recommendations. For the full text, please refer to the section within the plan.

ACTION	WHEN	WHO
<b>WATER QUALITY</b>		
1. Erosion control standards should continue to be enforced.	5	ZA
2. Work closely with the lake associations to encourage the maintenance of water quality in the lakes.	5	PC/S/CC
3. Work together to encourage reestablishment of native vegetation along the lakes and ponds.	5	PC/LA/ZA
4. Areas with great potential for flash floods should be identified and residents be made aware of the potential hazards.	5	S
5. Assemble and have available information on existing laws regarding use of the lakes in the winter.	5	PC
6. Inform the Water Resources Board about the growing concern over the use of the lakes in the winter.	5	PC, HO
7. Monitor water quality.	5	LA/HO
8. Monitor and control aquatic nuisance weeds.	5	LA/SB
9. Prohibit development that would significantly contribute to runoff.	2	PC
10. Prohibit commercial and residential development with a density greater than one single-family dwelling per 10 acres in high elevation areas.	2	PC
<b>FLOOD RESILIENCE</b>		
1. Identify and protect Westmore's natural flood protection assets, including floodplains, river corridors, other lands adjacent to streams, wetlands, and upland forested cover.	2	PC/S
2. Areas with great potential for flash floods should be identified and residents be made aware of the potential hazards.	2	PC/S
3. Adopt flood hazard regulations that at a minimum, ensure eligibility for flood insurance through the National Flood Insurance Program.	2	PC/S
4. Review and evaluate statewide river corridor information. Consider adopting regulations that will protect erosion prone areas for additional development and encroachment.	2	S
5. Maintain and regularly update the Local Emergency Operations Plan.	5	S
6. Continue to meet the VTrans Road and Bridge standards.	5	S

7. Participate in regional road foreman trainings and Transportation Advisory Committee meetings to stay abreast of flood resilience measures for the Town's roads and bridges.	5	S
8. Continue to update the Town's transportation infrastructure information in the Vermont Online Bridge and Culvert Inventory Tool.	5	S
9. Replace undersized and failing culverts.	5	S
10. Develop a Local Hazard Mitigation Plan.	2	S/PC
<b>AGRICULTURE</b>		
1. Actively support and encourage the maintenance of the State of Vermont Use Value Appraisal Program (Current Use).	5	L/S/CC/PC
2. Assist and support landowners seeking ways to keep land open while remaining economically viable.	5	CC/PC
3. Follow closely the alternatives brought forward in the Legislature regarding property tax reform; monitor the impact they might have on the town.	5	L/S/PC/CC
4. Recommendations should be developed for applicants seeking to convert active farmland to non-agricultural uses.	5	PC
5. Promote workshops and buy written materials on land conservation techniques and creative ways to subdivide and/or develop land that minimize the impact on the agricultural resources, estate planning, and the Current Use Program.	5	CC
6. Work with non-agricultural landowners to stabilize lease agreements and conserve their lands which are vital to the farming community.	5	CC/PC
7. Consider establishing a local land trust.	5	PC/CC/LA
8. Consider setting up a conservation trust fund.	5	PC/CC/LA
9. Encourage ongoing education about diversifying farming.	5	CC/PC
<b>FORESTS</b>		
1. Encourage individual landowners to consider working with a knowledgeable forester to draw up a forestry plan, such plans should consider sustainable harvesting techniques, timber stand mix, and continuous renewal of the forest resource.	5	PC/CC
2. Encourage new development to use creative ways to develop land with the least impact on the resource such as encouraging creative development.	5	PC
3. Promote workshops and buy written materials on land conservation techniques and creative ways to subdivide and/or develop land.	5	PC/CC
4. Actively support and encourage the maintenance of the State of Vermont Use Value Appraisal Program (Current Use).	5	S/L/CC/PC
5. Assist and support landowners seeking ways to keep land open while remaining economically viable.	5	CC/PC
6. Amend bylaw with regard to development on ridgelines.	2	PC
<b>NATURAL AREAS, WETLANDS, WILDLIFE</b>		

1. Encourage a local conservation fund which can be used for conservation projects.	5	PC/CC
2. Promote workshops on natural resources management, estate planning, woodlot management, and land conservation techniques.	5	PC/CC
3. Contact local sports clubs to assist in identifying areas important to wildlife such as deer yards, beech stands, and spruce/fir forests.	3	PC/CC
4. Provide information and education about the function of wetlands and the Vermont wetland Rules. Work on identifying wetlands in Westmore and notifying landowners of the location of wetlands to avoid problems at a later date.	5	PC/CC
5. Prohibit commercial and large scale residential development that would have undue adverse impact on wildlife.	2	PC
<b>STATE LANDS</b>		
1. Remain involved with writing the long term management plan for the State lands.	5	PC/S/CC
2. Encourage frequent contact with the State officials to make our interests known.	5	PC/S/CC
3. Encourage the State officials to come to town and meet with local residents.	5	PC/S/CC
4. Work with the State to come up with a solution to the mooring problem at the south end of Willoughby Lake.	1	PC
<b>SCENIC FEATURES</b>		
1. The visual impact of proposed commercial or large residential developments must be considered prior to construction or granting the necessary permits.	5	PC/ZBA
2. The importance of the ridgelines in Westmore must be considered in evaluating the appropriateness of any commercial or large residential development.	5	PC/ZBA
<b>HISTORIC FEATURES</b>		
1. Maintain an inventory and consider a preservation plan for the historic and cultural features.	4	PC
2. Encourage and assist property owners to list their structures on the historic registers.	5	PC
<b>EDUCATION</b>		
1. Encourage the parents of the town to be active in school decisions and to reconsider periodically, the possibilities of having a town school or forming an elementary union district with one of the two main schools our students attend, thus giving representation on said school board.	5	SB
2. Planning Commission will supply the School Board with information about population projections and other items as requested.	5	PC
<b>HOUSING</b>		
1. Study the feasibility of adopting a Transfer of Development	3	PC

Rights program within the Zoning Ordinance.		
2. Study state and local subdivision regulations.	5	PC/ZA/ZBA
3. Inform residents about federal and state programs for weatherizing, rehabilitation and home financing by making the information available through the town clerk zoning administrator.	5	PC/CC
4. Ensure the current zoning bylaw does not needlessly discriminate against affordable housing through requiring excessive lot sizes or building standards.	5	PC
5. Be aware of the current and future housing needs of the retired and elderly.	5	PC
6. Conduct periodic reviews of the number of mobile homes on rented lots within the town because a disproportionate increase in this type of housing may indicate a lack of alternative affordable housing in the community.	5	L
<b>TRANSPORTATION</b>		
1. The Town shall cooperate with other agencies in maintaining an efficient infrastructure supporting travel required by residents to use facilities and services within the town and in other localities.	5	S
2. Westmore shall maintain the town highway system in safe and usable condition. Extension of the town road system shall be made entirely at the expense of potential users of the extensions.	5	S
3. Westmore shall cooperate with other communities to encourage the availability of public transportation in the area.	5	PC
4. Permits for new development shall be contingent upon demonstrating that adequate parking will be available.	5	PC
5. Westmore shall encourage the development of better bicycle-pedestrian pathways.	5	PC
<b>ENERGY</b>		
1. Support the efforts of the Westmore Energy committee and its public outreach efforts on conservation and weatherization efforts.	5	PC, S
2. Pursue and publicize efficiency and fuel switching incentives as appropriate (e.g. Tier 3, Efficiency Vermont rebates, etc.)	5	EC
3. Explore fuel switching options for the Town Clerk's office, such as a pellet stove or a heat pump.	1	EC
4. Work with the zoning administrator to ensure that all zoning permit applicants have a copy of the Vermont Residential Building Energy Standards.	1	EC
5. Consider adopting stretch energy codes.	3	PC
6. An energy audit for the Westmore Town Clerk's Office was completed in 2011. Energy audits should be completed on other public buildings in town, and audits of private buildings should	5	EC, S



be encouraged.		
7. Energy efficiency should be encouraged through green and efficient building techniques, use of Energy Star appliances, efficient lightbulbs.	5	EC
8. Encourage car and van pooling by providing a parking area for commuters.	2	EC, S
9. Establish an EV charging station in the Village area. Consider pursuing Village Center designation, which would make funds available for doing this, as well as other projects.	1	EC, S
10. Establish a town policy that when new roads are built or existing roads are reconstructed, provisions are considered for a bike lane and/or walking path along the road.	2	PC, S
11. Promote small woodlot management practices which would supply locally grown wood fuel.	5	EC
12. Encourage residents and commercial establishments to use the least number of outside lights required to ensure safety.	5	EC, PC
13. Consider installing automatic vehicle location equipment in all town vehicles to improve efficiency.	2	EC, PC
14. Work to improve telecommunication and internet infrastructure so that more people can work from home.	5	EC, PC
<b>RECREATION</b>		
1. The town should continue involvement in promoting a mooring management plan for the lake.	5	PC
2. The Recreation committee and North Beach committee should be encouraged to work specifically on recreation issues.	5	S
3. Notify the State of Vermont agencies that the planning commission should be included when corresponding with the town of Westmore on issues concerning the lakes, ponds, and any other environmental or developmental issues in the town.	5	S
4. The Town of Westmore should actively support strengthening the liability laws protecting landowners for allowing public access to their private lands.	5	S/PC
5. Amendment bylaw with regard to development on the ridgelines.	2	PC
<b>ECONOMIC DEVELOPMENT</b>		
1. Create an inventory of the existing and potential recreational opportunities.	4	PC
2. Encourage a diversity of sustainable uses which would allow variety of low-impact commercial and recreational uses in different areas.	1	PC
3. Inform local entrepreneurs about the availability of small business development services and funds.	5	PC

4. Encourage a diversity of local commercial and service enterprises which use local labor.	5	PC
<b>HEALTH FACILITIES</b>		
1. Home health care should be encouraged.	5	PC
2. Periodically Westmore and surrounding towns should consider whether to establish a local health care center.	5	PC/S
<b>SECURITY SERVICES</b>		
1. Neighborhood Watch program should be encouraged.	5	LA
<b>FIRE PROTECTION</b>		
1. Consult with the Westmore Fireman's Association and other fire departments to ensure their needs are adequately met.	5	S
2. Maintain existing dry hydrants in ponds.	5	S
3. Encourage Westmore residents to become involved with the existing fire association and to be trained in fighting fires.	5	PC/S
<b>SOLID WASTE</b>		
1. Cooperate and participate in the state and regional solid waste disposal activities.	5	S
<b>WATER SUPPLY</b>		
1. Encourage enforcement of federal, state and local regulations to ensure the highest possible ground and surface water quality standards.	5	CC/PC, HO
2. Groundwater recharge areas should be identified and protected from inappropriate development.	5	PC
<b>SEWAGE DISPOSAL</b>		
1. Every effort will be made to ensure that private systems are effective. Enactment and enforcement of state and local standards will be promoted to ensure minimal environmental damage attributable to sewage disposal.	5	PC, HO
2. Look into ways to assist home owners in monitoring and updating their septic systems.	5	PC, HO
3. If homes are significantly enlarged or the use changes from seasonal to year-round the septic systems must be adequately functioning prior to any local permits being issued.	5	ZA/PC, HO
4. Prohibit large-scale development that would lead to runoff and ultimately degrade water quality.	5	PC
<b>UTILITIES</b>		
1. Individual and collective efforts should be encouraged to ensure that reliable high-quality utility service is provided to all residents.	5	PC
<b>MUNICIPAL BUILDINGS</b>		
1. The Town depends on using the Church's hall for community meetings. Therefore the relationship between the Church and the Town is a very important one to maintain.	5	S
<b>ADMINISTRATIVE AND MANAGEMENT SERVICE</b>		

1. Provide the administrative and management services needed for the efficient operation of the town.	5	S
2. The Town of Westmore should encourage the discussion of municipal issues, i.e. creative educational possibilities, lake quality, and economic development.	5	S/PC/LA

