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Town of Jamaica, Vermont
2025 Town Plan

Town Plan Adopted by the Jamaica Selectboard on _____

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Jamaica Town Plan – Table of Contents

I. INTRODUCTION

Overview

This plan, like all plans, is a work in progress that builds on past planning efforts. It represents hours of discussion, thoughtful deliberation, and interaction between citizens, Selectboard members, and Planning Commissions past and present. Municipalities are required to review, update as necessary, and adopt their Town Plans every eight years. The Jamaica Planning Commission applied for and received a Municipal Planning Grant from the Vermont Department of Housing and Community Development to undergo thorough study and community involvement to assist in the rewriting of this version of the plan. Planning support and technical assistance was provided throughout by the Windham Regional Commission.

A variety of outreach efforts were used to gather public input that helped the Planning Commission in updating the plan. The Planning Commission developed a community survey that was available online and at the Town Office in August and September 2024. The survey included questions on housing and commercial needs, public services, community goals, and asked about general impressions on what is working well in Jamaica and areas where improvements are needed. A total of 169 survey responses were received from both year-round and part-time residents. Results from this survey and past relevant community surveys are referenced in the plan.

A public kick off meeting was held in October 2024 at the Town Office. The meeting provided an overview of the Town Plan update process and the results of the community survey. The Planning Commission met regularly from the fall 2024 through the spring of 2025 to review and make updates to each chapter of the plan. Meetings were open to the public and the Planning Commission welcomed input during this process. We are grateful to the community for their participation, vision, and guidance and have used the information collected during the development of this Town Plan. Through the public engagement process, four overarching community goals were identified:

1. Community members want to see a vibrant and appealing village with businesses and services that meet the community's needs, that can sustain local businesses, and provide gathering spaces that help build community.
2. Community members want to protect the town's rural landscape, natural and recreational resources, scenic views, and peace and solitude.
3. Community members want to ensure there is adequate housing, community and educational services, and broadband and cellular service in order to support and retain Jamaica's existing community members and welcome in new residents.
4. Community members want to create a more resilient community that has the infrastructure and plans needed so that the town and residents are prepared for future floods and other hazards.

Purpose of the Town Plan

The Jamaica Town Plan provides a comprehensive statement about where we are as a community today and our goals and needs for the future. Adoption of the Plan represents a community decision about the future character of the Town and priorities for land use and conservation of natural resources. It is the purpose of the Plan to help the Town achieve its shared vision and values through the development of goals, policies, and priorities. The Plan also directs state agencies to take only those actions in Jamaica that are compatible with the goals and policies of the Town Plan.

The Plan also serves to increase the amount of local control over future development in Jamaica by:

- Allowing the citizens of Jamaica to recommend how a variety of issues may be resolved or acted upon before they arise through the municipal decision making process. The plan is a commitment by appointed and elected officials to try and resolve issues according to the direction that has been established in the Town Plan by the people of Jamaica.

- Providing a basis for the development and interpretation of Town bylaws, regulations, and ordinances. Future decisions and local laws should be consistent with the direction set forth in the Town Plan.
- Establishing policies that will be considered in regional and state planning efforts, and for the issuance of permits under Vermont's Land Use and Development Act (Act 250) and Certificates of Public Good (Section 248) from the Public Utility Commission.
- Directing the Planning Commission to develop work programs that address the issues, tasks and studies suggested in the Town Plan.
- Serving as a source of information for the Planning Commission, Selectboard, Zoning Board of Adjustment, citizens, and businesses.

Planning Process Goals

The planning process is continuous and requires ongoing contributions from citizens, community leaders, and volunteers. The following planning process goals from State statute will guide the Town in obtaining local input and participation when evaluating important planning issues:

- Establish a coordinated, comprehensive planning process and policy framework to guide local decisions.
- Encourage citizen participation at all levels of the planning process, and to assure that decisions shall be made at the most local level possible commensurate with their impact.
- Consider the use of resources and the consequences of growth and development for the region and the state, as well as the community in which it takes place.
- Assist adjoining municipalities to develop and implement compatible Town Plans.

II. COMMUNITY PROFILE

History

Sculpted by the last ice age, the topography of Vermont was forever altered. Glaciers gouged out valleys and carved mountains that were much steeper and higher than they are today. Erosion led to fertile valleys in the lowlands and to the rocky terrain that characterizes much of the area now known as Jamaica. In Jamaica one can find gneiss rock formations such as Ball Mountain and Attridge Mountain. High terraces above the West River reveal banks of ancient glacial streams. These are a testament to the extraordinary forces that shaped the environment we enjoy today.

The Abenaki people lived in this area of Vermont prior to European settlement and depended on seasonal hunting, fishing, gathering, and agriculture. Early travel routes passed through the Jamaica area, beginning at the Connecticut River and following the West River. These routes followed the rivers across the mountains eventually to Otter Creek and north to Lake Champlain.

In the colonial period, what is now Vermont was disputed territory, with land claims arising from both New York and New Hampshire. The original grants for this area were issued by the Royal Governor of New York in 1767 and 1772 and were for two towns. In 1777 the Independent Republic of Vermont was established and in 1780, ignoring the previous grants, gave charter for "a tract of vacant land within this state which has not heretofore been granted." The Charter goes on to say "that the same be and is hereby Incorporated into a Township by the name of Jamaica." The grant encompassed forty-two square miles. The land lies at an altitude ranging from 688 above sea level along the West River to 2,542 feet on The Pinnacle. There were sixty-seven grantees listed on the Charter, and many of those names can be found among Jamaica's residents today. Jamaica is one of only two civic entities in Vermont whose modern name is derived from a Native place name, in this case the Natick word for "beaver."

The earliest settlement of the town was along the West River near the Wardsboro Bridge, now called East Jamaica. It was here that the first school was established in 1791. The step-by-step building of roads and bridges pointing towards Manchester to the northwest moved settlement westward so that by 1800 it appeared that the town center was moving. Within the forty-two square-mile township of Jamaica there developed as many as ten separate hamlets surrounded by outlying farms, all linked to Jamaica Village by a network of roads. Eventually there were as many as 14 one-room schools which served the families in the outlying areas.

In the first quarter of the 19th century, Jamaica Village assumed increasing importance as a center, largely for topographical reasons. Located near the confluence of the West River and Ball Mountain Brook, the area offered a strategic location for bridges, dams and mills. Along Ball Mountain Brook alone there were numerous dams, each providing power for at least one mill. The first store "Noon House" was built in 1803. The popularity of "Noon House" led to the building in 1814 of Jamaica House, which provided a convenient overnight spot for travelers at the mid-point between Manchester and Brattleboro.

The economy of Jamaica, like that of so many Vermont communities, prospered with the introduction of Merino sheep in the early 19th century. The Spanish sheep flourished on the rocky hillsides, and as their numbers increased, open land and bare hillsides replaced the forests which had characterized the earlier landscape.

Prosperity did not last. The depression that followed the Civil War and the decline in the wool market took their toll on the local economy. Population decreased. The rivers that had propelled the economy also ravaged its infrastructure. In 1869, a great flood carried away "a mile of bridges" and damaged every dam on Ball Mountain Brook. During this period, Jamaica and other towns in the West River Valley

bonded together in a venture that was seen as the salvation of the area's economic woes, the West River Railroad. Originally chartered in 1867, the proposed railroad was to run from Brattleboro to Whitehall, NY. In 1877, financing provided by the valley towns moved the languishing project forward with the first segment from Brattleboro to Londonderry. Although it was never extended further, the railroad provided valuable public transportation for the lower West River Valley until the 1930s, by which time automobile ownership had become almost universal.

The high fields once grazed by sheep have returned to forestland. The mills and dams that once fueled the local economy are gone. Gone, too, are most of the hamlets. East Jamaica, Rawsonville, and Jamaica Village remain as the population and business centers of the Town. The basis of our economy has shifted dramatically, but our land and streams and our historic village remain. In 2006, the Town of Jamaica applied for and received Village Center designation status for Jamaica Village from the Vermont Department of Housing and Community Development. The Village Center designation status recognizes and encourages local efforts to revitalize Vermont traditional village centers. Jamaica Village is host to several town festivals, civic and recreational facilities, as well as several local businesses. In addition, the Town of Jamaica was designated as a Historic Village in 1974.

Adapted from Hometown Jamaica by Mark Worthen, a longtime resident of Jamaica.

Rural Character

Jamaica currently reflects more than two centuries of growth and development guided by a wide variety of social, physical, and economic factors. The rural character of Jamaica is a quality of life based upon traditional rural landscapes, activities, lifestyles, and aesthetic values. For the purposes of this plan, Jamaica's rural character is defined by the following:

- Landscape: The rural landscape of wooded hillsides, open fields, uncluttered hilltops and ridges, unimpeded views of the night sky, and ample opportunities for outdoor recreation. It is a landscape where the natural appearance of the landscape dominates and natural processes are largely unaffected by human activity and infrastructure. The visual appeal of these varied elements of Jamaica is one of the reasons people are strongly attracted to the Town.

- Settlement: Jamaica's built environment is characterized by a densely settled, traditional New England village center that contains a collection of historic buildings and public institutions serving as the center for the community. The majority of residences in Jamaica are in a rural setting where inhabitants feel a strong connection to the natural environment. Although the transportation system has increased accessibility, it does not diminish the connection to the land.

Population

The following section provides information on past and current demographic data. Additional data on housing characteristics can be found in the Housing chapter and data on economic conditions can be found in the Economic Development chapter. During the planning process, data trends were analyzed to help inform current condition assessments and recommendations.

Most of the data included in the plan was obtained from the U.S. Census and the American Community Survey. The Census is conducted once every ten years and collects "point-in-time" data. The American Community Survey is conducted year-round to gather "period" data that are five-year rolling average estimates and do not reflect actual counts like population. These estimates are useful when analyzing tends in and telling a general story, but should be used cautiously given the high margin of error.

Similar to many rural towns in Windham County, Jamaica's population peaked in the mid-1800s and then

saw a long period of gradual decline. Beginning in 1960, the population began to slowly increase. The most recent Census completed in 2020 shows that this growth trend has levelled off and the Town saw a small decreased in the number of residents from the previous Census count. As of 2020, the population was 1,005, still significantly lower than the peak population of 1,606 residents in 1860.

Jamaica Population, 1791-2020

Year	Population	# Change	% Change
1791	263	NA	NA
1800	582	319	121.3
1840	1,586	1,004	172.5
1860	1,606	20	1.3
1880	1,252	(354)	(22.0)
1940	567	(685)	(54.7)
1950	597	30	5.3
1960	496	(101)	(16.9)
1970	590	94	18.9
1980	681	91	15.4
1990	754	73	10.7
2000	946	192	25.5
2010	1,035	89	9.4
2020	1,005	(30)	(2.9)

Source: US Census and W. E. Booker

The table below shows the change in population from 2010 to 2020 in Jamaica as compared to surrounding towns and Windham County. Most of the other towns in the area had relatively stable populations with only modest population growth or decline. Stratton and Winhall both experienced more significant population growth during the ten-year period. Part of this may be attributed to the very high percentage of second homes in these two towns and the high number of seasonal residents that moved to Vermont on a temporary basis during the height of the Covid-19 pandemic in 2020.

Population Growth in Jamaica and Surrounding Towns, 2010 – 2020

	2010	**2020**	**Total Growth, 2010-2020**	**% Rate of Growth, 2010 - 2020**
Jamaica	1,035	1,005	(30)	-3%
Stratton	216	440	224	104%
Winhall	769	1,182	413	54%
Londonderry	1,769	1,919	150	8%
Windham	419	449	30	7%
Townshend	1,232	1,291	59	5%
Wardsboro	900	869	(31)	-3%
Windham County	44,506	45,905	1,399	3%

Source: US Census and W. E. Booker

Jamaica's population is growing older, a trend that is occurring across Windham County and the State. The number of residents over the age of 65 grew from 164 to 229 and accounted for 23% of the population as of 2020, up from 16% in 2010. Between 2010 and 2020, there was a decline in both the number of children in Jamaica and the working-age population (ages 20 – 64).

Jamaica Residents by Age Group, 2010 – 2020

	2010		2020	
Age	**Count**	**Pct**	**Count**	**Pct**
Under 19	243	23%	204	20%
20 - 64	628	61%	572	57%
Over 65	164	16%	229	23%

III. LAND USE

Current Land Use in Jamaica

The Town of Jamaica is situated in the eastern foothills of the Green Mountains. It is an area of steep forested hills and narrow river valleys. The Town consists of approximately 31,000 acres, approximately 90 percent of which is forestland. An estimated 70 percent of the forestland is hardwood (such as sugar and red maple, beech, yellow birch, and red oak) and 30 percent is softwood (mainly white pine and hemlock, and at higher elevations red spruce and balsam fir). Most stands represent a mixture of the two. Elevations on Turkey Mountain, College Hill, Mundal Hill, Sage Hill rise to just over 2,000 feet while the Pinnacle reaches 2,500 feet. The little remaining open field land in Town is located along the West River in East Jamaica and Jamaica Village, along the Winhall River in Rawsonville, and at three locations where land is still actively managed for agriculture. These areas and an area near the old hamlet of West Jamaica contain the only sizable areas of relatively flat land in Town.

Much of the development that has occurred in Jamaica is located along or near Vermont Routes 30 and 100. Other developed areas are found along Pikes Falls, West Jamaica Road, Turkey Mountain Road, and in the Cole Pond and West Hill areas. Of the developed land in Jamaica, the principal land use is residential. Most of the commercial development is concentrated in Jamaica Village and Rawsonville. Other commercial development is scattered along Route 30.

Jamaica Village is the Town's cultural, commercial, civic, religious and educational center. Most of the Town-owned facilities are located here as are the church, post office, Masonic Hall, and commercial businesses including restaurants, shops, inns, and bed and breakfasts. The land in Jamaica Village is already heavily subdivided. Most of these existing lots are already developed with one or more residential units, and some contain commercial-residential or multi-unit residential buildings. Of the 156 parcels within the Village, 4.5% are one-tenth acre or less, 45.5% are one-half acre or less, 62.2% are 1 acre or less, and 35.2% are between one and ten acres.

Rawsonville continues to experience commercial improvements including restaurants, specialty outdoor recreation shops, and car service stations that are associated with major regional attractions in the area. Rawsonville presently contains 69 parcels. Of these, 36.2% are one acre or less, 49.3% are one to five acres and the remainder range from five to thirty acres.

East Jamaica hamlet is an area of Town which can support a variety of land uses, including commercial and residential development. Existing commercial uses in the area include a tree service business and a heating fuel and service station, both of which are located on Route 30.

Several platted subdivisions exist in Town which are not yet built-out. The larger subdivisions within this category include Wheeler Woods, Wild Turkey, Gleason Farms, Mountain Acres, Stonehedge, Cole Pond and Strattongate. Many of these subdivisions were completed in the 1970s and 1980s when the area saw a significant increase in development of seasonal homes associated with the expansion of ski resorts in the area. These subdivisions collectively contain approximately 160 lots, a large number of which contain no houses. Most of these subdivisions are in the western part of Town off of Route 30 or Pikes Falls Road.

Much of the total area of Jamaica is not served by maintained roads or public utilities; this has contributed significantly towards keeping these areas undeveloped. These remote areas are primarily used for timber production and recreation. Jamaica State Park and the Ball Mountain federal flood control reservation areas are the most significant undeveloped outdoor recreation areas in the Town. The State Park consists of two parcels totaling 656 acres along the West River and Shatterack Mountain.

The Hamilton Falls Natural Area (owned and managed by the Vermont Department of Forests, Parks and Recreation) comprises approximately 211 acres. The Vermont Department of Forests, Parks and Recreation also owns the conservation area on Turkey Mountain Road which comprises approximately 152 acres.

The Ball Mountain flood control reservoir on the West River and land adjacent to the reservoir and the River are owned by the US Army Corps of Engineers and are available for recreation. With permission of the landowner, privately owned land in Jamaica is also used for recreation. Many of the streams and trails which cross private lands have traditionally been used for informal recreational activities such as hunting, hiking, swimming, skiing, snowmobiling and horseback riding.

Architectural Heritage

Jamaica has a large and rich collection of architecturally significant buildings representing styles from various periods. These structures serve as a link to our past and help strengthen our local economy by increasing property values, promoting investment, and contributing to the scenic character of Jamaica. Many of these buildings are located within the Main Street State Historic District in Jamaica Village. It is important that the Town should preserve its historic buildings as important principle in guiding growth. Considerable care should be taken to preserve this heritage.

Night Sky

In most populated areas, being able to enjoy the night sky is becoming a rarity. Residents and visitors to Jamaica are fortunate in that they can enjoy the night sky. The overuse of lighting can be harmful to Jamaica's rural character. It can also be detrimental to road safety (through distraction and glare), energy conservation, and wildlife interests. Appropriate lighting can prevent private and public nuisances and protect property value.

Campgrounds and Campsites

Campgrounds are camping facilities with more than four sites and potable water and wastewater facilities. Campsites are those with four or less sites, and dependent campsites are those campsites of three or less sites without potable water or wastewater facilities. It is becoming a popular trend to make these camping facilities into "glamping" facilities, luxury facilities with high end amenities. While Jamaica welcomes the development of campgrounds and campsites in its undeveloped areas, they are not considered to be related to the primary natures of its residential and mixed residential-commercial areas.

Land Use Plan

The Land Use Plan descriptions and policies represent a vision for the use and development of the lands in Jamaica, and the means to realize this vision. The Future Land Use Map (included in Appendix C) depicts the areas that are described below. Jamaica's Land Use Plan is greatly influenced by the existing land use, natural and cultural resources, and transportation patterns. Within all Land Use Districts, specified maximum development densities shall be calculated using the Gross Land Area method. That is, the total number of units that can be developed on a parcel shall be calculated using the total area of the parcel, including land with site limitations as indicated in this Plan.

Conservation Areas

Conservation Areas are those areas that have unique or outstanding natural resource value, or are characterized by significant site limitations to development, such as critical wildlife habitat, forest blocks, wetlands, high elevation and steep slope lands, remote stream corridors and ponds, and scenic areas such as prominent ridge lines which are currently essentially undeveloped or without public road access.

These areas should be withheld from intensive development and restricted to development densities low enough to maintain resource values and clustered to maintain maximum open and undeveloped land and

to promote contiguous, unbroken habitat. Overall development density in these areas should not exceed one unit per 27 acres, equivalent to an overall density of 3.7 units per 100 acres, except in situations where it is clearly demonstrated that development to that density would seriously jeopardize a resource of special value.

Developers should consider using the "cluster design" principle. Cluster development is a type of subdivision design that locates the same number of houses on smaller lots to allow the remainder of the site to be used for agriculture, forestry, private open space, natural resource protection or similar open, undeveloped uses. Location of the developed and open areas should be based on the characteristics of the specific site. Developers should also be encouraged to locate house sites close to existing roads and minimize the length of driveways and private roads to discourage forest fragmentation.

Because of their cultural and natural significance, some areas within the Conservation Areas are more sensitive to development than others. Two types of overlay areas have been identified superimposed on the Conservation Areas and are shown on the Future Land Use Map. Below is a description of the overlay areas:

Conserved Land Overlay
Conserved lands are defined as lands in Jamaica that are either publicly or privately conserved. Publicly-owned lands are land primarily used for recreation, forestry, or open space with the majority of land being in an undeveloped state. In Jamaica, these lands include lands administered by the US Forest Service, US Army Corps of Engineers as well as State Parks and Town owned forestland. Also included in the conserved land overlay is privately-owned land with a conservation easement. Most conservation easements are held by the Vermont Land Trust or the Nature Conservancy. Lands with conservation easements are not necessarily open to the public. However, they are grouped with the publicly-owned lands because they indicate a high level of commitment to preserving the ecological values of the land. Generally, all uses other than agricultural and forestry uses are not permitted in this overlay area, unless otherwise allowed for on State or Federal lands or by the conservation easement on private land.

Scenic Hill or Ridgeline Overlay
There are several important scenic hills and ridgelines in Jamaica identified on the Special Sites and Areas map. Many of these areas are already publicly or privately conserved, but there are several that are not permanently conserved. In order to sustain Jamaica's rural and scenic character, these landscapes must be preserved. The Future Land Use map includes a Scenic Hill or Ridgeline overlay that corresponds with those areas identifies on the Special Sites and Areas map. Residential, commercial, and industrial uses are not encouraged in this overlay area and development is prohibited on prominent ridgelines and peaks. Any development that occurs in these areas should avoid fragmentation of large tracts of land and be designed to have no impact on the special resource value of the area.

<u>Rural Resource Areas</u>
Rural Resource Areas are those areas with high resource value such as accessible buildable land, agricultural land, productive forestland, wildlife habitat, and similar resource land. These areas should be developed for residential, commercial, recreational or open space uses only at densities low enough to protect their resource values and to minimize demands on Town and other public services.

As in Conservation Areas, developers in Rural Resource Areas are encouraged to utilize low impact development practices in order to maintain the rural character of the area. One example of low impact development is to cluster units in locations more favorable for development and to balance this with larger conservation lots elsewhere. This approach can also reduce the need for costly infrastructure investment and maintenance. Encouraging homes to be situated close to roads reduces the amount of forest fragmentation and natural resources impact from building and driveway construction. Because

much of the land within Residential Areas has been developed, it is anticipated the Town will see more development pressure in Rural Resource Areas and implementing low impact development practices will become more critical.

In Rural Resource Areas, the average density within each parcel proposed for development should not exceed one unit per 5 acres, equivalent to an overall density of 20 units per 100 acres. Uses other than residential should be situated on lots of sufficient size to prevent adverse impacts such as noise, light, vibration, odor, and visual impact from affecting adjacent properties.

Within both the Conservation and Rural Resource Areas, development of each parcel, up to the average density specified for the district, should be situated so as to minimize extension of town infrastructure and the provision of services and maximize the protection of the resource values of the parcel proposed for development.

Residential Areas

Residential Areas are lands that are already committed to primarily residential development. They are located within close proximity to Routes 30 and 100 and near existing villages and services. These lands do not contain significant amounts of high value natural resource lands and have been able to accommodate moderate density development, generally in the form of residential subdivisions. Several of these subdivisions have vacant lots that may be able to developed if sites can provide for potable water and on-site septic system.

These areas should be developed for residential, commercial, recreational or open space uses as long as they relate to and are compatible with the primarily residential character of the area. Campgrounds and campsites are not suitable uses in these areas. Impacts from non-residential uses, such as noise, light, vibration, and odor, should be mitigated. Average development density of parcels within these areas should not exceed one unit per two acres of land.

To prevent the undesirable effects of "strip" development, new construction within these districts should be clustered and carefully planned and designed so as to minimize the number of new access points to the highways. In order to minimize adverse impact on the scenic qualities of the highway corridors and to integrate with the existing residential and commercial uses, new development should provide for landscaping and screening.

Commercial-Residential Areas

Commercial-Residential Areas are lands bordering or situated in relatively close proximity to Routes 30 and 100 and having site characteristics generally suitable to relatively high-density commercial and residential development. They are located close to existing transportation, electric and telecommunication infrastructure needed for new commercial development. To maximize density of development in these areas, buildings are encouraged to have shared septic systems and/or wells. Average development density of parcels within these districts should not exceed one unit per two acres of land.

To prevent the undesirable effects of "strip" development, new construction within these districts should be clustered and carefully planned and designed so as to minimize the number of new access points to Routes 30 and 100. In order to minimize adverse impact on the scenic qualities of the highway corridors and to integrate with the existing residential and commercial uses, new development must provide for landscaping and screening and shall be designed to connect to existing sidewalks and shared driveways, parking, and water and/or septic systems. Campgrounds and campsites are not suitable uses in these areas.

Village Areas

Jamaica Village

Jamaica Village is and should continue to be the Town's cultural, civic, social, commercial and residential center. Because the Village is the most densely settled area in Town, new public facilities and services should first be provided here to maintain Jamaica Village as the Town's center. The character of the Village and its sense of Town center is to a great extent created by the cooperative co-existence of commercial and residential land use within a unique setting which is greatly influenced by the predominating architectural styles.

The Jamaica Village District also includes an area just east of the existing Village along Route 100 that is an area that would serve as a natural outgrowth of the traditional center. Identifying and planning for future growth of the traditional village center has become more important as the community has seen increased flood impacts in recent years. Many properties in Jamaica Village are vulnerable to flooding and it is important for the community to be thinking ahead regarding where businesses, services, and homes could be located outside of flood risk areas.

Residential uses including, but not limited to, single family dwelling and multi-family dwellings, as well as small, low-impact commercial operations with appropriate buffering in keeping with the village character shall be encouraged. Development should be compact and should provide certain amenities, such as public spaces and lighting, to keep Jamaica Village an attractive and comfortable place in which to live.

New development within Jamaica Village must provide for landscaping and screening and maximize possibilities for pedestrian and bicycle travel. The intent of this is to encourage a mixture of residential and commercial development in a pedestrian friendly setting. This will contribute to the economic vitality of Jamaica while preserving a sense of proportion in the Village center. New development should also be designed to include shared green space, driveways, parking, and shared water and septic systems.

Whenever possible, public investments and state and federal funding/grants shall be utilized to make improvements to, create new or expand existing infrastructure within Jamaica Village. These investments shall be made to support the existing character of the Village, as well as planned growth. As discussed in the Potable Water and Wastewater chapter of the Town Plan, Jamaica is exploring the feasibility of a community wastewater system in Jamaica Village. In recent years, several businesses have closed or have not been able to expand because of wastewater limitations. Providing a community wastewater system for the village is necessary for accomplishing many of the land use goals for this part of the Town.

Average development density in Jamaica Village should not exceed one unit per acre, although it may not be possible to achieve this density in some areas of the Village because of the number of pre-existing small lots and the need to provide for safe isolation distances between leach fields and water supplies. Generally, villages are developed at a much higher density (one unit per 1/8 acre or 1/4 acre). However, due to the water and wastewater limitations previously mentioned, the ability to achieve this higher density is restricted.

In addition, Jamaica Village is a designated Historic District with many attributes that are historically and culturally important. The removal or renovation of these attributes would be inconsistent with the nature of this plan.

Rawsonville

Rawsonville has become a significant commercial district in the Town. Businesses within Rawsonville primarily serve the needs of visitors who are drawn by regional attractions. Continued commercial

development is expected to occur here as these regional attractions expand, and compatible residential uses should be encouraged as well. Average development density within Rawsonville should not exceed one unit per acre. There is an opportunity for Rawsonville to have more of the compact village qualities found in Jamaica Village over time and the guidelines for and limitations to development in Jamaica Village should also be applied to development in Rawsonville.

Land Use Policies:

1. Jamaica Village shall continue as the center of the Town. Future expansion of publicly owned community facilities buildings shall be in the Village.
2. Further development within and adjacent to the Village districts must be carefully planned to minimize adverse impacts on the character of the village, existing water supply and wastewater disposal, and traffic within the villages, and to avoid areas vulnerable to flooding and fluvial erosion.
3. The character of Jamaica Village and Rawsonville is an important asset to the community and shall be maintained by limiting uses within the Villages to those that are compatible with the existing commercial and residential uses.
4. Encourage the restoration and preservation of buildings that contribute to the architectural and historical character of the Town. When such buildings become obsolete, new uses shall be found for them that will preserve the architectural and historic character of the buildings.
5. Lands adjacent to or including areas of historical, educational, cultural, scientific or architectural value, and areas identified on the Special Sites and Areas Map, shall be used in a manner that will not reduce or destroy the value of the site or area.
6. Lands adjacent to existing public land and existing or planned public facilities shall be used in a manner that will not diminish the value of such investments or interfere with their intended uses.
7. Require appropriate site planning and landscape design by siting structures to fit into the natural characteristics of the land and maintaining vegetative buffers along roads and parcel boundaries.
8. Require the use of low impact development strategies (e.g., cluster development, conservation subdivisions, conservation easements) that minimize the fragmentation and loss of agricultural land, forest land, unique or ecologically sensitive areas and special sites and areas.
9. New development in Residential Areas and Commercial-Residential Areas shall be for residential, commercial, recreational, or open space uses that are compatible with and relate to the primarily residential character of the area, including compliance with all applicable potable water and wastewater regulations applicable to the area.
10. Campgrounds and campsites shall not be sited in Residential Areas or Commercial-Residential Areas.
11. Roads, driveways, and utilities shall be designed to avoid the fragmentation of identified natural areas, forest blocks, and wildlife habitat.
12. Encourage the town to purchase or accept donations of rights to properties that have high public value.
13. Scenic hills and ridgelines shall be left in their natural condition, free from all development, including, roads, building structures, utilities, renewable energy facilities, and wireless broadcast and telecommunications facilities.
14. Require developers to incorporate the following in the site planning of commercial facilities: shared access, landscaping, compatible building design, screening, and provisions for pedestrians.
15. Reduce light pollution by using fixtures that direct light below the horizontal plane, utilizing energy efficient lamps, and using light levels appropriate for the use of the property.

Priorities for Action:

1. Evaluate options for the Town's acquisition of public open space land for recreation, conservation, or a Town Forest. (Planning Commission, Selectboard)
2. Assess opportunities to establish green spaces in the village areas. (Planning Commission)
3. Develop a master plan for Jamaica Village that addresses development opportunities, natural

resources constraints, and infrastructure needs with the goal of creating a visionary plan for the village that will implement the goals and policies within the Town Plan. (Planning Commission)

IV. NATURAL RESOURCES

Jamaica is a rural community with exceptional natural resources. Significant water resources, wetlands, agricultural and forest lands, and unfragmented blocks of land support the community's wildlife species, recreation activities, and quality of life.

The primary focus of this section is to identify the natural resources of Jamaica, recognize the role that they play in giving the Town its character, and decide which strategies would best maintain that character while contributing to the long term sustainability of the community. All of the community's resources are interconnected, and any change to one can have a significant impact on the others. The goal of this section is to help develop a balance between development and resource protection within Jamaica that will guide further sustainable development of the community. It is also hoped that this section will alert residents of Jamaica to the importance of the integrity of natural systems for the entire region.

Agriculture

Over the last 225 years, the role of agriculture in the Town of Jamaica has changed dramatically. In 1900 nearly 80 percent of the land area of Jamaica was cleared and used for agriculture. Today, agriculture is not extensive in Jamaica but the remaining agricultural areas are still an important resource that provide local farm products, open space, and contribute to the rural character of the Town.

The largest remaining commercial agricultural operation in Jamaica is located northwest of Rawsonville. Lands in the northeast corner of Jamaica, West Jamaica, and Pikes Falls are still used for hay production. A number of homeowners throughout the town keep horses and/or a few beef cattle, and these utilize small areas of pastureland that remain from what were once larger farms. Small scale agriculture includes gardens and fowl. Some open, level land along the West River in East Jamaica, within the flood easements of Townshend Dam, is used for hay production. Additional open land upstream of this area is restricted from further development, and could be used for agricultural production if the owner desired.

The U.S. Department of Agriculture has identified soil types that are best suited to crop production based on soil quality, growing season and moisture supply. These areas, called prime agricultural soils, are likely to produce the highest crop yields using the least amount of economic resources and causing the least environmental impact. Jamaica's prime agricultural soils are located along the West and Winhall Rivers and Wardsboro and Ball Mountain Brooks.

Agriculture Policies:

1. Engage landowners in protecting natural resources and encourage the management of open lands for farming, forestry and recreation.
2. Encourage agricultural production, including small-scale production and innovative and non-traditional farming operations.

Biological Diversity

Rare, Threatened, and Endangered Species

The Vermont Non-game and Natural Heritage Program has drawn up a preliminary inventory of the plant and animal species that have been listed by either the state or the federal government as being rare, threatened or endangered. These species and communities are considered rare because they have particular habitat requirements, are at the edge of their ranges, or are vulnerable to disturbance or collection. Each rare community that Jamaica harbors contributes in an important way to the overall diversity of the state and larger region. Although some of the listed species are protected to some extent under either Vermont or Federal law, the presence and distribution of these species in the Town are

generally not well known. Therefore, protecting these resources represents a very difficult conservation challenge. Nonetheless, Jamaica recognizes the significant contribution that rare, threatened, and endangered species make to our natural heritage and the health of greater Vermont's environment.

There have been approximately 25 documented occurrences of rare plant and animal communities in and around Jamaica, the majority of which are rare plant communities. The Vermont Non-game and Natural Heritage Program assesses the rarity of species on a global and statewide ranking. There are seven communities which have been ranked as threatened at the state level. The rare plant and animal communities that have been documented in Jamaica are primarily found along the West River upstream of Ball Mountain Dam, Cole Pond, and on either State or U.S. Army Corps of Engineers lands. Forester Pond, a portion of Mill Brook, and segments of the West River that flow into Townshend also host rare plant and animal communities. This data was collected from the Vermont Natural Heritage Inventory Database (current as of spring 2024) and is shown on the Wildlife and Plant Resources map in this plan.

Invasive Species

Invasive plant species have become common in many forests, wetland, and riparian areas in Jamaica. Invasive plants can out-compete native plants for space, nutrients, and light, and result in degraded habitat quality for native plants and animals. An "invasive species" is a species that is non-native to the ecosystem and whose introduction causes or is likely to cause economic or environmental harm. Human actions are the primary means of the introduction and spread of invasive species. As the climate changes and warms, invasive plants are expected to increase in prevalence as well.

According to the 2020 Jamaica Local Hazard Mitigation Plan, the following invasive plant species are of particular concern in town: Japanese Knotweed, Purple Loosestrife, Wild Parsnip, and Giant Hogweed. Japanese Knotweed presents water quality concerns because it out-competes other shoreline vegetation and dies back in the winter, leaving shorelines susceptible to erosion because there is not adequate vegetation to stabilize the stream bank. Sedimentation from erosion degrades water quality and has negative impacts on aquatic species. Planting native plant species in riparian areas after disturbance can help reduce the prevalence of Japanese Knotweed.

Many invasive plant species also grow easily in disturbed areas along roadways and can create right-of-way maintenance issues. The roots from invasive species can cause damage to road and drainage infrastructure and removal by road crews is significantly more difficult. Additionally, invasive plant growth can cause visibility issues along roadways and intersections.

Elevations below 1,500 feet are generally most susceptible to invasive species, though any land with some sort of major disturbance (from wind, flooding, logging, or land clearing and development) could potentially host them. These species commonly spread along major road corridors and waterways. Examples of this in Jamaica would include Route 30 and Route 100, and the West and Winhall Rivers. It is possible to slow down or halt the spread of these species by identifying and removing plants as soon as they appear, but early detection is key since once plants are established they are more difficult to remove and also able to spread seeds. This detection can be aided by educating residents about the identification of and problems caused by invasive species. Resources for residents include the Windham County Conservation District, which provides information for property owners about identifying and proper disposal of invasive plants on their website. Towns can also develop plans to monitor and remove invasive plants from town roads as part of their regular highway maintenance program.

Natural Communities

The Vermont Department of Fish and Wildlife has identified the following significant natural communities in Jamaica: Dry Red Oak-White Pine Forest; Hemlock-Northern Hardwood Forest; Hemlock Forest; Mesic Red Oak-Northern Hardwood Forest; Temperate Acidic Outcrop; Hemlock

Swamp; River Cobble Shore; and Rivershore Grassland. These natural communities are generally clustered in the area of Jamaica State Park, Ball Mountain, and Shatterack Mountain. There is a small area of Dry Red Oak-White Pine Forest on College Hill. According to the Vermont Department of Fish and Wildlife, natural communities are "an assemblage of plants and animals that are found recurring across a specific landscape under similar environmental conditions where natural processes, rather than human disturbances, prevail." These areas, identified by dominant plants, vegetation structure, and major features of the physical environment represent intact examples of Vermont's native flora, fauna, and vegetation. There may be additional natural communities in Jamaica that have not yet been identified.

Significant Wildlife Species

The Town's natural environment supports white-tailed deer. Some areas within Jamaica have been identified as deer wintering areas and are shown on the Wildlife and Plant Resources map. These areas were mapped by the Vermont Department of Fish and Wildlife using aerial photography, infrared aerial photos, and ground confirmation. The mapping of these wintering areas or "deer yards" needs updating as much of the mapping was done in the 1960s and 1970s. Areas identified during the original mapping may have undergone forest cover or land use changes and may not be current deer wintering areas. It is also likely that current deer wintering areas have not been included in the State's data.

Wintering areas can be utilized by generations of deer over many decades if appropriate habitat conditions are maintained. Conserving deer wintering areas is essential to the species survival and is critical to maintaining the resource for recreational activity.

The black bear is native to Vermont and primarily found in remote, forested habitat. In Jamaica, the National Forest Service has conserved 720 acres of land on Sage Hill for its critical bear habitat. Jamaica is also home to a regionally significant black bear travel corridor that has been identified by the Vermont Agency of Natural Resources. This bear travel corridor links Sage Hill to important habitat in neighboring Stratton. Black bear travel corridors are forested habitats that are regionally important and are used by a large number of bears to access critical seasonal foods or to link bear ranges with sub-populations. Travel corridors are comprised of bear travel routes and may include one or more road crossing areas. The Town places a high priority on protecting the resources value of land identified by the Agency of Natural Resources in order to protect this important wildlife travel corridor.

Unfragmented land provides some of the most valuable wildlife habitat, especially when it provides a range of contiguous habitat of many different types (mature forests, wetlands, open fields, etc.) in close proximity. A primary characteristic of unfragmented habitat is the absence of roads. Roads can be a source of mortality and a barrier to wildlife movement. The impact of a road varies depending on its use. Narrow dirt roads that maintain a tree canopy retain a greater degree of forest cover and habitat for many species of wildlife, including birds.

Biological Diversity Policies:

1. Protect all viable occurrences of known rare, threatened, and endangered species. Sites or areas of rare, threatened, or endangered species of plants and animals shall not be developed and shall not be used in a manner that will destroy those species.
2. Ensure the conservation, protection and proper stewardship of significant natural communities. Carefully assess potential impacts of proposed development on significant wildlife habitats in order to preserve such habitats.
3. Prohibit fragmentation of large blocks of significant wildlife habitat and maintain connectivity between habitat blocks as corridors for wildlife migration.
4. Configure and design roads so as to prevent the fragmentation of significant blocks of wildlife habitat and allow for wildlife migration.
5. Prevent the spread of and support efforts to remove invasive species by encouraging the use of

Windham County Conservation District resources by property owners.

Earth and Mineral Resources

Earth and mineral resources in Jamaica consist principally of sand, gravel and uranium deposits. Compared with other parts of the state, sand and gravel resources are limited. There are outwash deposits of stratified sand and gravel, formed when glacial meltwaters sorted sediment and deposited like sizes together along glacial streams or in glacial ponds or lakes.

Locally significant deposits of sand and gravel can be found along the terraces of the West and Winhall Rivers. To a lesser extent, deposits also occur along Ball Mountain and North Branch Ball Mountain Brooks. Though sand and gravel deposits are present along the West River, there are several areas that contain rare and threatened species. Therefore, mining for sand and gravel along the West River with high concentrations of rare or threatened species is strongly discouraged.

Sand and gravel resources are particularly important materials for road construction (see Soil Resources map); however, Jamaica has few excavation sites. Extraction and processing are limited by existing development on or near deposits, the suitability of Town roads and bridges to withstand heavily loaded trucks, and State restrictions on the removal of gravel from streambeds.

The impacts from sand and gravel operations are often cited as concerns. Increased truck traffic, noise, erosion, and airborne particles can create problems for abutters. The use of outwash deposits in commercial sand and gravel operations could alter the performance of these areas as groundwater recharge areas. As material is moved and the geology is altered, water will not be filtered and stored in the same manner.

There is a significant uranium deposit in the vicinity of The Pinnacle. Previous attempts to extract uranium from this area resulted in State legislation requiring legislative approval for future uranium mining in the state. It should also be noted that land uses in this area might result in public health hazards resulting from the possibility of exposure to high concentrations of radon. Although radon is a possible public health concern, Jamaica is not at as high of a risk as other parts of the State. Residents can obtain a free home radon kit and learn more about fixing radon problems by visiting the Vermont Department of Health's website: https://www.healthvermont.gov/environment/healthy-homes/radon.

Earth and Mineral Resources Policies:

1. Require that earth and mineral extraction is carried out in a manner and in locations that result in minimal adverse impact to the environment and character of the surrounding area.
2. Limit the extraction of earth and mineral resources to areas that are not heavily developed.
3. Extraction of earth and mineral resources shall not interfere with or have negative impacts on groundwater, wildlife habitat, air quality (dust and noise), community resources including recreation and special sites and areas, or neighboring property owners. Extraction sites must handle truck traffic without creating unsafe travel conditions on Town roads and bridges.
4. Require those responsible for extracting earth and mineral resources to prepare and implement a site rehabilitation plan that provides for the restoration of the natural and aesthetic character of the land and that ensures a safe, attractive and useful condition of the land.

Forestland

According to Conserving Vermont's Natural Heritage (VT Department of Fish and Wildlife, 2004), nearly 75% of Vermont's forests were cleared for sheep farming and the production of timber resources in the mid-1800s. As the economy changed and people moved west, the landscape began to return to forest. Like the greater setting of the state, Jamaica's landscape has also changed over time. Today,

approximately 28,000 acres (90%) of the Town's 31,000 acres is forested.

The forest cover is quite diverse, consisting of about 70 percent hardwoods and 30 percent softwoods. A major component of our landscape, forests provide timber for wood products, maple sugar, clean water, recreational opportunities and wildlife habitat. Their economic value extends from their resource value. Jamaica's forests values and uses depend on many factors, including the soil type, the quality of forest management, commitment to long term management, forest type, size and accessibility of privately owned parcels, and existing land uses.

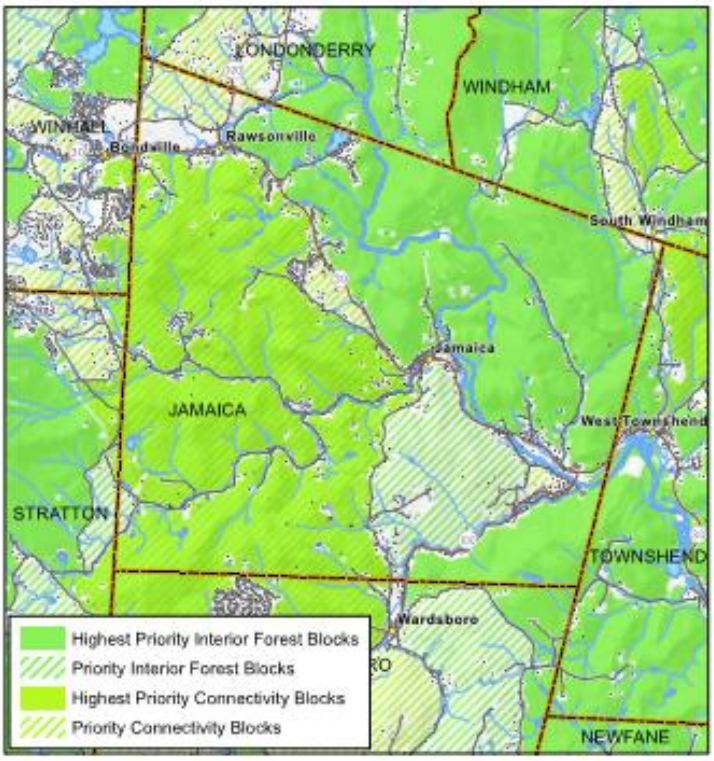
Contiguous Forest Blocks

While it is important to track the resources (or potential resources) in each forest parcel, it is also critical to look beyond parcel lines and understand the entire forest landscape without divisions. Contiguous forest blocks serve many uses and functions including recreation, timber harvesting, wildlife habitat and migration paths, water quality protection, open space, and scenic enhancement. These are all important uses for the residents of Jamaica, both from a quality of life and economic standpoint. Contiguous forest refers to an area of forested land either without roads or with low densities of Class 3 and 4 roads, and little or no human development (buildings, parking areas, lawns, gravel pits).

Contiguous forest blocks larger than 500 acres have a greater capacity of supporting a wider range of resource protection values such as economic forest management, wildlife habitat, outdoor recreation, and water supply protection than smaller forest tracts. It is for this reason that 500 acres is used as a threshold indicator of forest health and forest fragmentation. Many animal species, including the black bear, require large areas of extensive forest or mixed habitat in order to maintain a stable population. Smaller forest tracts can be difficult to manage economically for sustainable timber harvesting and less desirable for hunting and other forms of outdoor recreation. Jamaica has several large contiguous forest blocks which are shown on the Wildlife and Plant Resources Map.

The Vermont Agency of Natural Resources has developed an online mapping tool, BioFinder, that identifies the priority interior forest blocks and habitat connectivity blocks in the state. Interior forest blocks provide the base for healthy forest habitat and ecological function. Connectivity blocks are of greatest importance for wildlife movement and genetic exchange. The forest pattern is the degree to which forest blocks and habitat connectors connect across the landscape within a community and the larger region. A healthy forest pattern is one where large forest blocks connect to one another via smaller forest blocks and riparian areas, interrupted only by minor roads and non-forested land cover.

The map below shows the highest priority forest block and connectivity blocks in Jamaica as well as surrounding communities. Much of the area identified as highest priority forest block corresponds with lands within Jamaica State Park and federal lands around Ball Mountain Dam, as well as Turkey Mountain, Ball Mountain, Shatterack Mountain, and Attridge Mountain. A sizable area of the western and southern part of Jamaica is shown as being a highest priority connectivity block, connecting the spine of the Green Mountains to the west with large forest blocks in the towns of Windham, Townshend, and Newfane. This area includes the Winhall Town Forest parcel and Green Mountain National Forest land between Pikes Fall Road and West Jamaica Road.



The subdividing of large woodland parcels into smaller lots is a threat to Jamaica's contiguous forest blocks. This is a process known as parcelization. In addition to fragmenting plant and animal habitat, parcelization affects people and communities by making it difficult to have a working forest that produces an economic benefit.

Forest Management

Forest management is important to the environmental and economic well-being of Jamaica's forests. Responsible harvesting of forest resources will support the local economy and provide access to local forest products. Considerable care should be taken during both commercial timber cuts and cuts to create open space for development to ensure the conservation of soils by mitigating erosion. Because large forested tracts are another aspect of the rural character of the community, visible clear cuts, either for commercial harvests or for development, should be carefully avoided or buffered. "Viewsheds," the views available to residents and tourists while driving, hiking, etc., and the impact of large clearcut areas on a viewshed are important considerations to maintaining Jamaica's rural character. The maintenance of forested and agricultural views is important and can be accomplished by selective cuts or smaller clear cuts with active replanting.

There are several large parcels currently managed as forest industry lands. For the various functions that these large unfragmented forests have, the Town supports the maintenance of these large blocks of land.

The Use Value Appraisal (UVA) Program (commonly referred to as Current Use) was passed by the State legislature in 1977 to provide greater tax equity for forest and agriculture landowners and to encourage long-term productive use of Vermont's agricultural and forest land. This program allows farm and forest lands to be taxed on their resource production rather than their value for development purposes. The program includes a Land Use Change Tax as a disincentive to develop land.

Use Value Appraisal is currently the strongest incentive for maintaining large blocks of private forest land. Forest parcels enrolled in the program must have a minimum of 25 contiguous acres to enroll in the program (not counting the two acres surrounding any dwelling). The forest land is required to be managed according to the provisions of a 10-year forest management plan that is approved by the County Forester. Agricultural land has a different set of eligibility requirements that are similar to the forest requirements.

According to tax year 2022 Vermont Department of Taxes data, Jamaica had 63 parcels totaling 11,052 acres enrolled in the Use Value Appraisal Program. While Use Value Appraisal reduces the burden for landowners, land can be taken out of the program with payment of a penalty. Therefore, it does not provide absolute assurance of continued open space.

Conserved Lands

Conservation areas are those lands protected for the foreseeable future through either outright preservation by governmental entities or conservation organizations, preservation by land owners, or through conservation easements. Jamaica has approximately 4,132 acres of land that has been set aside as conservation land. Table 3-1 shows the acreage amounts for those lands which are owned outright for conservation purposes. There is an additional 1,294 acres on 13 parcels of private land that have conservation easements. These areas are shown on the Open Space and Conservation Lands Map.

Table 3-1: Significant Conservation Lands in Jamaica

Name	**Acres**	**Owner**	**Comment**
Sage Hill & Blake	1,173	US Forest Service	
US Army Corps of Engineers	580	US Army Corps of Engineers	Several individual parcels of land mostly contiguous
Jamaica State Park, West River/Campground tract	323	State of Vermont	Includes campground and undeveloped portions of the park
Jamaica State Park, Shatterack Mountain Tract	333	State of Vermont	
Jamaica State Park, Turkey Mountain Tract	152.5	State of Vermont	
Hamilton Falls Natural Area	211.5	State of Vermont	
Winhall Town Forest	509	Town of Winhall	
Pikes Falls	16	Town of Jamaica	
Sage Hill	28	Town of Jamaica	
The Nature Conservancy, Turkey Mountain Tract	806	The Nature Conservancy	Connects with Jamaica State Park land.
Source: Jamaica Grand List, and Windham Regional Commission GIS Data			

Forestland Policies:

1. Encourage stewardship for existing relatively large areas of contiguous forest habitat and prohibit parcelization of land. Assure continuity between parcels of contiguous forest within Jamaica's boundaries and those that lie within the surrounding towns.
2. Development that takes place within identified high priority forest blocks and habitat connectivity blocks shall be located at the edges of the blocks in order to reduce fragmentation by roads and land clearing.
3. Roads, driveways, and utilities shall be designed to avoid the fragmentation of identified high priority forest blocks and connectivity blocks.
4. Ensure that the extraction of forest products is carried out in a manner and in locations that result in minimal adverse impact to the environment and character of the surrounding area.
5. Encourage the continued practice of forestry in those areas of Town that are well suited for growing and harvesting timber. Encourage the use of the Windham County Forester's Office to advise timberland owners on tree selection and access routes that will maximize long-term timber value and to minimize erosion and the introduction of invasive exotic species (https://fpr.vermont.gov/CountyForesters)
6. Maintain wildlife habitat, scenic vistas, clean water, and recreational opportunities provided by forestlands.
7. Encourage private landowners to consider protective easements and enrolling in the Use Value Appraisal Program.

Natural Areas

Natural areas in Jamaica are those areas that make a unique contribution to the scenic, recreational and biological resources of the Town. These areas provide such public benefits as scenic views of mountain ridges, popular areas for fishing, hunting, trapping, hiking and important wildlife habitat. The policies provided at the end of this section are intended to apply to all lands described within this section and on the Special Sites and Areas map. Many of these natural areas are on protected lands under State or Federal ownership or private conservation easement and are subject to other use and management policies and regulations.

There are many prominent forested peaks or ridgelines in Jamaica of which the principal ones are shown on the Special Sites and Areas map. The main forested peaks of interest include Ball Mountain, Turkey Mountain Ridge, College Hill, Mundal Hill, Sage Hill, Shatterack Mountain, and The Pinnacle. These peaks and ridgelines provide many important values and uses. They provide a scenic background from various vantage points that greatly contribute to the Town's character. They also provide important wildlife habitat, and serve as the headwaters to many streams. Because the steep slopes of these peaks and ridgelines are primarily undeveloped and heavily forested, the fragile soils of these areas are able to deliver clean water to Jamaica's rivers, brooks and ponds. These areas, however, are very susceptible to erosion.

It is highly desirable that prominent peaks and ridgelines shown on the Special Sites and Areas map be maintained in a natural state and be avoided as sites for buildings, utilities, or other structures. It is also highly desirable that Jamaica's important wildlife corridors be protected or conserved from encroaching development and incompatible activities, such as road expansion or development of new Class 1, 2, or 3 roads. Development should be restrained in and around corridors and these resources should be given high priority in considering lands for acquisition or other long-term conservation efforts. As noted previously, Jamaica is home to a regionally significant black bear travel corridor linking Sage Hill to their habitat in the Town of Stratton. The Town places a high priority on protecting the resource value of land within the area identified by the Agency of Natural Resources in order to protect this important wildlife travel corridor.

Jamaica contains a wide trail network throughout many parts of the Town. All of these trails currently provide important recreational opportunities to the Town's residents and visitors. As land is subdivided or developed it will become increasingly difficult to assemble a trail system of connected footpaths in Jamaica. Also, as public lands or public rights-of-way along the West River are transferred to individual ownership, opportunities for public use will decline.

There are segments of the West River, Mill Brook, Cobb Brook and Turkey Mountain Brook in Jamaica that have no roads within 1,000 feet of the stream for a length of at least one-mile. These stream segments provide remoteness important for wildlife and make an important contribution to the recreational uses of these areas. These segments are shown as undeveloped streams on the Special Sites and Areas map.

There are several unique geologic formations identified on the Special Sites and Areas map that provide important opportunities for recreation and natural history observation. These include the Hamilton Falls Natural Area, Pikes Falls, and the South Windham Gorge.

Natural Areas Policies:

1. Maintain the scenic qualities provided by mountaintops and ridgelines. Discourage highly visible development and extensive clearing of vegetation that would detract from the scenic quality of these mountaintops and ridgelines.
2. Protect the natural character of roadless stream segments.
3. Protect areas shown on the Special Sites and Areas Map and the areas surrounding them from incompatible adjacent land uses which would diminish the benefits and functions they provide.
4. Minimize areas of earth disturbance, grading, or vegetation clearing on slopes between 15% and 25%, bedrock outcroppings, shallow soils, or probable areas of shallow and wet soils.
5. Prohibit construction of roads and structures in areas predominated by slopes exceeding 25%.

Water Resources

Rivers and Brooks

There are approximately 104 miles of waterways in Jamaica. The West River is the only major river in Jamaica. Its course through the Town extends for nine miles. Small rivers include the Winhall River, Ball Mountain Brook (below the North Branch), and Wardsboro Brook. There are approximately l6 miles of major brooks. These include Mill Brook, Cobb Brook, North Branch of Ball Mountain Brook, Ball Mountain Brook (above the North Branch) and Turkey Mountain Brook. Additionally, there are numerous small brooks, only a few of which are shown on the Town Plan maps.

The quality of surface water in Jamaica is generally very good. Except for short periods after rainstorms, most brooks and small rivers appear to meet Vermont Department of Environmental Conservation's (DEC) turbidity standards. Turbidity is a measurement of the concentration of suspended fine materials in water that results in a cloudy or murky appearance. The North Branch of Ball Mountain Brook has been identified by the DEC as impaired by manganese from reservoir sediment. Wardsboro Brook requires further assessment of possible impairment by sediment and temperature.

The Connecticut River Conservancy (CRC) also tests for E. coli bacteria during summer months on the West River and its tributaries. Bacteria levels are typically elevated during and within 24 hours after rain events due to runoff. In Jamaica, the CRC regularly tests the Pike Falls swimming hole area on the North Branch of Ball Mountain Brook. During the summer of 2024, only one sampling showed elevated bacteria levels not clean for boating or swimming, and this followed a period of wet weather.

All surface waters in Vermont are classified according to a system established by the legislature. The system provides for two classes of water, A and B, with appropriate standards for their maintenance.

Class A waters are all those above 2,500 feet in elevation plus certain waters which are a source of community drinking water or are of very high quality and ecological value. All other waters are Class B, suitable for drinking with filtration and disinfection; irrigation and other agricultural uses; swimming and recreation. There is also a special category known as Outstanding Resource Waters (ORW) that recognizes waters having exceptional natural, recreational, cultural or scenic values.

In Jamaica, Kidder Brook and Cobb Brook are classified as Class A waters, and all others are Class B. The town also has the distinction of possessing an ORW, namely the Pikes Falls segment of the North Branch of Ball Mountain Brook.

The land within Jamaica drains into the West River Watershed. A watershed is a land area which collects precipitation and contributes runoff to a receiving body of water or point along the watercourse. The drainage areas of Jamaica's rivers and brooks extend beyond the Town's borders so inter-municipal coordination of land uses is essential to ensure effective management and protection of the water resource.

The Department of Environmental Conservation uses a Tactical Basin planning process to protect, restore, and enhance water resources. A river basin encompasses an area of land drained by a river and tributaries as is similar to the concept of a watershed. Jamaica is located within the West, Williams, Saxtons River Basin, which drains into the Connecticut River. The State's Basin 11 Plan was last updated in 2021 and it inventories problems that impact local water quality and plans for addressing them (https://dec.vermont.gov/water-investment/watershed-planning/basins-and-planners/basin11). Relevant strategies for Jamaica include stormwater management planning for Town roads, encouraging stormwater management and erosion control for development, and providing information on best practices for agricultural activities in proximity to waterways. The Plan also recommends conducting a wastewater feasibility for Jamaica village, which is underway, and continuing to monitor stormwater management plans and implementation for the Stratton Mountain Resort because of the impact of runoff from this development on downstream communities like Jamaica.

Ball Mountain Dam

The Ball Mountain Dam is one of about 18 federal dams on tributaries of the Connecticut River in Connecticut, Massachusetts, New Hampshire, and Vermont. Together they form a system of flood control dams operated by the U.S. Army Corps of Engineers (Army Corps) and designed to minimize flood damage on the Connecticut River and its tributaries. The Army Corps maintains fish passage facilities at Ball Mountain and Townshend Dams to allow for upstream and downstream migration of Atlantic salmon.

The Ball Mountain Dam has a height of 265 feet above the river bed. It is capable of holding back almost 55,000 acre-feet of water before overflowing its spillway. This volume of water is equivalent to six inches of water over the entire 172 square miles of drainage area upstream from the dam. The drainage area controlled by the dam represents about 40 percent of the total drainage area of the West River.

The level of flow in the West River as it passes through Jamaica varies tremendously due to the fact that the river passes between two federally controlled flood control dams, the Ball Mountain Dam in Jamaica and the Townshend Dam in neighboring Townshend. The average flow over the years has been about 400 cubic feet per second (cfs). Currently, there are controlled releases from Ball Mountain Dam in which the river flow is about 1,500 cfs.

Sediment accumulation in the pool behind Ball Mountain Dam poses a continuing serious risk to water quality and aquatic and riparian habitat in the West River both upstream and downstream of the dam. Ball Mountain Dam was not designed to impound a permanent pool, but a pool has been maintained behind

the dam since shortly after it was constructed in 1960. Several hundred thousand cubic yards of sediment have accumulated in and near the historic river channel underneath the surface of the pool. In the mid 1990s two successive accidental sediment releases from the dam caused severe damage to aquatic and riparian habitat along the West River. Major fish kills resulted from both of these releases, and ecological and economic losses were significant.

The Ball Mountain Dam is currently being used for generation of hydroelectric power. Refer to the Energy section for more details.

Ponds

Although Jamaica has streams in abundance, there are only three significant natural ponds. Of these, Cole Pond, comprising 41 acres, is the largest. With approximately 57 houses on 4 1/2 miles of road and several vacant building lots in the Cole Pond area, special measures may eventually be required, such as a community sewage disposal system, to maintain adequate water quality. The Cole Pond Association voluntarily monitors water quality in the pond. The entire shoreline of Cole Pond is privately owned and there is no public access. Based on years of sampling data, Cole Pond is in a mesotrophic state meaning that it contains moderate nutrient concentrations. Generally, mesotrophic water bodies have moderate algae growth and relatively clear water. Often these water bodies support plant growth around much of their shoreline and may have some shallow areas with abundant plant growth.

The two other Jamaica ponds, Adams Pond and Forrester Pond, seven and nine acres in size respectively, are relatively undeveloped and isolated. Both have been documented as containing significant rare plant communities. Forrester Pond is included on Vermont's 2022 List of Priority Surface Waters Part D. Impaired Surface Waters with Completed and Approved TMDLs as impaired; it is noted as being critically acidified by atmospheric deposition, which impacts aquatic life support. DEC and the US Environmental Protection Agency completed and approved a total maximum daily load (TMDL) for the pond as of September 30, 2003. A TMDL is a calculation of the maximum amount of a pollutant that a surface water can receive and still meet water quality standards, and an allocation of that amount to the pollutant's sources. DEC performs ongoing monitoring to track this impairment.

Wetlands

Wetlands are areas that are frequently inundated by surface or groundwater to support vegetation or aquatic life that depend on saturated or seasonally saturated soil conditions for growth and reproduction. Wetlands take such diverse forms as marshes, swamps, sloughs, potholes, fens, river and lake overflows, mud flats, bogs, and ponds. It is well recognized that wetlands provide important habitat for certain species of wildlife, filter pollutants from runoff that flows through wetlands on its course downstream and stabilize stream flow during periods of heavy precipitation and drought.

The Vermont Wetlands Inventory (VWI) Maps show in the neighborhood of l00 different wetlands in Jamaica comprising 231 acres. To date, a comprehensive field study of wetlands in Jamaica has not been performed. The 2021 Basin 11 Plan notes that Jamaica is a priority town for wetland mapping, along with Winhall and Stratton. DEC's Vermont Wetland Rules categorizes wetlands as Class I, II, or III. Class I wetland areas are those that are exceptional or irreplaceable in contribution so they merit the highest level of protection. Class II wetland areas are those wetland areas which are found to be significant enough to merit some protection (50-foot buffer zones). Class III wetland areas are those wetlands that have not been determined to be sufficiently significant to merit any protection. However, these wetlands may be protected by other federal, state, or local regulations. There are no Class I wetlands located in Jamaica and all wetlands are classified as Class II or Class III.

Class I and II wetlands (referred to as significant wetlands) are protected by the Vermont Wetland Rules and require permit approval by the Vermont Department of Environment Conservation, Watershed

Management Division, Wetlands Program prior to development. In evaluating a wetland's significance, the State considers several criteria including water storage for flood water and storm runoff, surface and groundwater protection, fish and wildlife habitat, recreational value and economic benefits, and open space and aesthetics.

Floodplains and Floodways

Floodplains are relatively flat areas adjacent to a stream or river that experience occasional or periodic flooding. The Federal Emergency Management Agency (FEMA) maps the Special Flood Hazard Areas (SFHAs), which are the floodplain areas with a one percent chance of flooding in any given year. In Jamaica, these areas include lands along Wardsboro Brook, Ball Mountain Brook, the Winhall River, and segments of North Branch Ball Mountain Brook, Turkey Mountain Brook, and the West River. Current FEMA maps are available for review in the Town Office. They are also available online on FEMA's Flood Maps website (https://www.fema.gov/flood-maps) and the Vermont Flood Ready Atlas (https://floodready.vermont.gov).

Within the SFHAs are floodways, which carry the strongest of flood currents. FEMA has mapped these which are defined as "the channel of a watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without increasing the water surface elevation by more than one (1) foot at any point." There are mapped floodways on the West River, Ball Mountain Brook, and Wardsboro Brook.

The Town participates in the National Flood Insurance Program (NFIP) and has adopted and enforces a Flood Hazard Bylaw. By doing so, property owners in Jamaica are able to obtain flood insurance and mortgages at affordable rates and flood disaster assistance. The Flood Hazard Bylaw regulates development within the FEMA defined flood hazard areas by imposing design standards that are intended to minimize property damage during flood events.

Fluvial Erosion Hazard Areas

In addition to the flood hazards described above, there are areas that can be affected by erosion hazards, the scouring of the channel and banks of streams and rivers, often caused by high flows. These areas have been identified by ANR and are mapped as River Corridors on the ANR Natural Resources Atlas and the State's Flood Ready Atlas. For more information about floodplains, floodways, fluvial erosion hazard areas, and River Corridors, please refer to the Flood Resilience element of this Plan.

Groundwater

As in most of rural Vermont, Jamaica relies on groundwater as the principal source of water for domestic use. Different types of wells penetrating to different depths and different geologic characteristics (i.e., bedrock versus sediment) produce a wide range of yields. There are pockets of sand and gravel that can yield abundant supplies of groundwater if they are of sufficient depth and especially if they are in close proximity to a stream or pond. Areas that contain such pockets of sand and gravel are found along Ball Mountain Brook, North Branch Brook, Winhall River and the West River. These areas are the most likely to provide a yield of groundwater sufficient to provide a central community water supply for the villages.

Threats to groundwater and wells include agricultural runoff, road salting, contaminated runoff from paved areas, underground storage tanks, and failing septic systems. Another threat is when water is pumped at rates exceeding the aquifer's capacity, resulting in yields that do not adequately meet the needs of users. As the climate changes and Jamaica experiences more drought conditions and longer periods of hot weather in the summer, there may be a risk of certain wells running dry.

All private and public water supplies are groundwater wells. There is one public water system in Jamaica that serves the Bear Creek Condominiums. A public water system is any source that provides water to 15

permanent connections or serves an average of 25 individuals daily for at least 60 days a year. Public water supplies are regulated by VT DEC, as required by the U.S. EPA. The West River Trailer Park was reclassified from a public water system to Transient Non- Community water system in 1997. A Transient Non-Community water system serves non- residential users who do not change over time. Each public water system has an accompanying source protection area. The current Vermont Water Supply Rule defines a source protection area as the surface and subsurface area through which contaminants are likely to move toward and reach a collection point that supplies a public water system. Within the 200-foot radius of this primary collection area, contamination impacts are likely to be immediate and certain. Beyond that radius, source protection areas are tested and mapped to determine further sources of probable and possible contamination. Both the Bear Creek Condominiums and the Jamaica Village School have delineated source protection areas.

It is well documented that there are deposits of uranium in Jamaica. Over billions of years, uranium decays into radium, and eventually radon. Radon is a naturally occurring radioactive gas that has no color, odor, or taste. Well water that contains radon may increase the level of radon gas in a home. The Vermont Department of Health provides free long-term radon test kits to Vermont residents that measure the amount of radon in the air (see above for link to Vermont Department of Health's website).

Water Resources Policies:

1. Protect waters by restricting development to low densities and low impact uses in the following areas:
    a. Drainage and headwaters characterized by steep slopes and shallow soils.
    b. Watersheds of public water supplies.
    c. Drainage areas of streams classified as Class A by the State of Vermont. Within such areas, special attention shall be given to prevent soil erosion, silting of streams and wetlands, pollution of ground or surface waters, or other forms of water quality degradation.
2. Prohibit the obstruction of streams in order to maintain flows at levels that support current in-stream uses including but not limited to swimming, boating, and fishing.
3. Significant wetlands as defined in the current Vermont Wetland Rules shall be managed so as to protect their natural ecological and physical functions.
4. Wetlands within or adjacent to proposed development sites shall be identified by a Wetland/Environmental Consultant that performs wetlands delineations in Vermont and development plans shall include design and siting requirements necessary to maintain the ecological and physical functions which the wetlands provide.
5. Support surface water classification and management strategies that will maintain or enhance existing water quality.
6. Structural stream channel alterations shall be permitted only for public safety, restoration of stream ecosystems, or when it can be demonstrated that no other nonstructural methods of accomplishing the same objectives are possible.
7. All stream corridors and pond shorelands shall be maintained in their natural condition with an adequate undisturbed vegetative buffer strip along shorelines.
8. Development proposals along shorelines of public waters which are commonly used by the public shall make provision for continued public access along existing public rights-of-ways to such waters.

Priorities for Action:

1. Identify for future planning the wetlands that perform a significant function in providing wildlife habitat, as defined in the Vermont Wetland Rules, and the existing or possible new artificial wetlands (vegetated drainage ways and stormwater detention basins), which are important for non-point pollution control. (Planning Commission, preferably a Conservation Commission)
2. Use road maintenance methods and materials that will maintain or improve water quality, such as those described in the Vermont Better Roads Manual. (Selectboard, Road Commissioner, Highway Department)

Air Resources

The air quality in Jamaica is generally very good because of the town's low population density and the lack of heavy traffic and industrial uses. The closest air monitoring station is maintained by the U.S. Forest Service at Mount Snow and measures fine particulate matter including sulfates, nitrates, organic matter, and soil dust. Threats to air quality include combustion by-products from industry and manufacturing, agriculture, forestry, waste management practices, and vehicle emissions. Topography, prevailing winds, and weather systems can result in air pollution impacting Jamaica from other areas in Vermont or the country. One recent example of this is wildfire smoke originating in Canada impacting local air quality in the Summer of 2023.

Due to the transport of air pollutants, it is difficult to control all air quality at the local level. The Town is largely dependent on State and Federal regulation for air pollution standards. The main locally generated source of air pollution is from carbon-based combustion heat sources and vehicle emissions. Replacing older wood stoves and furnaces with more efficient systems and promoting strategies that encourage alternative modes of transportation, like walking and bicycling, can help reduce local air pollution.

Air Resources Policies

1. Maintain Jamaica's good air quality and require that all activities meet state and federal air quality standards.
2. Discourage developments and activities that have the potential to degrade air quality in Jamaica.

V. ECONOMIC DEVELOPMENT

Economic and Workforce Characteristics

As a rural community, Jamaica has a local economy that is based primarily on local services, small businesses, and tourist related or hospitality businesses. There are also a large number of construction and property maintenance jobs that support year-round residences and a large number of seasonal homes in Jamaica and surrounding towns. Jamaica benefits from having one of the most visited State Parks in Vermont (Jamaica State Park), access to recreational opportunities on the West River, and proximity to major ski resorts and hiking and mountain biking trails. Preserving the natural environment, rural character, and quality of life is an important component of supporting the local economy.
Businesses are located primarily along Route 30, with the greatest concentration in Jamaica Village and Rawsonville. Local businesses include a country market, outdoor recreation retail stores, a general store, eating and lodging establishments, gas stations, and professional services. Residents must travel outside of Jamaica for most of their major goods and services, including groceries and medical, dental and pharmacy needs, banking, as well as other professional services. Home occupations and resource industries (agriculture, forestry, and sand and gravel operations) are also located throughout the town.

As of 2024, there were 45 businesses operating in Jamaica according to the Vermont Department of Labor. Data from the Bureau of Labor Statistics from 2022 provides a general picture of the largest business sectors in Jamaica based on number of employees, as shown in the table below. The construction, retail, and accommodation and food services industries are the largest employers in Jamaica, with construction businesses accounting for 45% of all jobs in 2022, retail 30%, and accommodation and food services 11%.

Jamaica Job Counts by Industry Sector, 2022

Industry Sector	**Job Count**
Construction	90
Retail trade	60
Accommodation and Food Services	23
Administration & Support, Waste Management and Remediation	8
Real Estate	6
Professional, scientific, and management services	5
Finance and Insurance	5
Manufacturing	3
Wholesale Trade	1
Total	**201**

Source: U.S. Census Bureau On the Map

The composition of the industries that Jamaica residents work in is similar to the types of businesses operating in town, with some differences. Of note, there is a significantly higher number of residents employed in educational services and health care and social services, but these sectors are not represented in Jamaica at the same level. Data from the Bureau of Labor Statistics estimated approximately 402 residents aged 16 years or older were in the labor force in 2022 and the table below shows the top five industries Jamaica residents were employed in. These five sectors account for approximately 70% of all jobs held by residents.

Jamaica Residents Employment by Industry Sector, 2022

Industry Sector	Job Count
Accommodation and Food Services	80
Retail trade	65
Educational Services	48
Health Care and Social Assistance	42
Construction	31

Source: U.S. Census Bureau On the Map

The table below provides wage estimates for a selection of occupations that fall within these top five industries. This data is collected by the Vermont Department of Labor for southern Vermont and is current as of April 2023. The mean represents the average while the median is the middle value within a data set. For comparison, the median household income for Jamaica residents was $71,364 (2019-2023 ACS). The occupational wage estimates show that many of the jobs residents are employed in have an average annual wage less than the median household income.

Occupational Wage Estimates for the Southern Balance of Vermont, April 2023

Occupation	Mean Hourly Wage	Mean Annual Wages
Sales and Related Occupations	$23.85	$49,610
Construction and Extraction Occupations	$26.33	$54,770
Educational Instruction and Library Occupations	$29.83	$62,040
Food Preparation and Serving Related Occupations	$20.95	$43,570
Community and Social Service Occupations	$26.19	$54,460
Health Care Support Occupations	$20.57	$42,780

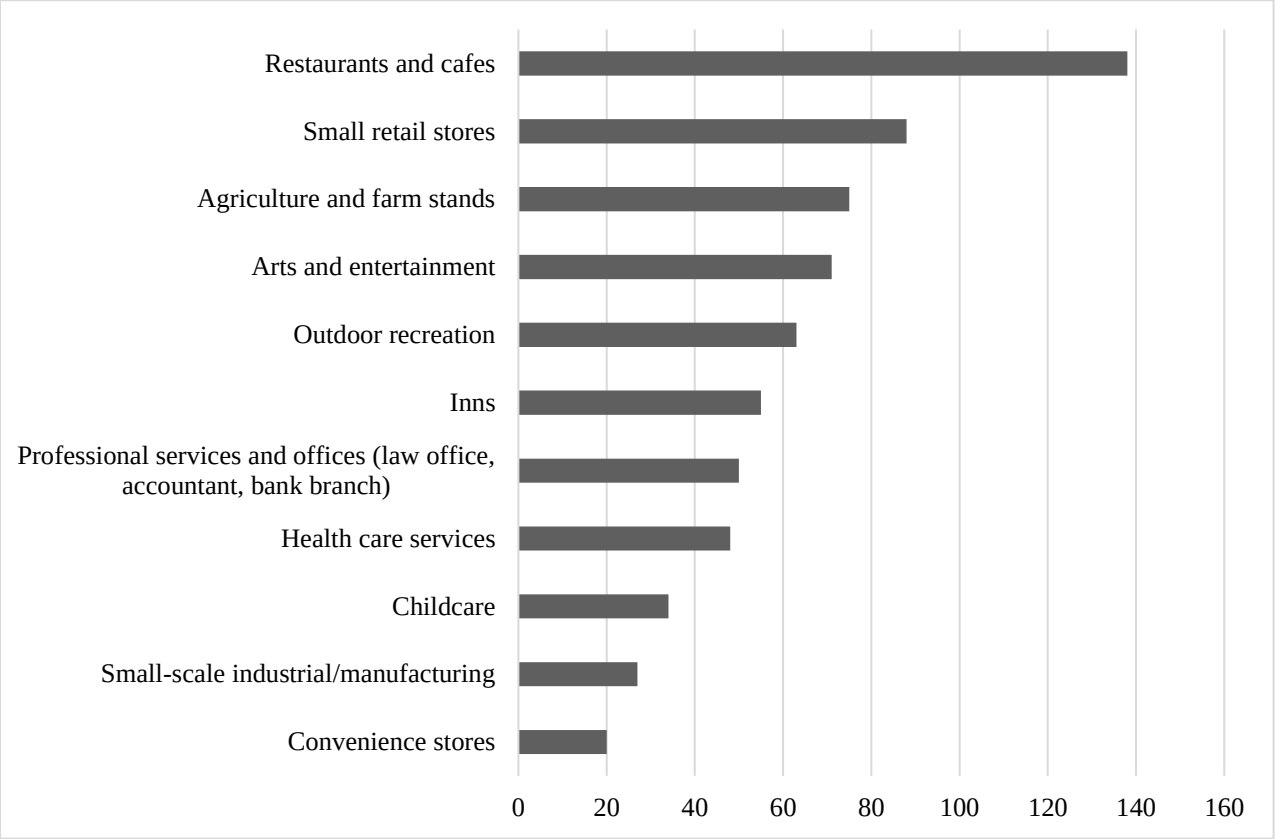
Source: Vermont Department of Labor

The majority of Jamaica residents commute outside of town for work. As of 2022, it was estimated only 44 residents are employed in town. Stratton Mountain was the destination with the highest number of workers commuting from Jamaica at 41, followed by Brattleboro at 16, and Manchester at 15. The 2019-2023 ACS estimated the average commute time for Jamaica residents is 29 minutes.

Economic Challenges and Opportunities

As part of the Town Plan community survey, residents were asked about current commercial activity and services. Approximately 65% of respondents indicated that commercial growth has been too slow in Jamaica and only 2% said commercial growth had been too rapid. Respondents were also asked about the types of businesses they would like to see more of and the chart below summarizes the responses. Generally, the types of businesses residents would like to see more of is consistent with the existing economic characteristics of the community, with restaurants and cafes, small retail stores, agriculture and farm stands, outdoor recreation, and inns all ranking high on the list. There is also a desire for professional services (banking, law office, etc.), health care services, and childcare, all of which are underrepresented currently.

2025 Town Plan Update Community Survey:
What types of businesses and services would you like to see more of in Jamaica?



Rural communities like Jamaica face several challenges in trying to support economic development. Tourism is a primary driver of the local economy and its seasonal nature with peak activity at different times of the year can make it challenging for businesses during slow periods. There is a smaller workforce base and the lack of housing and increased housing costs have made it difficult for businesses to recruit employees. Inadequate infrastructure, in particular public water and wastewater, limit existing and new businesses in the commercial centers of Jamaica village and Rawsonville. At the same time, any effort to spur economic development needs to be carefully balanced against protecting and preserving the natural resources and rural character of Jamaica, assets that support tourism and a second home economy.

While the number of businesses in Rawsonville has increased in recent years, the number in Jamaica Village has declined. The inability of many existing wastewater and drinking water systems to meet the requirements of state regulations forced the closure of two restaurants and a coffee shop, and is limiting the remaining food service business to takeout service only. In addition to contributing to the local economy and providing services, these types of establishments also provided spaces for residents to connect with one another and build community, which is especially important in a more rural community like Jamaica. While Jamaica Village's location on Route 30 and adjacent to a very popular Vermont State Park would seem to make it an ideal location for economic expansion, this infrastructure limitation precludes any significant economic growth. There are current plans to open a new restaurant in Jamaica Village, which will bring back some of this lost economic activity. This situation is discussed in greater detail in the Water and Wastewater section of the plan.

In 2024, Jamaica Village received renewal of its Village Center designation from the State. Created by the

legislature in 2002, Village Center designation recognizes and encourages local efforts to revitalize traditional village centers. Communities that receive the designation become eligible for a number of benefits which include tax credits for building rehabilitation and improvements as well as priority consideration for certain state grants. The Village Center designation supports the Town's efforts to preserve and revitalize the historic village of Jamaica and furthers the Statewide planning goal of planning for development to maintain the historic settlement pattern of this compact village area. Act 181, passed in 2024, reformed the State Designation Program and Jamaica's Village Center will become a designated "Center" under these reforms as of December 31, 2026. There may be an opportunity for the Town to work with the Windham Regional Commission and State to expand the boundaries of the Center designation with the Act 181 changes that would benefit more properties.

The Jamaica Village Business Council was formed in 1998 and in 2004 it was reformed as the Jamaica Community Council. The purpose of this group was to work on initiatives for the betterment of the Town as a place to work, live, and visit. The Community Council has since ceased operating. Reestablishing some type of business council would be helpful to promote economic development in Jamaica Village and Rawsonville. The business council should consider the type of economic development that the community would like to attract to Jamaica. This is another opportunity for the Town to explore to support economic development.

Economic development efforts in Jamaica are supported by the Brattleboro Development Credit Corporation (BDCC), which is the Regional Development Corporation that serves Windham County. In partnership with the Bennington County Regional Commission, BDCC recently completed the 2024 Southern Vermont Comprehensive Development Strategy (CEDS). The CEDS document makes recommendations for strategies to promote economic growth in the region and is required to be in place for projects to be eligible for certain grants from the U.S. Economic Development Administration. The Town should continue to work with BDCC on its economic development goals and identify projects that are consistent with the 2024 CEDS recommendations.

The continued build-out of the Stratton resort will continue to have a subsidiary impact on Jamaica, e.g., increased tourism traffic along the Route 30 corridor and increasing demand for employees in the retail and services industries. Resorts like Stratton are expanding recreational facilities to encourage more visitors in non-winter months, such as mountain biking trails. Jamaica also has numerous recreational resources that attract visitors, including Jamaica State Park, Hamilton Falls, and Pikes Falls. As discussed in the Community Facilities chapter, there are also efforts to develop more local mountain biking trails. The Town can explore how to better promote these recreational resources. For example, a map of Jamaica could be created showing the location of these different resources and posted on the town's website and shared with local inns.

Jamaica shares many similar issues with surrounding towns in the upper West River valley in terms of local economic characteristics. There may be opportunities for Jamaica to partner with surrounding towns to promote and market local businesses and tourist attractions in the region. Such a partnership could be led by a business council, if re-established, or similar group. A model to consider is the Bi-Town Economic Development Committee created by the towns of Dover and Wilmington. There is also an effort amongst businesses on Route 30 to market themselves, known as the Route 30 Collective, which includes several businesses located in Jamaica.

Home occupations continue to serve an important role in Jamaica by allowing for local economic development, encouraging the creation of new businesses, and providing flexible or accessible working conditions for residents. There has also been an increase in remote work opportunities in recent years. This includes positions that are hybrid and still require some amount of in-person work at a local job, and positions that are completely remote. Second homeowners with jobs that allow for remote work also have

the ability to spend more time in Jamaica during the work week. If second homeowners are spending more time in Jamaica, this can help support businesses through increased patronage at local businesses and use of local services. Because Jamaica is a rural community with a limited economic base, remote work may allow for more residents to stay or move to the area if they can still earn income from a job located elsewhere. Broadband internet and cellular service is critical to supporting home occupations and remote work opportunities.

Economic Development Policies:

1. Support revitalization efforts within Jamaica Village and Rawsonville.
2. Support the continued designation of Jamaica Village as a Village Center and explore opportunities for its expansion.
3. Promote existing businesses and encourage new businesses to locate in the town of Jamaica, including Jamaica Village and Rawsonville.
4. Ensure that economic development activities protect natural resources and do not degrade the environment.
5. Ensure the provision of adequate infrastructure (cellular, high-speed internet, road maintenance, fire/safety services, water supply and wastewater) to promote and support economic activities.

Priorities for Action:

1. Establish a Jamaica Business Council. (Selectboard)
2. Explore opportunities to partner with adjacent towns on economic development efforts that benefit the larger region. (Planning Commission, Selectboard)
3. Work with the Windham Regional Commission to develop a Jamaica local recreational resources map. (Planning Commission)
4. Work with BDCC on the town's economic development goals and identify projects that are consistent with the 2024 CEDS recommendations. (Selectboard)

VI. POTABLE WATER SUPPLY AND WASTEWATER

The issue of having inadequate public water and wastewater infrastructure in Jamaica Village is identified as a major area of concern in several places in the Town Plan. The Economic Development chapter discusses how businesses may be unable to expand or be forced to close because they are unable to meet State standards for on-site potable water and wastewater systems. The Housing chapter encourages a greater variety of housing types and at higher densities in Jamaica Village, but this is only possible with public water and/or wastewater infrastructure. Given the importance of this topic, a separate chapter has been included to provide more background information, policies, and recommendations regarding potable water supply and wastewater.

Wastewater treatment in Jamaica is currently handled by individual septic systems. Soil and topographic conditions play a major factor in designing on-site systems. In 2007, the State adopted revised Wastewater System and Potable Water Supply Rules that regulate all on-site wastewater and potable water systems. As a result, a state permit is needed for most repairs, upgrades, and new construction of wastewater and water facilities. Important changes included the requirement that an area for a replacement wastewater system be identified, and new technical standards for isolation of wastewater from potable water supplies. Existing septic systems and drinking water supplies are grandfathered, but new or replacement systems must comply with the new state regulations.

Proper design, construction, and maintenance of septic systems is important for keeping them operating effectively and preventing ground and surface water contamination. Failing or substandard systems can release pathogens, nutrients, and chemicals to groundwater and surface water. Areas of dense development, like Jamaica Village, are vulnerable to system failure and contamination due to the number of small lots with septic systems and drinking water wells in close proximity to one another, many of which were installed prior to the establishment of State-level standards. Another area that can be susceptible to septic system failure is developed shore land areas, such as Cole Pond. In these areas soil and water conditions near the shore may make the septic system less efficient in treating wastewater.

Septic systems are usually designed for a 20-year life span, but can last longer if well maintained. Many of the systems in the Village are older leach fields and drywells without special filtering sand as would be required today in highly permeable soils. When these systems fail, engagement of a septic engineer licensed by the state and a state permit is required for a replacement system. A number of properties in Jamaica Village would not be able to meet the state standards for isolation distances. Additionally, soil conditions in the Village are coarse and gravelly with severe limitation to filtering effluent. Several buildings in Jamaica Village are already underutilized due to wastewater and water supply capacity.

The state does not want to displace homeowners who are making good faith efforts to comply with regulations and will accept replacement systems that are the best possible solution for particular circumstances. However, there are stricter standards for buildings utilized by the public (occupied by 25 or more persons for 60 days or more), which has forced the closing of several businesses. The constraints on commercial building operations imposed by the state standards restrict any significant economic development in Jamaica Village. They also make maintaining the status quo only possible with considerable difficulty and expense to property owners.

A community survey done in 2006 found that 73% of respondents would support a Town effort to identify and address issues regarding wastewater and drinking water issues in the Village. In the survey for the 2025 Town Plan there was strong support for developing a community wastewater system in the Village to support more housing. Responses to other questions in the survey also showed strong support for supporting businesses and the overall vitality of the Village, and having adequate wastewater capacity

is an important component of this goal.

In response, the Town has been exploring village-wide solutions to comply with state wastewater and potable water standards for a number of years. Efforts began in 1999 when the Planning Commission conducted a study of existing wastewater disposal and water supply conditions in the Village to determine whether septic systems were having an effect on the water quality of wells. E-coli counts in Ball Mountain Brook in the Village center were found to be typically higher than counts at a control point upstream. The final reports and recommendations of this study are available from the Town Clerk, and are incorporated into this plan by reference.

The Town considered a community water system through a study completed by the Dufresne Group in 2018. The concept was to pursue a community water system that would allow the abandonment of existing wells and allow for more space for septic system expansion or replacement. Following a public presentation in October 2019, the community voted against pursuing the project. One of the main points made by community members during the study wat that wastewater issues in the Village were a more significant concern than potable water.

The most recent effort was the completion of a Preliminary Engineering Report (PER) in September 2024 for a wastewater system in the Village, supported by State grant funding. This effort was identified as a "Priority for Action" in the 2017 Town Plan. The study area included 69 properties, primarily residential, in and immediately around the village center. The purpose of a PER is to analyze existing conditions, identify the need for a project, consider alternatives, and select a preferred approach for the community.

The draft PER recommends the town pursue a community wastewater system that would serve all 69 properties in the study area and use a site on Route 30 just east of the village for wastewater treatment. The study estimates the total daily flow for the 69 properties is 20,825 gallons and the design for the Route 30 treatment site would have capacity for 34,000 gallons per day, providing additional capacity for growth in the village. An additional treatment site on Depot Street was also identified as a longer-term project and would add an estimated 25,000 gallons per day of capacity. The Town is currently exploring funding opportunities to support design engineering and construction of the system. Due to the high cost estimates, it would not be feasible for the Town to complete the project without significant grant funding from the State and/or Federal government.

Potable Water Supply and Wastewater Policies:

1. Support collaborative potable water supply and wastewater planning efforts that build on past initiatives and investigate alternatives for water supply and/or wastewater treatment in Jamaica Village.
2. Encourage the use of technical assistance by property owners to help address potable water supply and wastewater issues and to allow existing buildings to be used at full capacity.

Priorities for Action:

1. Advance the Preliminary Engineering Report examining the feasibility of a wastewater collection and treatment system in Jamaica Village and pursue all state and federal funding opportunities. (Planning Commission, Selectboard)
2. Engage local citizens throughout the community wastewater planning process through information dissemination and holding public meetings. (Planning Commission, Selectboard)
3. Submit an application to the Brattleboro Development Credit Corporation to include the Jamaica Village community wastewater project as a Southern Vermont Comprehensive Economic Development Strategy project and as a Regional Priority Project. (Planning Commission, Selectboard)

VII. ENERGY

Energy Element – Executive Summary

A summary of the Energy Element of the Jamaica Town Plan is presented in this section. The full Energy Element is attached as an Appendix to this plan. Jamaica's Energy Element addresses the need to reduce carbon-based pollution (CO2) of the atmosphere with a realistically executable energy plan that preserves the nature of our town, prized by both our residents and many vacation homeowners. It is also intended to provide our residents the significant cost savings in energy costs that advances in energy technology will offer. Our goal is to meet the requirements of Act 174, which embodies the energy saving and sourcing goals of Vermont's 2022 Comprehensive Energy Plan in a manner that is consistent with Jamaica's long-standing Natural Resources, Land Use, and Economic Development policies. This Energy Element will be used as a tool to advance the economic and environmental well-being of Jamaica, thereby improving the quality of life for its residents. Furthermore, these energy goals will reduce Jamaica's vulnerability to energy-related economic pressures and, in the long-term, climate change-related natural disasters, and promote long-term community resiliency in a variety of contexts.

The cost of energy in Jamaica, including residential and governmental use (for heating, electricity, transportation, etc.) is estimated to be $3,890,625 per year (this value does not include commercial or industrial thermal energy use). Because a large majority of this energy is imported from outside of Jamaica and the Windham Region, most of the money spent on energy does not directly benefit the local economy. Efforts to reduce the use of energy sources from outside the Town, or shift reliance to locally produced energy, can improve household financial security and strengthen the local economy.

The Energy Element has three major components: improving the efficiency of thermal and electrical energy usage, switching fuels for more efficient heating and transportation, and conversion to renewable energy sources for transportation, heating and electricity generation. The plan implements these components through a program of community outreach to bring energy saving measures to the community's attention and thereby promote the opportunity to reduce energy costs. The plan will meet the Windham Regional Commission's (WRC) allocation of transportation and home heating energy savings targets necessary to be Act 174-compliant in a manner consistent with preserving our town's rural nature and consistent with the pace at which enabling technology and low-cost financing become available. Jamaica fully embraces the pursuit of renewable energy as well as the regional targets for energy conservation in home heating and transportation. These targets are summarized in table E1 below. Additionally, we will explore adding micro hydroelectric generation to our generation mix.

Preserving the Town's natural environment is essential to Jamaica's economy and tax base. Many visitors to our state and virtually all of the Town's residents value the area's natural beauty, including the state's most popular state park. For these reasons, commercial wind energy sources, which by their nature must be located on ridgelines on which the long established land use policies of our town plan prohibit development, are not considered appropriate for Jamaica and are therefore excluded under the provisions of this plan. It is Jamaica's policy to encourage renewable generation with respect to solar and residential wind (as defined in the full energy element), and possibly micro-hydroelectric generation, and to exclude commercial wind development, also defined in the full energy element, as both unnecessary and inconsistent with long-standing Town land use policies. Residential wind development will be encouraged in areas specified by the Wind Potential and Resource map (maps 2 and 3 of Appendix A of the Mapping Appendix of the Energy Element) that are not constrained by Act 250 considerations or provisions of our town plan. It is further considered that the regional targets based on current commercially available technology may prove to be very conservative by 2050. Excluding commercial wind development does not interfere with the town's ability to reach its renewable energy goals.

The plan is realistically attainable. By design, some Act 174 targets for key dates are aspirational. Several enabling technologies are necessary to achieve large-scale penetration of renewable energy generation into the power grid. These include energy storage, power electronics, and smart grid architecture and technology, including grid control. Technologies that deal with the variable nature of renewable energy sources and exploit their geographical distribution are necessary to achieve broad utilization of renewable energy sources. While the State's 15% limitation on net metering has been repealed, net metering is still limited by constraints on the size of solar installations the Public Utility Commission will license, 15 kW for homes and 500 kW for commercial sites. Key to reaching the State's goal of 90% dependency on renewable energy will be the development of energy storage and stored energy management technology that enables economically sound use of renewable energy sources, and complete elimination of net metering constraints will be necessary.

Similarly, conversion to electric, hybrid, or alternate fueled vehicles is dependent on market availability of alternative vehicles suitable for rural use, e.g. trucks, all-wheel drive vehicles, and heavy utility vehicles. Improved energy storage is key to developing markets for these vehicles. These technologies are in various stages of research and commercial development with unknown maturity dates. Additionally, expanding electric vehicle charging infrastructure, both in private homes and in public spaces, and ensuring the availability of alternative fuel stations, such as for hydrogen cell vehicles, will be needed to support the expanded use of alternative vehicles. Community outreach efforts will include maintaining awareness of maturation of these technologies so that opportunities based on their use are introduced to the community as soon as available.

The major benefit to our citizens' is reduced energy expenses. The cost of renewable energy continues to fall and is predicted ultimately to be much less expensive than fossil fuel-based sources. The combination of low-cost energy and the technology to deliver it to all domestic and industrial energy users will in turn spawn economic models with minimal capital expense and much reduced unit costs. The future difference between fossil fuel and renewable sources will be sufficient to finance the upfront capital costs of installations within unit costs and still offer users considerably less expensive energy unit costs than are currently possible. Both these developments, low unit costs and amortization of capital conversion costs within the lower unit costs, will provide our residents' major cost saving opportunities while reducing CO2 emissions. Our plan includes efforts to keep abreast of these much-anticipated technology and economic trends so that we may be able to take advantage of them as early as possible.

While Jamaica can do little to shift the broader state or federal policies, we can influence energy use and production on a local level. In this energy plan, we hope to address Jamaica's local actions for increasing our energy efficiency and promoting renewable energy generation, and overall pathways to become more resilient. We will adopt policies to meet our specific goals as technology and economic developments permit.

The Windham region has been assigned goals for efficiency improvements, use of alternative fuels, and generation of renewable energy for the benchmark years 2025, 2035, and 2050. The WRC has in turn apportioned these goals to each town. Meeting these specific goals will make our town's energy use compliant with Act 174 and Vermont's 2022 Comprehensive Energy Plan. This plan commits Jamaica to meeting the goals assigned to it within the constraints imposed by the pace of introduction of enabling technologies and cost effectiveness. They are summarized in Table E1 below.

Category	**2025**	**2035**	**2050**
Efficiency Targets at Benchmark Years			
Residential Thermal: Estimated number/percent of primary households to be weatherized to meet efficiency goals	94 / 22%	203 / 45%	329 / 68%
Residential Electric: Cumulative annual electrical efficiency savings for town residences (kWh) to meet efficiency goals	87,246	500,670	923,616
Commercial Electric: Cumulative annual electrical efficiency savings for town businesses (kWh)	156,870	787,878	710,460
Fuel Switching Targets			
Residential and Commercial Fuel: Estimated number of new wood pellet stoves and high efficiency wood boilers	90	55	31
Residential Fuel: Estimated number of new heat pumps	100	269	396
Commercial Fuel: Estimated number of new heat pumps	48	146	187
Transportation Fuel: Estimated number of new electric vehicles	18	185	435
Transportation Fuel: Percentage of medium and heavy-duty vehicle fuel use attributable to bio-fuels	7%	6%	1%
Use of Renewable Energy			
Transportation: Percentage of total BTUs consumed (for light-duty vehicles)	9%	33%	84%
Heating: Percentage of total BTUs consumed	48%	79%	94%

Table E1
Summary of Jamaica's Commitment to meeting allocated energy goal

VIII. COMMUNITY FACILITIES AND SERVICES

The quality of and capability of community facilities and services are important components of a town and are often used as a measure of the quality of life within the community. Therefore, the planning for community facilities and services is important in providing for the needs of the community.

This chapter examines the existing conditions, levels of services, and future needs of the municipal facilities and services provided in Jamaica. As a rural community, Jamaica must often rely on services provided by agencies from the outside. Therefore, a variety of services that are provided to Jamaica residents from outside the Town are also considered. Education facilities and services are addressed in the Education Chapter of the Town Plan.

Town Services

Administration

It is through the combined efforts of elected officials, appointed officials, and hired employees that the services of the Town are provided. Town government is overseen by a five-member Selectboard. Other elected officials that are involved in Town government include the three Listers and the Library Trustees. Elected officials such as Moderator, Grand Juror, Town Agent, First and Second Constable, and others serve their respective roles as may be required. There are many officials who are appointed by the Selectboard, including the Town Administrator, Town Clerk, Town Treasurer, Delinquent Tax Collector, Fire Warden, 911 Address Coordinator, Planning Commission, Zoning Board of Adjustment, Health Officer, and various other appointees who actively participate in Town government.

Jamaica holds a traditional Town Meeting to elect local officials, approve a budget for the following year, and conduct other local business. At the Town Meeting, eligible citizens of the town may vote on specific issues that are announced through a warning.

Ambulance Service

The Town has a contract with Rescue, Inc. to provide ambulance services throughout the community. Rescue, Inc. is based in Brattleboro, but has a local station in West Townshend on Route 30. The Town also provides financial support to Londonderry Rescue Squad, which provides ambulance and rescue services to several towns in the region.

Emergency Management

The Town has an appointed Emergency Management Director, whose duties include the coordination of municipal resources in the event an emergency is declared by the Selectboard. The Fire Department is typically the first to respond to most local emergencies, and has a number of written procedures for specific emergency situations. The Town has adopted the National Incident Management System (NIMS), and continues to work on efforts to support the safety of the Town.

In the event of an emergency, the Town Clerk's Office has been designated as the Emergency Management Post Command Center. It is here that the Emergency Management Director coordinates all involved service providers during an emergency. In addition, the Masonic Hall is the Evacuation Center during Town emergencies. It has been certified by the American Red Cross as the Town shelter and can accommodate residents overnight. There is also an emergency shelter at the Jamaica Village School.

The Town of Jamaica has a FEMA-approved Local Hazard Mitigation Plan (LHMP), dated July 21, 2020. This plan, in conjunction with the Town Plan, will aid the Town in resource management and coordination of Town Services. The LHMP is available at the Town Clerk's office and the Town Plan

incorporates the LHMP and subsequent updates by reference.

A statewide Enhanced 911 system (E-911) has been implemented locally. All structures now have unique road addresses in accordance with statute and the Town of Jamaica Ordinance Regarding Street Names and Addressing. These addresses correlate to the site's distance from the beginning of the road so that they may be easily located in the case of an emergency. Each address falls within one of the four mapped Emergency Service Zones in Jamaica and 911 calls are automatically routed to the closest rescue service based on these zones. The primary responders for these zones are from towns of Winhall, Jamaica, Wardsboro, Stratton, and Windham. The Jamaica Address Coordinator, a Town appointed official, is responsible for the update and maintenance of the municipal E-911database. Applications for a new E-911 address are available in the Town Clerk's office.

Jamaica Volunteer Fire and Rescue Association

The Jamaica Volunteer Fire and Rescue (JVF&R) provides fire suppression operations, advanced emergency medical treatment, and various forms of technical rescue operations. The department has approximately 18 members to its roster. Call volume has been increasing in recent years. The 2023 Town Report notes the JVF&R responded to 211 calls in 2023, 128 of which were for emergency medical service.

The department operates out of a six bay garage facility located on Route 30 in the Village. Attached to the garage are a command center, supply room, and meeting room. This facility has capabilities to be an evacuation center or serve in some other civic function. Built in 1994, the firehouse replaced a much older building in the center of the Village. Jamaica has 3 engines and one rescue truck. JVF&R is funded through tax appropriation, donations, and fundraising efforts. The Town has also received funding from state and federal sources to purchase equipment and pay for training to improve the protection and ensure the safety of the community.

There are five cisterns throughout the Town. The two municipally owned cisterns are located in the Village center along with a hydrant, guaranteeing a consistent source of water to assist in the event of a major structure fire in the Village. There are three privately owned cisterns located on Sugar Lot Lane, Dalewood Road, and Trager Road, which provide fire protection. New developments may be required to install cisterns for fire protection if the JVF&R cannot provide adequate fire protection.

JVF&R is a member of Tri-Mountain Mutual Aid Association, which includes the towns of Londonderry, Peru, Weston, Winhall, Stratton, and Windham. Tri-Mountain Mutual Aid is also a member of the Southwest New Hampshire Fire Mutual Aid. Mutual aid systems are associations of fire companies that allow local fire companies to receive fire-fighting assistance or back-up service from other member fire companies.

Police Protection

The Town contracts annually with the Windham County Sheriff's Department for motor vehicle enforcement. The Vermont State Police handle criminal complaints and cases. Jamaica also elects a First Constable and a Second Constable. Constables are responsible for animal control and keeping the peace.

Solid Waste Management

The Jamaica Transfer Station, located on Castle Hill Road, processes waste materials for the residents of the town. It is open five days a week at specified times. Residents are required to show the Attendant an identification card each time they enter the facility. These cards are available at the Town Office and are renewed yearly on October 1st. The Transfer Station accepts trash in "Pay as you Throw" bags.

Recyclables of paper, cardboard, glass, plastics, and organic garbage are accepted at no charge. Other

items such as electronics, refrigeration, demolition/construction materials, and metals are also collected. Some of these materials are chargeable items. Brush, leaves, and clean lumber are debris accepted at no charge. The Swap Shop provides residents the opportunity to bring in reusable items or take items free of charge. It is open at the same hours as the Transfer Station.

Jamaica is a member of the Windham Solid Waste Management District (WSWMD). The purpose of the District is to provide effective and efficient waste management for the 18 member towns. It provides educational workshops for community members and employees of town waste facilities. The WSWMD staff also provides educational classes for school students focusing on recycling in the classrooms. The District also accepts hazardous waste disposal.

Town Services Policies:

1. The Town's rate of growth should not exceed the Town's ability to provide the community facilities and services needed.
2. If the capacity of community facilities or services cannot be expanded without incurring significant capital expenditures, then the expansion of such facilities or services shall be limited to that which the Town can finance or a fair share of the burden for required services or facilities shall be borne by the beneficiary of such services.
3. Support the efforts of the JVF&R to provide effective fire and emergency services.
4. Require that all new development provides adequate water availability and additional equipment or infrastructure needed for effective fire protection.
5. Support surrounding towns by providing Mutual Aid assistance when needed.
6. Continue to contract the services of the Windham County Sheriff's Department, or other appropriate law enforcement organization, for police protection in the Town.
7. Maintain a certified solid waste transfer and recycling facility and support efforts to provide additional recycling programs.
8. Participate in the Windham Solid Waste Management District (WSWMD) as long as it remains advantageous to do so.

Priorities for Action:

1. Evaluate and strengthen local government services where needed with technical assistance from appropriate state and regional agencies. (Selectboard)
2. Continue providing an annual Town appropriation to the JVF&R to meet community needs. (Selectboard)
3. Establish a procedure for JVF&R to review subdivision proposals so that they can work with developers to minimize the risks of fires and maximize their ability to combat fires. (Planning Commission, Selectboard, JVF&R)
4. Participate in local and regional emergency planning efforts. (Planning Commission, Selectboard, JVF&R, Emergency Management Director)
5. Stock the emergency shelter at Jamaica Village School with emergency supplies. (Selectboard, JVF&R, Emergency Management Director)

Town Facilities

Cemeteries

There are six cemeteries in Jamaica that receive appropriations from the Town: Rawsonville, East Jamaica, South Hill, South Windham, West Jamaica, and Pikes Falls. A five-person Cemetery Commission is responsible for the administrative duties and maintenance of all six cemeteries. The Jamaica Selectboard currently serves the role as the Cemetery Commission. The cemeteries are shown on the Transportation and Community Resources map.

Jamaica Memorial Library

The Jamaica Memorial Library occupies the former District #2 School. This library was established under state law in 1923, but it wasn't until 1969 that the book collection was moved into the present building on Depot Street just off Main Street (VT Route 30). The library's mission is to be an active community partner providing programs and services that bring people together, foster creativity, and encourage lifelong learning. There are currently over 5,000 books for adults and over 3,000 children's' books, and a large collection of audio books, DVDs, and periodical subscriptions. The library has a large adult mystery section as well as large print books.

Library services continue to be funded through local tax monies, fundraisers, and grants. Maintenance and operation of the library is overseen by the Library Trustees, which are elected positions. Library staff include a Librarian and a Library Assistant. Due to cutbacks in services provided by the State of Vermont, it is desirable that the Town consider increasing its support for the library in order to maintain and support essential programming, collections, personnel and services.

The library has been expanding its public outreach and program offerings in recent years. Currently, the library is open on Tuesdays and Thursdays from 11 a.m. to 7 p.m., and on Saturdays from 10 a.m. to 1 p.m. The library offers many programs and services including Saturday Morning Storytime, After School STEAM Program, Children's Summer Reading Program, "Open Book" Adult Book Group, and Community Movie Night, , Vermont State Parks Pass & Vermont Historic Sites Pass, passes to the Bird Museum, American Precision Museum, and summer Bandwagon Music Series., the ongoing Book Sale, and free audiobooks and ebooks through One Click Digital.

Internet access has allowed the library to join the Vermont Online Library, which provides community residents access to online electronic information databases. The library participates in the Inter-Library Loan program, which allows for book exchanges with other Vermont libraries. The library has a website (www.jamaicavtlibrary.org) and a Facebook page. The library has automated its collection with barcoding and scanning capabilities, providing patrons with online catalog access.

The building has two main rooms: an adult reading room that includes a Young Adult section, and a Children's room. There are currently two public computers as well as Wi-Fi access. Other resources available for use are the Universal Class & Other Online Resources, and a photocopier/fax machine. The full basement is under renovation and will be converted to a community meeting and activity room, as well as a permanent book sale room, when funding becomes available.. Other space in the building could be put to use for library services and collections, but they are uninsulated and unfinished. Finding funding for these additional improvements would greatly increase the comfort and availability of the library collections and services and lead to increased use and enjoyment by Town residents.

Rawsonville Schoolhouse

The Town also owns the historic Rawsonville Schoolhouse. The Schoolhouse is a one-room building that has the potential to be connected to a wastewater system and has the ability to connect to a potable water supply. The Schoolhouse is located in Rawsonville, on the south side of Route 30 approximately across from the Route 100 intersection.

Town Hall

This historic building was built in 1853 as the Universalist Church of Jamaica. In the late 1870s, with two churches in Town, attendance dropped and the building was sold to the Jamaica Dramatic Club in 1880. After some renovations; stage and dressing rooms, vestibule and ticket window, the "Jamaica Opera House" opened in 1888. The Opera House became the social gathering place for the area, hosting many events. As the population and economy in Jamaica declined so too did the use of the Opera House. In 1921, the Dramatic Club closed its doors (called its curtains) and donated the building to the Town to use

as the Town Hall.

Town Hall is currently used for Town Meetings and both public and private community gatherings. The Jamaica Community Arts Council hosts an annual craft show and a concert series at the Town Hall. There may be opportunities for the Town to provide more formal community and recreational programming at the Town Hall building in the future.

Town Offices
The Town Office houses Town records, land deeds, Town Administrator, Town Treasurer, and Town Clerk's office, and Selectboard activities. The Town Listers and Planning Commission also use the building. The second floor meeting room is used primarily for office work. The most recent additions include the vault and first floor meeting rooms used mostly by the Selectboard and Planning Commission.

Town Garage
The Town Garage is located on Castle Hill Road between the Jamaica Volunteer Fire & Rescue building and the Transfer Station. The Town Garage houses the trucks, equipment, and materials for the maintenance of the Town's road infrastructure.

West River National Bank Building
The West River Bank was chartered as a State institution in 1853. The first bills were issued on July 20, 1854 and continued until 1865 when it reorganized as the West River National Bank with charter number 1564. The brick building is located at the south end of Main Street in Jamaica Village and is listed on the state historical register. The building served continuously as a bank until February 2006, when it was closed.

In 2006, after the bank was closed, the building was put up for sale. At a special Town Meeting the residents of Jamaica voted to purchase the building. The Jamaica Historical Foundation currently uses this building for meetings and exhibits. However, the Town is still working on a plan for future use of this building. The property provides public parking spaces within walking distance of the center of the Village.

Town Facilities Policies:
1. Construct or expand community facilities in Jamaica Village first in order to maintain the Village as the Town's center.
2. Encourage community-based partnerships working for the revitalization and expanded public use of Town-owned historic buildings.
3. Maintain and encourage activities that support or enhance the provision of library and information services.
4. Ensure that Town property, including all town-owned municipal buildings (Town Hall, Town Office, Library, bank building, Rawsonville School, Town garage, and Fire Station), is adequately maintained and serviced in order to provide a safe and efficient work environment for Town employees and to maintain the safety and aesthetic quality of Town property.

Priorities for Action:
1. Continue appropriation to the Jamaica Memorial Library to meet community needs. (Selectboard)
2. Evaluate the existing uses and physical condition of town-owned buildings and assess future facility needs. (Selectboard)

Recreational Resources
Jamaica has a wealth of recreational resources, especially in regards to public forests and natural areas. There are facilities owned and operated by the State of Vermont, the Town, and the Army Corps of

Engineers. An extensive network of trails and back roads provide impromptu opportunities for hiking, biking, cross-country skiing, snowshoeing, and horseback riding through the Town and the many miles of streams and rivers provide opportunities for fishing and swimming. The sidewalk network in the Village also provides opportunities for residents to walk for recreational purposes. Private recreation facilities, including golf courses, campgrounds, and major ski resorts, are located in surrounding towns and are easily accessible from Jamaica. Mount Snow in Dover, Stratton Mountain in Stratton, Magic Mountain in Londonderry, and Bromley Mountain in Peru are all within close driving distance from Jamaica.

Access to recreational resources helps attract visitors to the area supporting local businesses, adds to the quality of life for residents, and improves public health outcomes. In the community survey completed for the Town Plan update, access to recreational amenities was one of the things about Jamaica that residents appreciated the most. The Town should continue to promote and improve local recreational resources, with a particular focus on meeting the recreational needs of young families and the elderly.

Ballantine Ball Field

Through a cooperative agreement, the U.S. Army Corps of Engineers and the Town maintain a ball field in East Jamaica at the intersection of Routes 30 and 100 that supports a wide range of recreational use and is home to the Jamaica Jets baseball team.

Jamaica State Park

Jamaica State Park opened to the public in 1969. The park is owned and maintained by the Vermont Department of Forest, Parks, and Recreation, and comprises approximately 808 acres of land. The main park entrance is located at the end of Depot Street, and is only approximately one-half mile from the Village. Jamaica State Park is popular for hiking, picnicking, swimming, fishing, camping, canoeing, kayaking, and hunting. Facilities include 41 tent/RV sites and 18 lean-to sites, picnic shelter, playground, small nature center, and a swimming hole (the Salmon Hole). There is a multi-use path for walking and biking along the West River that provides access to the Hamilton Falls Natural Area, and there is a hiking trail that leads to a scenic overlook of the park and the Village. The State is currently designing a new bridge to access the park across the West River, which is discussed more in the Transportation Chapter

Hamilton Falls Natural Area

This natural area, comprising 211.5 acres surrounding Hamilton Falls, is owned and managed by the Vermont Department of Forests, Parks, and Recreation. It is a popular hiking and swimming destination. The Hamilton Falls Natural Area can be accessed by car from West Windham Road, or by foot using the West River Trail and Switch Road Trail through Jamaica State Park.

The Department of Forests, Parks, and Recreation is working on a Hamilton Falls Natural Area Master Plan to evaluate different levels of future use of the site. This plan was initiated in part due to concerns from nearby residents about long-term issues around safety, overuse, and parking. These issues became more significant in 2020 due to an increase in visitors during the COVID-19 pandemic. The Town is participating in this planning process and providing input to the State.

Ball Mountain Dam and Lake

Owned and operated by the U.S. Army Corps of Engineers, use of the land in this area includes hiking, picnicking, fishing, and hunting. The Ball Mountain Dam and Lake are accessed from Ball Mountain Lane off of Route 30.

Winhall Town Forest

Public recreational use of this land includes hiking, hunting, trapping, and fishing. The Winhall Town Forest land can be accessed from Sugarbush Drive Extension in Winhall. The majority of the property is located in Jamaica and a portion extends into Winhall.

West River
The West River provides an excellent habitat for native fish species and was included in the federally sponsored Atlantic Salmon Restoration Program. There are numerous opportunities for swimming and boating along the West River. The main access points for the river are at Jamaica State Park and Ball Mountain Dam.

The two-mile section of the West River from Ball Mountain Dam to the Salmon Hole at Jamaica State Park is famous as a challenging whitewater run. Downstream from the State Park, the river continues to be navigable with moderate whitewater features for 7 miles to the Townshend Dam. In early fall, conditions permitting, the Army Corps of Engineers provides one weekend when the flow is augmented by releases from Ball Mountain Dam.

West River Trail
The West River Trail is open from Jamaica State Park to South Londonderry and from Townshend Dam to West Townshend. Public Lands Highway funding (funding that is available for projects that are on, adjacent to, or provide access to federal public lands or Army Corps of Engineers property) have been used for improvements along the West River trail. In Jamaica, improvements have included supporting the Cobb Brook Bridge and the Ball Mountain Dam switchbacks in 2003 construction projects.

Pikes Falls
Located on the North Branch of Ball Mountain Brook, Pikes Falls drops over two ledges before entering into a large pool which serves as one of many swimming holes in Jamaica. Several acres of land between Pikes Falls Road and the brook are owned by the town and provide public access.

Jamaica Area Mountain Bike Alliance
In 2019, a group of residents formed the Jamaica Area Mountain Bike Alliance (JAMBA) with the goal of creating a network of local trails that would be accessible to all mountain bikers. Jamaica State Park, Ball Mountain Dam, and the numerous dirt roads and legal trails in Jamaica offer many opportunities for mountain biking. JAMBA has been working on a mountain trail network at the Jamaica Village School and has also discussed creating trails on private property with local property owners.

Recreational Resources Policies:
1. Support public access to and maintenance and improvement of recreational areas.

Priorities for Action:
1. Study the need for alternative recreational facilities and programming for children, young adults, and elderly residents and assess the potential for using underutilized town land and buildings to meet these needs. (Selectboard, Planning Commission)
2. Retain Class 4 town roads, legal trails, and other public rights-of-way for recreational use. (Selectboard)
3. Create a Jamaica Trails Map that shows places to walk, hike, and bike in Jamaica. (Planning Commission)

Cultural Resources and Events
Cultural and arts amenities contribute to the local quality of life and sense of community, and help highlight the Town's history. Additionally, arts and cultural events can attract visitors to the Town, helping to support the local economy. The following is a summary of existing cultural events and resources in Jamaica:

Old Home Day: A celebration, dating back to the1800's, where new and old residents come home to Jamaica to celebrate the Town's history. Old Home Day is typically held on the last weekend in July.

Activities include kids' games, quilt exhibits, book giveaways, and musical performances.

Jamaica Masonic Hall: Bingo is held weekly on Friday nights.

Jamaica Community Arts Council: a local volunteer group organizes the Craft Show and an ongoing concert series in the Town Hall. The Jamaica Community Arts Council has a Facebook page that promotes upcoming events.

Pikes Fall Chamber Music Festival (PFCMF): The PFCMF has been performing summer concert series in the area since 2012. Concerts are held at Jamaica Town Hall and other locations in Town, as well as surrounding communities.

Cultural Resources and Events Policies:

1. Support and encourage further development of cultural and arts events, programs, organizations, and businesses.

Priorities for Action:

1. Work with the Jamaica Community Arts Council on ways to support and expand arts, cultural, recreational, and community programming at Town Hall. (Selectboard)

Senior Services

As a small town, Jamaica depends on regional services to offer opportunities for its seniors. To support such service, the Town makes annual contributions to several organizations. Senior Solutions (formerly known as The Council on Aging) provides support services to seniors aged 60 years and older living independently in Windham County. This organization can assist seniors in obtaining information on caregiver support, nutrition, legal services, transportation, housing, visiting nursing and hospice. Senior Solutions provides outreach services at the Jamaica Library on the second Tuesday of each month. Below are some of the services that Jamaica residents either are using or can take advantage of:

Nutrition and Health Services

For a small donation, seniors can take advantage of community meals that offer nutritious meals and are often accompanied by interesting programs such as guest speakers or educational programs and information about other senior activities. Residents can take advantage of meals in Jamaica, as well as other towns including Londonderry, Winhall, and Weston. These community meals are organized by Neighborhood Connections.

Neighborhood Connections and Senior Solutions also coordinates home delivery of meals (known as Meals on Wheels) by using volunteer networks that bring the meal to the individuals. Other nutrition services provided by Senior Solutions include food benefit and supplemental food programs for age and income-eligible Vermonters. The Community Food Pantry serves seniors in need in Jamaica and Wardsboro, and can deliver food and cater to special dietary needs.
Neighborhood Connections in Londonderry partners with area organizations to offer regular health and wellness classes for seniors. These include Tai Chi classes, which is an effective exercise for fall prevention, a Bone Builders class for osteoporosis prevention, and a Walk with Ease class.

Transportation

Seniors can take advantage of transportation services that are provided by Southeastern Vermont Transit, Inc. (SEVT). Residents with Medicaid, over the age of 60, or that have an ADA-defined disability can schedule point-to-point transportation for medical appointments by calling CRT's Dial-A-Ride service two days in advance. Grace Cottage Hospital also coordinates rides to and from medical appointments using volunteer drivers vetted by RSVP.

Caregiver Support

Adult Day Services (ADS) provides supervised activities for the frail and/or cognitively impaired, and respite for family and caregivers. The closest Adult Day Service to Jamaica is The Gathering Place in Brattleboro. Senior Solutions can also arrange for senior companions, who provide friendship and support to homebound elderly. In addition, the Grace Cottage Health Care Center provides educational and care programs for seniors. The Visiting Nurse Alliance provides in-home care and assistance to residents. These services support residents who are aging in place and allows them to live at home independently. The Town makes an annual appropriation to the Visiting Nurse Alliance.

Despite the existence of these programs, Jamaica and surrounding rural towns are underserved by social services. As the population ages, there will be an increasing need for expanded and new types of services to support the Town's growing senior population. In addition to services, it will be important for the Town to consider and plan for the needs of elderly residents in terms of housing and recreational facilities as well. Many elderly residents may reside in older homes and could be looking to downsize to smaller homes that are easier to maintain and are more accessible. Ensuring that sidewalks in the Village are well-maintained and accessible is just one example of how the Town can support safe recreational opportunities for seniors.

Senior Services Policies:

1. Support the well-being and quality of life for seniors through continued appropriations to organizations that provide support services.
2. Continue to improve accessibility to public buildings and sidewalks.

Telecommunications

Lack of broadband internet meeting Vermont's standard for broadband data rates (symmetric 100/100 Mbs download/upload speeds) and uniform cellular phone services have been a long standing problem in rural Vermont, including Jamaica (Mbs is million bits per second; Gbs is billion bits per second). Limited internet access at minimal broadband speeds (25/3 Mbs) is now available in many parts of Jamaica, although with wide variations in options, reliability, and speed. Availability of broadband internet access at data rates exceeding Vermont's standard is available for some locations utilizing Starlink, the low earth orbit satellite based radio broadcast system. To utilize Starlink, users must have an unobstructed upward looking 50 degree cone of visibility. Any trees within this cone will interfere with the Starlink broadcast making it unusable. In heavily forested Jamaica, this requirement significantly limits its use. Return on infrastructure investment required to bring broadband internet to rural Vermont has not proved to be sufficient to justify commercial investment, and required state funds have not been available.

Due to Jamaica's rural mountain terrain and the prohibitive cost associated with providing cell tower coverage of all areas of Jamaica, some people still do not have cell phone service. The availability of cellular services in Jamaica varies across providers. Based on drive testing completed by VTrans in 2022 on State highways and major town roads, the only consistent coverage area across all providers is along Route 30. West Jamaica Road, Pikes Falls Road, and Route 100 all show more inconsistent or no coverage. Of the major providers, AT&T and US Cellular appear to have the best coverage in Jamaica, with Verizon and T-Mobile having poorer call completion rates. The VTrans analysis does not include testing of cellular coverage on secondary roads off of these main roadways.

Adequate telecommunication services have become increasingly important for taking advantage of remote work opportunities and for residents to access services and information that is becoming more available online. These services are also essential for supporting the local economy and attracting new residents to the community. In the community survey completed for the Town Plan update, residents noted that broadband internet and cellular service was an area most in need of improvement in Jamaica.

To address the problem of inadequate internet access in rural Vermont, Act 79 established Communication Union Districts (CUDs). CUDs are municipal districts to be formed by two or more towns with the mission to make fiber optic based broadband telecommunications services available to all locations within their district. Fiber optic technology is broadly considered the communications technology of the future because of its capability to meet the projected future demand for ever higher data speeds and its low life cycle cost. While initial installation costs are high, lifecycle support and maintenance costs are relatively low. Vermont has charged CUDs to build systems with an expected thirty year lifecycle.

CUDs are governed by a board of representatives from each member town appointed by their Selectboards. CUDs have the power to raise private capital and accept public grants and charitable donations, but not tax member towns. CUDs receive technical and financial oversight by the State's Vermont Community Broadband (VCBB) board. Jamaica is a member of the Deerfield Valley CUD (DVfiber). DVfiber has grown from its initial five towns to twenty-four members representing the entire Windham Region.

DVfiber's fiber optic network is designed in three primary distribution loops covering southern, middle, and northern towns of the Windham Region. Jamaica is in the middle loop. Construction of the southern loop began in late 2023, funded by state and federal grants from the Inflation Reduction Act (IRA). Service ranging from 100/100 MBs to 1GBs/1GBs is enjoyed by an expanding user base in this southern loop. Additionally, telephone service is available from DVfiber utilizing the voice over internet protocol (VOIP). Also, modern cell phones may be linked to WIFI routers to use the internet for calling, solving the problem of poor cell tower coverage.

DVfiber is pursuing a grant under the Broadband Equity Availability and Distribution (BEAD) program of the Innovation Infrastructure and Jobs Act (IIJA) to build the middle and northern loops to serve the underserved and unserved locations in these towns. Construction is anticipated to begin when BEAD grant funds are released. To fulfill DVfiber's mission to bring high speed fiber optic broadband access to everyone in the Windham Region, when BEAD funds are expended, construction will continue under private capital funding and any other grant opportunities that may be available.

While Vermont has set 100/100 Mbs as the standard for broadband internet service, the Federal Communications Commission (FCC) has established a lower threshold for determining unserved or underserved locations (25/3 Mbs). The national FCC survey was based on a single speed per town, i.e. if one location in a town had service at 25/3 Mbs the entire town was considered adequately served. A later statewide survey in 2022 of individual locations established that approximately 31% of households in Jamaica still do not have access to the internet with download speeds of 25/3 Mbps. This is significant because grant funds from the IIJA are limited to locations that do not meet the FCC threshold speeds. IIJA grant funding is anticipated to fund timely expansion of high speed broadband to unserved and underserved locations in Jamaica. Mapping from the Department of Public Service shows that unserved and underserved households are concentrated in the areas of Turkey Mountain Road, West Windham Road, South Hill Road, and West Jamaica Road. Areas with the highest internet speeds are found along and immediately off of Route 30, Route 100, River Road, Cole Pond Road, Mountain Access Road, Dalewood Road, and segments of Pikes Falls Road.

Under the FCC Rural Digital Opportunity Fund (RDOF) certain areas (census blocks) were auctioned off by reverse auction to the major internet providers to provide high speed internet. Under terms of the BEAD grant, awardees may not use BEAD funds to serve those areas for which RDOF awards have been made. One such area exists in Jamaica in a cluster of homes off Pikes Falls Road. In the Windham Region, Fidium, an all fiber optic upgrade to DSL, is being implemented in select locations offering speeds up to 2 Gbs. It is not clear where in Jamaica, beyond the RDOF area, Fidium will be available.

Similarly, Xfinity is introducing DOCSIS 4.0, a hybrid fiber coaxial cable upgrade to the existing Xfinity distribution network. Last mile connections remain coaxial cable. Data speeds up to 1 Gbs will be supported by this upgrade, but their availability is limited by the distance from the nodes converting fiber optic signals to coaxial cable connections. Availability dates and locations are unknown at this time.

Vermont's CUDs, including DVfiber, were originally expected to fund building a community-governed internet service with privately raised capital. In the interim, federal grant funding has significantly accelerated the initial phase of DVfiber's network and anticipated BEAD grant funding will further accelerate buildout, bringing high speed internet to Jamaica in the early part of this plan's lifespan. Pending the release of the BEAD grant funding, DVfiber should be available to Jamaica's unserved and underserved households within the following two-year time frametime frame. In summary, Jamaica residents should have at least one high speed internet service provider available to them in the near future, and, in some locations, a choice of providers.

Telecommunication Policies:

1. Promote the development of modern telecommunication facilities to meet the long-range needs of the community.
2. Encourage the expansion of telecommunications facilities at existing sites.
3. Require that the location of and design of communication facilities and services provide quality transmission and minimize the negative impacts on natural resources and special sites and areas (including access roads to these facilities).
4. Require that provisions are made for the removal of telecommunications facilities when they are no longer in use.
5. Encourage underground utilities in new subdivision proposals of more than 10 lots.

Priorities for Action:

1. Coordinate with providers of telecommunication services in the siting, construction, alteration, development, decommissioning, and dismantling of new lines, towers, poles, and equipment. (Selectboard, Planning Commission)
2. Continue to appoint a representative to the Deerfield Valley Communications Union District to represent the community's interest. (Selectboard)
3. Explore public and private partnerships to pursue the expansion of telecommunications infrastructure, such as the use of Town-owned land for facilities. (Selectboard, Planning Commission)

Child Care

The accessibility, affordability, and quality of child care affects parents' ability to enter the workforce, be productive while at work, and remain employed. For this reason, the provision of childcare is important for supporting a community's local economy and attracting and retaining young families. Child care also provides children with early educational and socialization opportunities before entering Kindergarten. The 2020 US Census reported that there were 33 children under the age of five in Jamaica, indicating a potential need for child care.

According to the Bright Futures Information System, a service of the Vermont Department for Children and Families, the only licensed child care provider currently is the Pre-K Program at the Jamaica Village School, which only serves children aged 4 or 5. There are other registered child care homes in Londonderry and Townshend, and other licensed child care providers in Wardsboro, Townshend, Londonderry (2), and Stratton.

There may be other child care operations in Jamaica that are not registered. The Vermont Agency of Human Services, Department for Children and Families requires any person who provides child care for children from more than two families, other than their own, to be registered or licensed. Family child care

home registration is for a caregiver seeking to operate out of his or her home. A registered care giver may provide care for up to six children, including up to two children under the age of two, at any one time. In addition, he or she may care for up to four school-age children for not more than four hours daily per child. A caregiver wishing to care for children in a building other than his or her home requires a state license.

Child Care Policies:

1. Support town and regional efforts to increase the availability and affordability of child care.
2. Encourage registered home-based and licensed child care facilities in the community.

IX. EDUCATION

Early Education

Early Educational Services (EES) is based in Brattleboro and is administered by the Windham Southeast School District. EES provides several programs for families with children from birth to five years of age. The programs include Head Start classrooms in Brattleboro and Westminster, Family Support Specialist services including nutrition, dental, medical, and behavioral support, home visiting for support and education of community resources, the Welcome Baby program that gives out bags and collaborates with schools to provide Teddy Bear Teas, playgroups (the closest currently is in Townshend), the Dedicated Dads Program that meets weekly, the Dental Clinic, information and referral services, and Parent Education Classes and Support Groups. Jamaica residents are eligible to participate in all of the EES programs.

Another opportunity for early education is the Pre-Kindergarten program at the Jamaica Village School (JVS). For the 2024-2025 school year, JVS is housing one of the West River Education District's Pre-K classrooms, the other one being at Townshend Elementary. The program runs for the full day with the option of five morning half days for Pre-Kindergartners. In order to be eligible, a child must be 4 years old by September 1st and reside in Jamaica, Townshend, or Newfane.

Primary and Secondary Education

Jamaica Village School and Community Center

The Jamaica Village School (JVS) serves the town's children from pre-kindergarten through fifth grade. For the 2024-2025 school year, the JVS is only operating a Pre-K program and all kindergarten through fifth grade students are attending school at Townshend Elementary or NewBrook Elementary in Newfane. Additional information on the current and future status of the JVS is provided in the West River Education District section below. The school building has six classrooms, a small meeting/work room, library, principal's office, administrative office, multi-purpose room and kitchen. Up until the 2024-2025 school year, there were four mixed-age classrooms: Pre-K/K, 1st/2nd grade, 3rd/4th grade, and a 5th/6th grade. The current wastewater system has a capacity of 102 occupants. Enrollment in the 2023-2024 school year was 21 students (pre-kindergarten through fifth grade), down from 56 students in the 2016-2017 school year.

The Jamaica Village School building is also a community center and designated emergency shelter. It has a non-transient public water system and a back-up generator. It can be, and has been, used for yoga classes, fundraisers, and birthday parties.

Leland and Gray Union High School and Middle School

Leland and Gray Union High School & Middle School in Townshend serves the town's children from sixth grade through twelfth grade. In addition to Jamaica, students from Townshend, Brookline, Newfane, and Windham attend Leland and Gray.

West River Education District

Jamaica is a member of the West River Education District (WRED), along with the towns of Townshend, Newfane, Brookline, and Winhdam. The WRED was formed in 2019 following the passage of Act 46 and is part of the Windham Central Supervisory Union (WCSU). The WRED is governed by an 11-member Board, including 2 representatives from Jamaica. While overseeing all schools in the WRED, Jamaica members ensure the unique interests of the Jamaica Village School and the Town are represented and met.

At the time the WRED was formed, there were four elementary schools in the district: Jamaica Village School, Windham Elementary, Townshend Elementary, and NewBrook Elementary. A policy in place prior to the creation of the WRED allowed parents in Jamaica, Townshend, Brookline, and Newfane to request elementary school choice between JVS, Townshend, and NewBrook. In recent years, the JVS saw declining enrollment numbers as families opted to send their children to Townshend Elementary or NewBrook Elementary. As a result, for the 2024-2025 school year the WRED made a decision not to offer K – 5th classes at JVS and Jamaica families have needed to select between Townshend or NewBrook, or alternative private school options.

The WRED hired Stevens & Associates in 2022 to explore the feasibility of having one consolidated elementary school campus in the district. The study recommended closing JVS and Townshend and sending all students to NewBrook Elementary. This would require updates to the NewBrook campus, including the use of temporary classroom structures. In order to move forward with the plan, voters in each of the three towns would need to approve of the plan. In January 2025, Jamaica voted to reject a proposal to close JVS. Discussions on the future of JVS and elementary school facilities in the WRED are ongoing as of the completion of this plan.

Education Costs

Educational costs in Jamaica have been increasing. The reasons for this are similar to those that affect other school districts all over Vermont. These include increases in under-funded government mandates regarding the type and quality of education, salaries and accompanying benefits, costs of special educational programs, transportation, and operation and maintenance costs. The current Education Funding System under Act 60 establishes education tax rates meeting school operating costs on a per normalized student basis. Normalized student numbers are determined by the number of actual students weighted by certain factors such as age and family income. Decreasing student enrollment numbers has been the primary reason for significant education tax rates. With the formation of the West River Education District, education tax rates are now set on a district-wide basis.

In spite of these factors, the Jamaica School has made a number of improvements. The water quality at the school through its potable water system is now in compliance with State regulations. The wastewater capacity was increased not only to meet State regulations, but also to allow for future growth. Water fountains, bathroom facilities and a backup power system were added. Playground facilities were also upgraded providing better safety for the students.

State Education Reforms

The State legislature passed a significant education reform bill in June 2025 (H.454) that will have implications for educational services in Jamaica. One of the primary goals of the legislation was to reduce the significant increases seen in property taxes over recent years. The legislation would consolidate the State's 119 school districts into a significantly smaller number of larger regional districts. Education funding would transition to a foundation formula beginning in 2029 that would move decision making on educational spending to the State rather than at the school district level. A concern for small, rural communities like Jamaica is these reforms will lead to the closure of smaller elementary schools. As of the completion of this plan, the full impacts of the legislation on Jamaica are not yet known. The Town will continue to work with representatives on the WRED to understand these changes at the State level and advocate for the community's interests.

Adult Education

Adult education opportunities for Jamaica residents are available regionally. The Community College of Vermont has learning centers in Brattleboro, Bennington, Rutland and Springfield that offer associate degrees, career-related certificates, and credit and non-credit training programs. Adult education and literacy programs are offered through the Tutorial Center in Manchester and Bennington. Vermont Adult

Learning offers similar adult education services at centers in Rutland, Springfield, and Brattleboro.

Career and technical education is available at the Windham Regional Career Center in Brattleboro, Stafford Technical Center in Rutland, or Southwest Vermont Career Development Center in Bennington. These centers offer adult technical education and career skills both on-line and in the classroom or shop, in addition to serving high school students. Examples of course offerings include arts and design, business, computer science, construction and trades, health and fitness, hospitality, information technology, math and science, and teacher professional development.

Education Policies:

1. Require and support the provision of early education and K-12 education for Jamaica residents.
2. Encourage and support post-secondary, vocational, and adult education programs.
3. Provide energy efficient and appropriate educational facilities to meet current and projected educational, health, and safety needs.
4. Promote the utilization of community based facilities and organizations that will support the educational, recreational, and cultural needs of residents.
5. Disseminate information on adult learning, including the resources available at the Jamaica Memorial Library.

Priorities for Action:

1. Continue, through membership in the West River Education District or by other appropriate means, to provide comprehensive educational and vocational training opportunities for all children and young adults. (School Board)
2. Encourage the use of all facilities, including the State Park and Library with its VELI-STEM (Vermont Early Literacy Initiative-Science, Technology, Engineering, and Math) program. (School Board, Library)
3. Disseminate information on available early education and adult education resources. (Volunteers, local charitable organizations)
4. Work with Town representatives on the West River Education District Board to represent the community's interests as they relate to the future of the Jamaica Village School. (Selectboard)

X. HOUSING

The Housing Chapter is divided into three sections. The first section provides an overview of existing housing conditions in Jamaica, including data on the physical characteristics of housing units and the characteristics of households. The data from this section along with public input provided in the community survey and Town Plan public meeting were used to develop the second section, which identifies the general housing needs for the community. The final section discusses possible strategies for Jamaica to address its housing needs.

Existing Housing Conditions

Housing Units by Type

While there is a variety of housing types available in Jamaica, the predominant housing unit type is the single-family detached dwelling, similar to most rural towns in the region. Approximately 85% of Jamaica's housing units are single-family units. Only 7% of all dwelling units are in buildings with three or more units (multi-family dwellings). Mobile homes account for 6% of the housing units. With the exception of densely settled Jamaica Village and some large subdivisions, residential development has occurred in a dispersed pattern, with a small number of lots being subdivided at a time primarily for single-family dwellings.

Jamaica Housing Units in Structure (2023)

	Total	**Percent**
1-unit, detached	921	85%
1-unit, attached	9	1%
2 units	12	1%
3 or 4 units	50	5%
5 or more units	27	2%
Mobile home	67	6%

Source: 2019 – 2023 American Community Survey 5-Year Estimates

Housing Age

Jamaica's housing stock is relatively newer compared with the region as the whole. Only 163 units, or approximately 14% of housing units, were built before 1949. For the Windham Region, approximately 31% of all units were built before 1949. Home construction in Jamaica peaked in the decades of the 1970s, 1980s, and 1990s. This coincides with a time when nearby ski resorts were expanding their facilities and there was a significant increase in demand for second homes. During this thirty-year period, 684 dwellings were constructed accounting for nearly 61% of all units in existence today. Housing construction has slowed since 2010. As of the 2020 US Census, Jamaica had a total of 1,019 housing units, a net *decrease* of 36 units from 2010. A decrease in housing units can result from dwellings falling into disrepair and becoming uninhabitable, dwellings destroyed or severely damaged by fire or flooding, and the conversion of two-unit and multi-unit buildings into single-family dwellings.

Housing Tenure

Of the 1,019 housing units in Jamaica, 368 were owner-occupied, 98 renter-occupied, and 487 used for seasonal purposes in 2020 according to U.S. Census data. The 487 seasonal dwelling units account for nearly 50% of the total housing stock. While the second-home market helps support the local economy, it can put upward pressure on land, construction, and labor costs, and can make it more difficult to develop housing for year-round residents. Jamaica, similar to other communities with a large number of part-time or seasonal residents, has seen the conversion of seasonal homes to owner-occupied dwellings as property owners have chosen to make Jamaica their full time residence. In recent years, this has become more prevalent as improved telecommunication technology and remote work opportunities has made it easier for seasonal residents to move to Jamaica full-time.

Jamaica Housing Tenure, 2010 – 2020

	2010		2020	
	Total	**Pct**	**Total**	**Pct**
Seasonal	556	53%	487	48%
Owner-Occupied	377	36%	368	36%
Renter Occupied	83	8%	98	10%
Vacant	39	4%	66	6%
Total	1,055		1,019	

Source: U.S. Census

Jamaica has also seen an increase in the number of short-term rentals in recent years. Short-term rental units are not listed as renter-occupied units in the housing tenure data above. Renter-occupied units are those occupied on a full-time basis. During the period of January 2022 – December 2024, the number of short-term rental listings in Jamaica ranged from approximately 110 – 140 units according to Air DNA, a website that compiles data on short-term rentals. While this number has grown in recent years, it appears to have stabilized since 2022.

Short-term rentals present benefits and challenges for Jamaica. On the one hand, the availability of short-term rental units help attract visitors to the area by offering more and different types of accommodations than what is provided by local inns and bed and breakfasts. It can also allow residents to afford homes by providing a supplemental income source either by renting out a room or their entire home. However, there can be issues around occupancy levels of short-term rentals and whether these buildings meet health and safety codes. In addition, the additional noise and vehicles associated with higher occupancy numbers can have an impact on existing residential neighborhoods. Finally, there is the question of whether these housing units could otherwise provide long-term housing for rent or ownership.

Household Characteristics

The table below shows the change in household size in Jamaica from 2010 to 2020. During this period the total number of households decreased by nearly 100 from 460 in 2010 to 368 in 2020. From 2010 to 2020, the percentage of households with 1 person or 2 persons grew from 70% to 74%. The total number of households with 3 persons or more dropped to only 96, representing 26% of households.

Jamaica Household Size, 2010 – 2020

	2010 Total	2010 Pct	2020 Total	2020 Pct
1-person household	145	32%	114	31%
2-person household	174	38%	158	43%
3-person household	67	15%	35	10%
4-person or more household	74	16%	61	17%
Total	460		368	

Source: U.S. Census

As discussed elsewhere in the Town Plan, Jamaica's population is growing older and an outcome of this trend is household sizes are getting smaller. The number of household heads above 65 years in age has increased during the 2010 – 2020 period. According to U.S. Census and American Community Survey data, the percentage of household heads aged 65 or older increased from 28% of all households in 2010 to 38% in 2022.

Housing Affordability

Housing is considered to be "affordable" when a household spends no more than 30% of its gross income on housing costs including rent or mortgage payments, utilities, property taxes and insurance. According to the Vermont Department of Taxes, the median home sale price in Jamaica was $311,827 in 2023 based on 7 home sales, as shown in the table below. Since 2018, the median sales price in Jamaica has increased by approximately 70% compared with an increase of 50% in Windham County. These numbers are based on primary home sales only and do not include seasonal home sales.

Median Sales Price of Primary Homes in Jamaica and Windham County, 2018 - 2023

	2018	**2019**	**2020**	**2021**	**2022**	**2023**
Jamaica	$182,000	$188,056	$395,182	$177,000	$403,676	$311,827
Windham County	$188,500	$190,000	$209,500	$240,000	$260,000	$282,000
# of Sales in Jamaica	5	9	11	2	5	7

Source: Vermont Department of Taxes

Data on rental costs can be less reliable and difficult to obtain compared to home sale prices. According to the 2019-2023 American Community Survey (ACS), the median gross rent in Jamaica was $1,158. Median gross rent has increased by 25% from 2018 when it was estimated to be $926. The 2019-2023 ACS estimated that 7 renter-occupied households were paying $500 - $999 per month on rent and 26 households were paying $1,000 - $1,499 per month.

The 2019-2023 ACS estimated the median household income in Jamaica was $71,364. Using the median income level, a home priced at approximately $260,000 would be considered affordable assuming a household had no other monthly debt payments. This compares to the median home sales price of $311,827 in 2023. This points to an affordability gap between household earnings and housing costs for many residents.

Jamaica Households by Total Annual Household Income (2023)

	Number of Households
Less than $25,000	53
$25,000 to $34,999	46
$35,000 to $49,999	36
$50,000 to $74,999	89
$75,000 to $99,999	73
$100,000 to $149,999	27
$150,000 or more	104

Source: 2019 – 2023 American Community Survey 5-year Estimates

A lack of affordable housing options in Jamaica is evident in the percentage of households that are either cost burdened (paying more than 30% of their income on housing) or severely cost burdened (paying more than 50% of their gross income on housing). The 2019-2023 ACS estimated 19% of households were paying between 30 – 49% of gross income on housing costs and 7% were paying more than 50%.

Housing Needs

There are several challenges in Jamaica's housing market based on existing housing characteristics and the demographic and economic conditions highlighted elsewhere in this plan. Growth in household incomes is not keeping pace with the significant increase in housing costs over the last five years, in particular for ownership opportunities. As a result, there is increased likelihood that residents are either not able to find housing in Jamaica or they are forced to pay more than a sustainable amount of their income towards housing costs. Current residents looking for different housing opportunities may not be able to move due to these higher costs. Less turnover in housing has the effect of increasing housing costs as well due to there being less supply available.

The demographic data shows that the community is aging. Between 2010 and 2020, the percentage of residents over 65 in age grew from 16% to 23%. Some residents may not want to or be able to age in their existing homes due to accessibility issues, maintenance demands, and other issues. Aging residents may prefer living in smaller, more modern homes and in closer proximity to services, community facilities, and other people. Given the predominantly rural character of Jamaica and the high percentage of detached single-family homes, the current housing market may not meet the needs of all older residents.

Household sizes are also trending down as residents age and a smaller number of families have children or have fewer children. Households with one or two persons may prefer a smaller dwelling unit with only one or two bedrooms. Decreasing household size can create misalignment in the local housing market. For example, a household with just one person may be forced to buy a larger home than they would otherwise choose to and this can take a housing opportunity away from a larger family.

The current housing market is not keeping up with the evolving needs of Jamaica residents. There are many factors that contributing to this, including increased construction and labor costs, inadequate land suitable for development, and a lack of water and wastewater infrastructure to support higher density residential development. According to the community survey for the Town Plan, 35% of year-round residents said that the rate of residential growth has been too slow. In the survey done for the 2017 Town Plan, a question was included on the types of housing to prioritize in Jamaica. The results from this survey are still relevant with the current Town Plan update and are provided below.

Jamaica Community Survey for 2017 Town Plan Update

Question: Prioritize the housing needs in Jamaica over the next five years.					
Answer:	Top	Moderate	Low	Not	No Change
Housing for fixed income seniors	23%	31%	9%	13%	13%
Housing for low-income people	19%	24%	15%	19%	13%
Housing for moderate income people	17%	35%	11%	15%	12%
Housing for the local workforce	23%	31%	8%	13%	12%
Single family housing	25%	33%	10%	8%	11%
Multi-family housing	5%	16%	19%	33%	13%
Second homes	11%	19%	15%	32%	11%
Increased rental opportunities	11%	25%	15%	23%	14%
Provide housing assistance	14%	23%	11%	25%	15%

In 2024, Jamaica participated in a project led by the Windham Regional Commission and the University of Massachusetts – Amherst to identify housing needs in Jamaica, Winhall, Londonderry, and Weston. According to the analysis done by UMass, it was estimated Jamaica will need 135 new year-round dwellings by 2040 to meet current and future needs. This estimate is based on population growth and changes in household composition. To meet this goal, approximately 9 new dwelling units will need to be constructed per year between 2025 and 2040.

Local Housing Strategies

As part of the Town Plan community survey, residents were asked about what types of strategies they would support the Town taking to encourage more housing. The table below shows the number of respondents in support of each idea. The highest support was for the Town helping residents learn more about the availability of housing improvement programs, encouraging a greater variety of housing options, and developing a community wastewater system in Jamaica village.

Jamaica Community Survey for 2025 Town Plan Update

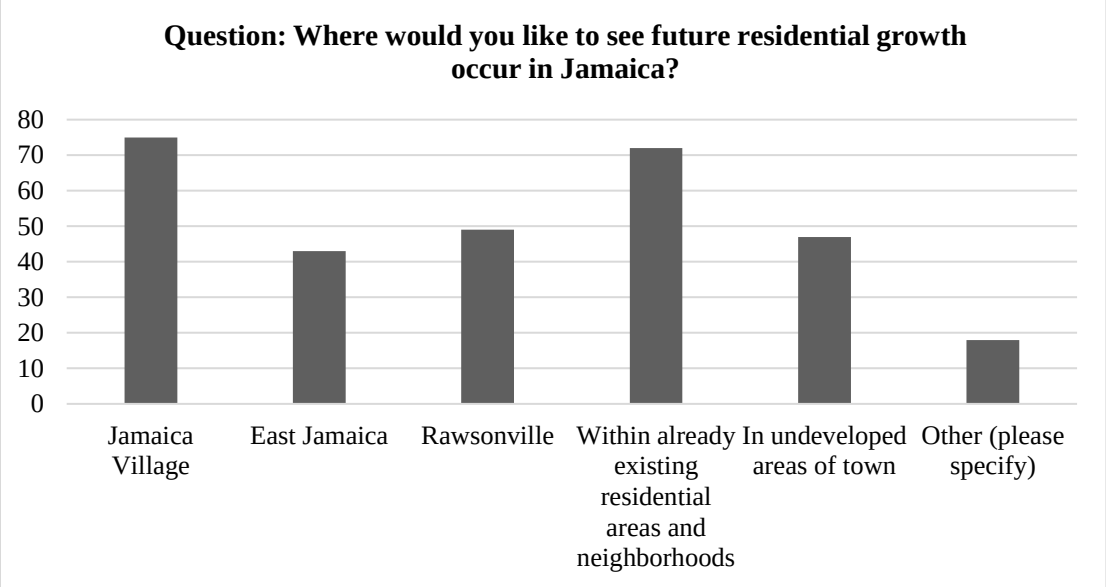
Question: What steps should the town take relative to encouraging more housing?	Total Responses
Help residents learn more about the availability of housing rehabilitation programs and educational resources provided by local housing trusts	79
Encourage a greater variety of housing options, including two-family dwellings, small multi-family buildings, and accessory dwelling units.	75
Develop a community a wastewater system for Jamaica village to support more housing development in the village.	67
Evaluate whether any town-owned land would be appropriate for housing.	52
The town should not take any steps to promote the development of more housing.	36

The Regional Housing Programs section below provides information on existing programs offered by the State of Vermont and local non-profit organizations to support housing creation and improvements. One strategy the Town could pursue is creating a Housing Committee that could be a resource and help share information about these programs. Other towns in the region, including Londonderry, have Housing Committees and there may be an opportunity for Jamaica to partner with other communities to host resource events for residents and property owners.

The Town of Jamaica does not have zoning bylaws and the primary way the Town provides guidance on the location and intensity of residential uses is through the Town Plan, and specifically the Land Use Chapter. Under Vermont's Land Use and Development Law (Act 250), a permit is required for the subdivision of land creating 6 or more lots within a period of 5 years or for the construction of 10 or more housing units. As part of the Act 250 permitting process, the State must consider whether a proposed development is in conformance with the Town Plan.

One question in the community survey was where residents would like to see future residential growth. The highest support was for residential growth in Jamaica Village and within already existing residential areas and neighborhoods, as shown in the chart below.

Jamaica Community Survey for 2025 Town Plan Update



The primary future land use districts for residential development in Jamaica are the Village and Residential Districts. The Village District includes Jamaica Village and Rawsonville. The Residential District includes areas with larger existing residential subdivision, including along Route 30, West Hill Road, Cole Pond Road, and River Road. In Jamaica Village, density is encouraged not to exceed one unit per acre, although there may be opportunities for higher density on existing small lots where State potable water and wastewater permitting can still be met. The Town Plan limits density to one unit per acre in Rawsonville and two units per acre in the Residential District. The Town Plan supports different housing types within these areas, with the greatest variety encouraged in Jamaica Village.

One of the biggest constraints on housing growth in Jamaica Village is the lack of municipal water or wastewater infrastructure. As discussed elsewhere in the plan, the Town is investigating the development of a community wastewater system in the village. Municipal wastewater is important for maintaining existing housing as residential properties with failing septic systems may not be able to replace them

given current State requirements. This infrastructure can also support new residential development at higher densities because there is not the constraint of needing sufficient land area for an on-site system.

Regional Housing Programs

The Windham Windsor Housing Trust (WWHT) based in Brattleboro creates and manages affordable housing through a variety of program that serve low- and moderate-income residents in the region. WWHT does not currently have any properties in Jamaica that it manages. WHHT offers the following programs to eligible residents and property owners to support the continued availability of safe and affordable housing:

- Shared Equity Program: this program provides income-eligible homebuyers with grants to assist with purchasing a home and technical assistance with obtaining a mortgage.
- Green Mountain Home Repair: this program provides low cost loans for home owners to complete health and safety improvements and increase energy efficiency if income eligibility criteria met.
- Vermont Housing Improvement Program: this program offers grants from the State for up to $30,000 (efficiency to 2-bedroom units) or $50,000 (3+ bedroom units) to property owners to complete repairs to vacant rental units to bring them into compliance with health code guidelines.

Southeast Vermont Community Action (SEVCA) provides housing stability services to assist tenants with back rent payment, security deposit assistance, referrals to area shelters, and landlord-tenant mediation. SEVCA also operates home weatherization and fuel assistance program for income-eligible homeowners and renters. Efficiency Vermont also provides homeowners with incentives to complete energy efficiency projects, which can result in lower overall housing costs.

Housing Policies:

1. Support private non-profit and for-profit organizations in the development, rehabilitation, and conservation of affordable and workforce housing in Jamaica.
2. Encourage the rehabilitation of existing housing to ensure safety and an adequate standard of living.
3. Work cooperatively with neighboring towns and the Windham Regional Commission to ensure an appropriate dispersal of affordable housing throughout the region.
4. Encourage two-family and multi-family residential housing opportunities, and the development of accessory dwelling units on single-family residential properties.
5. Require that housing development is coordinated with the adequate provision of public utilities, facilities, and services.
6. Support new housing locations that are in close proximity to more densely populated areas that have easy access to services and potential for public transportation.
7. Provide Jamaica residents and property owners with information about programs and funding opportunities that support the development and rehabilitation of housing and residential energy conservation measures.
8. Support public and private partnerships that identify potential sites for new affordable and workforce housing development.

Priorities for Action:

1. Consider creating a Housing Committee to assess and recommend ways to improve housing affordability for residents. (Selectboard, Planning Commission)
2. Consider a short term rental ordinance to help monitor short-term rental activity and address areas of concern regarding impact on adjacent properties and neighborhoods. (Selectboard)
3. Work with the Windham Regional Commission and neighboring towns to plan for housing to meet the needs of Jamaica and the surrounding region. (Selectboard, Planning Commission)

XI. TRANSPORTATION

Road Network

The transportation of people, goods, and materials in Jamaica occurs almost entirely on State and Town highways. Pedestrian travel is a significant means of transportation in the village of Jamaica and hiking and bicycling occur along all the country lanes and byways of the entire town. Town highways are divided into four classes according to use and condition. The total of road miles in Jamaica, by classification, is as follows:

Table 3-1: Town and State Highway Mileage

Type of Highway	Number of Miles
Class 1 Town Highways	0
Class 2 Town Highways	6.44
Class 3 Town Highways	42.02
Class 4 Town Roads	3.10
Legal Town Trails	18.81
State Highways (VT-30 & VT-100)	14.675

Source: 2023 VT Agency of Transportation Town Highway Map

Vermont Routes 30 and 100 are identified as major collector routes in the regional transportation plan and serve most of the traffic bound for and passing through Jamaica. These routes connect Jamaica's village centers and have scenic qualities valuable to the recreation/tourism industry as well as local residents. Increasing traffic volume on Vermont Routes 30 and 100 present a challenge to the town and careful attention must be given to planning development along these routes.

Speed on Route 30 in the village areas is a serious problem and threat to the safety of Town residents and visitors. The Vermont Department of Transportation's 2012 – 2016 High Crash Location Report indicated that the section of Route 30 through the village of Jamaica is a "high crash section" on its highway network. Traffic calming techniques designed to reduce speeds or redirect traffic flow have the potential to mitigate this problem. For example, the Town has implemented lower speed limits and installed Town welcome signs, electronic speed indicator signs, and dynamic stripes in an effort to reduce the speed of traffic and improve pedestrian safety in the village. In recent years, new businesses have opened in Rawsonville resulting in more traffic and pedestrian safety concerns in this area. Appropriate traffic calming techniques should also be explored for Rawsonville.

Jamaica recently participated in a regional planning process managed by the Vermont Department of Transportation to address issues related to travel conditions and traffic calming along the Route 30 corridor. The Route 30 Corridor Plan was completed in 2021 and updates the State's last corridor management study completed in 1999. Through stakeholder engagement, the plan identifies the following short-term and long-term projects to improve travel conditions along the corridor in Jamaica:

- Improve and expand village sidewalks
- Implement village traffic calming techniques
- Install speed cart during peak tourist travel times
- Complete bridge improvements and repaving
- Pursue a study on fixed route bus service for Route 30

A large percentage of Jamaica's roads are Town-owned back roads. Speed is a major concern on these back roads, as well as on the major collector routes. In 2022, the Selectboard adopted a Traffic and Parking Ordinance to promote safety, provide good traffic flow, and assist the Town in the maintenance

of its streets and highways. Based on engineering and traffic studies, the Ordinance establishes specific speed limits on portions of Town roads. Since the Town of Jamaica does not have a local police department, it is difficult to enforce speed limits on the many miles of back roads. The Town relies on the Windham County Sheriff's Department for enforcement. The Ordinance also establishes a "No Parking" zone on West Windham Road at the Hamilton Falls Natural Area, which is a popular destination and travel lanes can be reduced from on-street parking. Consideration must be given to motorist and pedestrian safety on Jamaica's back roads during future development planning.

The three principal Town maintained highways which link Jamaica with other destinations in the Upper West River Valley include: South Hill Road (Town Highway #35), Pikes Falls Road (Town Highway #1), and West Jamaica Road (Town Highway # 30). South Hill Road is a steep rugged road which used to be used primarily by local residents, but now is more widely used as a shortcut from southerly towns, such as Wardsboro, Dover, and Wilmington, through Jamaica village and northward, taking the place of Route 100. There is continued concern regarding the volume and speed of traffic on South Hill Road, Pikes Falls Road and, to a lesser extent, West Jamaica Road, associated with development at the Stratton Mountain Resort and vacation housing associated with Resort expansion. Alterra, the owner of Stratton Mountain, has taken steps through the installation of signage to direct traffic away from Pikes Falls Road and onto the main Stratton access road and Route 30. Resort traffic should continue to be directed away from local roads.

The scenic qualities of Pikes Falls Road and West Jamaica Road are unique in the Town. Both roads wind through ravines and along scenic segments of North Branch Brook and Ball Mountain Brook. Travel on these roads is part of the recreational experience of the area. Given the steep terrain and proximity to waterways, these roads are also more vulnerable to flooding and erosion. Both Pikes Falls Road and West Jamaica Road sustained significant damage from the floods of July 2023, and the Town is taking steps to improve the flood resiliency of the roads. Because of their scenic value, physical constraints, flood vulnerability, and the rural character of the area they serve, major upgrades to these roads, beyond regular maintenance, are not considered feasible or desirable.

Many local roads in Jamaica are unpaved. Gravel roads and driveways are a potential source of sediment and phosphorus to surface waters. In recent years, winters have become milder and the typical "mud season" of late March and April can now occur at different times over the course of a winter with multiple free-thaw cycles. This can result in increased maintenance costs for the Town and more difficult driving conditions for residents. State programs, such as Better Roads, educate communities on proper road construction, access policies, and road and bridge standards. They focus on inventory and maintenance of local roads and advocate practices and techniques to preserve the integrity and vitality of roads as well as bridges, culverts, drainage, and ditching.

Jamaica has an infrastructure inventory that includes information on the condition, material, and dimensions of bridges and culverts in town. By maintaining this type of inventory, Jamaica can potentially reduce the required local funding match on road projects by up to one half. The inventory was last updated in 2019 and may be incomplete in some areas.

The town of Jamaica highway system depends on 28 bridges, 17 of these bridges are owned by the State of Vermont and 11 are owned by the Town of Jamaica. Two of the town bridges are a high priority for repair or reconstruction in the near future. The town will continue to work with the WRC and the VTrans District staff to seek advice about if repair or replacement is appropriate for each bridge and about other possible approaches to managing these infrastructure concerns.

Jamaica Bridge number 32, also called the State Park Bridge, carries Depot Street over the West River leading to the Jamaica State Park entrance. The bridge currently has a posted weight limit of only eight

tons, which limits activities including logging, large recreational vehicles, emergency access, firewood deliveries, and dam repairs. The State is currently developing design alternatives for the replacement of the bridge, and it is anticipated to be constructed in 2028.

Jamaica Bridge number 24 carries Depot Street over Ball Mountain Brook leading to the Jamaica Village School and the Jamaica State Park entrance A primary concern about the design of the bridge is its center pier, which debris and materials can get caught on during flood events.. Because of the removal of a center pier on an upstream bridge, this bridge presents a more significant hazard mitigation concern for future extreme weather. However, the Town has also recently completed debris removal on Ball Mountain Brook upstream from the Depot Street bridge, which should help improve water flow during high water levels.. The Town should continue to work with WRC and VTrans to monitor the condition of this bridge and to understand available funding for its repair or replacement.

Jamaica is in compliance with the State's Municipal Roads General Permit (MRGP) requirements. The MRPG requirements were established to reduce stormwater damage to local roads, increase flood resiliency, and reduce the amount of road sediment draining into water sources. The town completed a road erosion inventory with WRC in 2018 and since then has completed several road ditching, drainage, and widening projects to meet MRGP guidelines. The town recently received a Better Roads grant from the State to update the road erosion inventory, which is scheduled to be completed by 2027. The town will continue to participate in educational opportunities and work with the WRC and VTrans to facilitate road maintenance practices and capital improvements to improve town roads.

Because so many Jamaica residents depend on automobile travel to get to their jobs, snow removal is a critical element of the town's road management responsibility. The state is responsible for snow removal on Route 30 and Route 100. The town is responsible for the remaining 48 miles of Class 2 and 3 town roads. The Town has adopted a Winter Operations Policy that outlines its procedures for snow and ice control and removal. With the exception of a small amount of roadway mileage in the northeast corner of Jamaica, Town-owned and maintained snow plows are used for snow removal. Snow removal for the roadways along the Windham/Jamaica border is done under contract. Snow removal is accomplished according to a priority system. Class 2 roads are cleared first, with South Hill and Pikes Falls Roads at the beginning of their routes. The remaining roads are cleared in order of population density, often with snow plow operators working well in excess of eight-hour work days to ensure town roads are cleared as expeditiously as possible. Adjustments can be made in response to special needs. Because snowfall can vary significantly from year to year, snow removal budgets are based on worst case snow fall with any unused funds held in reserve of other unanticipated needs.

Local Road Policies

The Selectboard is responsible for the maintenance and repair of public roads in Jamaica. In order for private roads or driveways to access town roads an access permit is required. Applicants must adhere to Vermont Agency of Transportation's driveway design standards. Jamaica also has adopted road design specifications. The regulations are available from the Jamaica Town Clerk.

In the past, the Town has had a Class 4 Road Policy Statement, but does not have such a policy in effect currently. There are no minimum maintenance requirements for Class 4 town highways and most towns do not maintain these highways. Towns can adopt policies addressing items such as weight limits, speed limits, restrictions on use during mud and snow season, and requiring temporary access permits for heavy equipment on Class 4 roads. The Town should consider having a Class 4 Road Policy to set clear policies on the limitations of municipal maintenance and private property owner responsibilities for maintenance.

Alternative Forms of Transportation

At present, public transit in Jamaica is limited to specialized services to targeted populations. Southeast

Vermont Transit (SEVT) provides paratransit and elderly/disabled service to Windham County towns. Fixed route bus service is currently not available in Jamaica. In 2021, VTrans in partnership with SEVT and WRC initiated a study to evaluate the feasibility of a fixed bus route on Route 30 between Brattleboro and Stratton Mountain. This would provide many more opportunities for Jamaica residents to access job opportunities and services in larger population centers without needing a private vehicle.

Relatively low usage and population densities, weather conditions, automobile-oriented development patterns, and lifestyle preferences keep biking and walking from serving as a significant mode of transportation in Jamaica. In Jamaica Village, where usage and population density is relatively high, walking can be a viable alternative to automobile use, especially for short trips or recreation. Jamaica Village does have a limited sidewalk network, which was upgraded in 2016. The Town is responsible for clearing snow from the sidewalks. Maintenance challenges include varying sidewalk widths, requiring different equipment for snow removal, and that snow is plowed onto adjacent sidewalks from clearing Route 30. The proper maintenance of sidewalks during winter months is important to ensure they continue to be accessible for pedestrians.

As growth occurs in the compact areas of Jamaica Village and Rawsonville, sidewalks and other paths for non-motorized transportation should be considered or improved. Adequate pedestrian and bicycle access to village districts enhances marketability, reduces vehicular traffic, ensures greater safety, and provides for recreational opportunities. One opportunity is improving the existing sidewalk on Depot Street in Jamaica Village and extending this sidewalk to the Jamaica Village School and the bridge to Jamaica State Park. With the State planning to complete construction on the new State Park Bridge in 2018, this is a good time for the Town to pursue a study for pedestrian improvements on Depot Street that could be tied into this project.

Pedestrian improvements may also be needed in Rawsonville with the growth in the number of businesses in the area. Residents on Upper Bear Lane and Diers Road could benefit from pedestrian facilities from these residential areas to Rawsonville businesses. Pedestrian facilities would also have the benefit of helping reduce vehicle speeds through Rawsonville.

Since 1996, the Friends of the West River Trail (FWRT) has been working with the towns of Jamaica, Londonderry, and Townshend, along with the Windham Regional Commission and State and Federal government agencies, to plan and maintain a trail roughly following the rail bed of the former West River Railroad (https://westrivertrail.org). The steering committee overseeing this project has the objective of connecting a bicycle and pedestrian pathway along the West River corridor from South Londonderry through Jamaica and continuing to the Townshend Dam. Comprehensive planning and some portions of the project have already been constructed. Most notably in the town of Jamaica, a pedestrian bridge crossing Cobb Brook in Jamaica State Park was completed in 2000, and in 2003, a 1.7 miles of hard packed, handicapped accessible trail (Pratt's Bridge Trail), was completed. This portion of the trail extends from Winhall Brook Campground in Londonderry to Pratt's Bridge in Jamaica. This portion of the trail was completed in partnership with the Paralyzed Veterans of America.

The Jamaica Area Mountain Bike Association (JAMBA) was formed in 2019 and has focused on constructing a mountain bike trail network at the Jamaica Village School (https://jambavt.org). JAMBA has also discussed trail access on private properties in Jamaica. While the focus of JMBA is on recreation, there may be opportunities to promote some of these trails for transportation purposes as well.

Transportation Policies:

1. Require that any project or regulatory change for existing State highways be consistent with the policies of this Town Plan.
2. Encourage development to incorporate pedestrian links to existing sidewalk networks.

3. Minimize the number of new access points to State highways in order to promote the safe integration of local traffic along these through routes.
4. Restrict construction of new roads or improvements to existing Class 4 roads and legal town trails in Rural Resource Areas.
5. Prohibit new permanent roads from being constructed close to any roadless stream segment identified in the Town Plan as having significant ecological or recreational value. When access to an area or crossings cannot avoid a stream corridor, the road shall be designed with an adequate buffer to minimize disruption in order to preserve the ecological and/or recreational value.
6. Require that all road construction activities preserve the rural character of the landscape and limit adverse impact upon important natural areas. Properly grade and seed all road cuts and embankments to minimize erosion. When creating new roads, provide an adequate buffer distance and plant cover from the edge of road to surface waters.
7. Maintain and improve bridges on Town roads in a manner that ensures public safety and is consistent in terms of scale and capacity with the use and classification of the road.
8. Establish speed limits on Town roads that respect safety, the rural character, and multiple uses of these byways.
9. Encourage and support the continued planning and development of the West River Trail continuously from Townshend Dam to South Londonderry.
10. Promote the use of Class 4 roads, legal trails, trails on public land, and trail easements on private land as part of a trail network throughout the Town.
11. Encourage and support opportunities for public transportation in and through Jamaica, including special accommodations for the elderly and handicapped.
12. Encourage and support the development of traffic calming strategies for the Route 30 corridor.
13. Repair and maintain sidewalks in Jamaica Village, including a plan for snow removal, in order to promote a safe pedestrian environment.
14. Ensure the availability of adequate and safe parking in Jamaica Village.
15. Encourage strategies and techniques to increase safety on the Town's back roads.

Priorities for Action:

1. Continue to work with state and regional officials toward implementation of traffic calming on Route 30. (Planning Commission, Selectboard)
2. Maintain a road inventory that lists each road, its mileage, and its current condition. Maintain a bridge inventory that lists each bridge and its current condition. Use these inventories to prioritize and plan for needed improvements. (Selectboard, Road Commissioner, Highway Department)
3. Review options for adequate and safe parking in Jamaica Village and make recommendations for improvements, if needed. (Planning Commission)
4. Encourage resort traffic to be directed away from South Hill Road and Pikes Falls Road. (Selectboard)
5. Implement a maintenance plan, including snow removal, for sidewalks. (Road Commissioner).
6. Complete a feasibility study for sidewalk improvements on Depot Street from Route 30 to Jamaica State Park. (Selectboard, Planning Commission)
7. Explore traffic calming strategies in the village of Rawsonville to improve pedestrian and traffic safety. (Selectboard, Planning Commission)
8. Consider the adoption of a Class 4 Road Policy. (Selectboard)
9. Continue to work with VTrans on the final design and construction of the State Park Bridge. (Selectboard, Road Commissioner).

XII. FLOOD RESILIENCE

Background

Jamaica's historic settlement pattern is along the West River and its tributaries, including Ball Mountain, Wardsboro, and Turkey Mountain Brooks. These areas provided relatively flat terrain, rich soils for agriculture, and proximity to waterways for water supply and to power mills. However, much of the area where human activity has altered the landscape is within the floodplain of these rivers and brooks, which has increased Jamaica's vulnerability to flooding over time. This is of particular concern in the Village of Jamaica where there is a concentration of public, civic, residential, and commercial buildings and critical public infrastructure that are vulnerable to flooding. The mountainous and steep terrain on either side of many of the waterways in Jamaica include smaller, unnamed streams that can quickly overflow their banks during heavy rain events causing flood risks to properties and road infrastructure.

Jamaica is one of the more vulnerable communities in Windham County when it comes to flood risks and the community has been impacted by several significant flood events, the most recent occurrences being Tropical Storm Irene in August 2011 and the "Great Vermont Flood of July 2023." Additional historic flood events in Jamaica are documented in the Town's Local Hazard Mitigation Plan. There are significant costs associated with repairing municipal infrastructure following flood events. While State and Federal funding is available to assist with repairs when a disaster is declared, municipalities often bear the full cost of more localized flood events. Funding assistance is often a reimbursement as well, meaning the Town needs to find funds to pay for repair costs up front and receive aid after the work is completed.

Jamaica is at risk from two types of flooding: inundation flooding and fluvial erosion. Inundation flooding occurs when there is a rise in water levels that results in a flood event. Fluvial erosion occurs when streambanks are eroded by the movement of rivers and streams during storm events. Areas that are vulnerable to inundation flooding are mapped by the Federal Emergency Management Agency (FEMA) on Flood Insurance Rate Maps. Fluvial erosion hazard areas are mapped by the Vermont Agency of Natural Resources (ANR).

This chapter of the Town Plan addresses Jamaica's flood resilience, which refers to a community's ability to anticipate, prepare for, respond to, and recover from a flood event with minimum impact to the well-being of the community, local economy, and the environment. This chapter identifies areas of flood risk and vulnerability in Jamaica and strategies for preparing for future floods. Jamaica has an adopted Local Hazard Mitigation Plan (LHMP), last updated in 2020, that addressed flood hazards and mitigation actions in more detail. The Town Plan incorporates the Jamaica LHMP by reference. Additional information on flood preparedness is available on the State's Flood Ready Vermont website (https://floodready.vermont.gov).

Inundation Flood Hazard Areas

Inundation flooding occurs when there is a rise in water levels in a stream channel or other waterbody that results in water spilling out onto the floodplain. This type of flooding can result from heavy rainfall or snowmelt, or when a stream channel is blocked by ice or debris. Areas vulnerable to inundation flooding have been mapped by FEMA and are referred to as Special Flood Hazard Areas (SFHA). This includes the *floodway*, which is the channel of a watercourse and the adjacent land area needed to convey floodwaters, and the *flood fringe*, which is the remaining area in the larger floodplain.

The Water Resources Map shows the location of SFHAs in Jamaica. Land along the West River from the Townshend border to Jamaica village and then from Ball Mountain Dam to the border with Londonderry is vulnerable to inundation flooding. The entire length of the Wardsboro and Ball Mountain Brooks, and

portions of Turkey Mountain and the North Branch Ball Mountain Brooks, are also within the SFHA. According to Flood Ready Vermont, estimated based on E-911 data there are 123 buildings located in an SFHA, which is approximately 9% of all buildings in town.

For property owners to be eligible for insurance through the National Flood Insurance Program, a town must adopt and administer flood hazard regulations for designated Special Flood Hazard Areas. Jamaica has adopted these regulations and they are administered by the Town Administrative Officer and the Zoning Board of Adjustment. Flood Ready Vermont reports that only 14 buildings within the SFHA have flood insurance policies, approximately 11% of the total 123 buildings in the SFHA.

Fluvial Erosion Hazard Areas

A significant portion of flood damage in Vermont occurs outside of the FEMA mapped floodplain areas along smaller upland streams and road drainage systems that fail to convey stormwater runoff. This type of flooding is referred to as fluvial erosion. If a river is not able to overflow its banks, the power of the trapped water increases and eventually begins to dig down or cut out to the sides. Where roads, bridges, culverts, or buildings are nearby, this erosion can cause significant damage. Fluvial erosion can also result in large scale landslides as stream banks become destabilized. Property owners in fluvial erosion hazard areas may be outside of a FEMA mapped SFHA and be less aware of their flood risk.

The Vermont ANR released River Corridor maps in 2019 showing the land area along waterways at risk for fluvial erosion. A River Corridor is the area that provides the physical space that a river or stream needs to express its energy and naturally meander without needing to dig downwards into or cut out to the sides of a stream bed. The River Corridor areas mapped by ANR include a 50-foot buffer on either side of the meander belt to reduce disturbance and allow for bank stabilization.

The ANR mapped River Corridors are shown on the Water Resources Map. There is significant overlap between mapped River Corridors and SFHAs. The full lengths of the West and Winhall Rivers, and the Ball Mountain, North Branch Ball Mountain, Wardsboro, Turkey Mountain, and Mill Brooks are identified as River Corridors. It is important to note that fluvial erosion can occur outside of River Corridors as well, in particular along smaller streams within areas of steep terrain. According to GIS mapping analysis by the Windham Regional Commission, there are an estimated 210 structures within a River Corridor based on E-911 data. These structures are concentrated in Jamaica village, along Route 30 and Route 100, and sections of Pikes Falls and West Jamaica Roads.

Towns can adopt fluvial hazard regulations that apply to River Corridor areas to mitigate the impacts of fluvial erosion. Jamaica's current flood hazard regulations do not address fluvial erosion hazard areas. Typically, regulations address the types of structures and land use activities permitted within the River Corridor and may include vegetation and buffer requirements along rivers and streams. Benefits include reducing the potential for property damage and risks to public safety and improving natural river functions. Towns with adopted River Corridor regulations are also eligible for additional funding through the State's Emergency Relief and Assistance Fund (ERAF) in the event of a declared disaster.

Landslides

An accompanying risk of flood events are landslides. In addition to slope saturation from heavy rainfall and snow melt, road construction, development activities, and deforestation also contribute to increased landslide risks. In the last several years there have been significant landslides along Ball Mountain Brook and North Branch Ball Mountain Brook, impacting Pikes Falls and West Jamaica Roads and the properties that gain access from these roads. There are also areas prone to landslides along the Winhall River between Rawsonville and Bondville in the adjacent town of Winhall. A large landslide resulting from the July 2023 floods led to the closure of the West River Trail in Jamaica State Park. As of the submission of this town plan, the trail remains closed because the area is still unstable. As the region sees

an increase in annual precipitation and the frequency of heavy rain events there is an associated risk of increased landslides in Jamaica.

Addressing Flood Resilience

There are several different strategies a community can use to reduce the risks associated with flooding, many of which Jamaica has already implemented or is pursuing. Following the July 2023 floods, Jamaica has completed extensive work on town roads and culverts to improve drainage. In 2024, the Town hired a contractor to remove debris from Ball Mountain Brook just north of Jamaica village. Debris accumulation along this section of Ball Mountain Brook was creating impediments for water flow and increasing flood risks for properties along the brook. This material has been crushed and used to reinforce West Jamaica and Pikes Falls Roads. The following are four main areas towns can consider to improve resilience:

River Corridors

To minimize risks within mapped River Corridors and SFHAs, towns can work to conserve land in identified flood hazard and river corridor areas and upstream lands, and discourage further development in high risk areas. There are large areas of federal, state, municipal, and private conservation land in upstream areas that drain into rivers and brooks in Jamaica. Many parcels in these upland areas are forest tracts enrolled in the Current Use program, and there may be opportunities for additional conservation of these private lands. A large portion of these upland areas are designated as Conservation Areas on the Proposed Land Use Map and the Town Plan states the overall density in these areas should not exceed one residential unit per 27 acres. Jamaica has adopted flood hazard regulations, but could also consider incorporating fluvial erosion hazard standards within these regulations.

Vulnerable Settlements

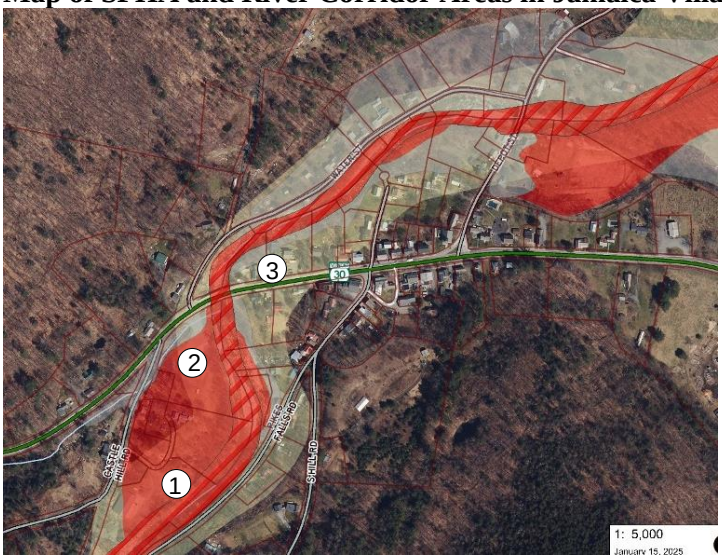
There are a large number of existing buildings in Jamaica that are located within an SFHA, River Corridor, or both. Property owners may not be aware of their flood risks or steps they can take to reduce them. For example, property owners can elevate heating and HVAC utilities, propane tanks, and convert basements for flood-vented flood water storage. Property owners can help maintain or plant native vegetated buffers along streams.

For the most at-risk structures, towns can support property owners seeking a buyout from FEMA to remove structures and create additional flood storage area and green space. Properties receiving a buyout then get transferred to municipal ownership. Several properties received FEMA buyouts after the July 2023 floods and there may be more opportunities to turn these sites into community resources. In 2022, the Water Street Land Use Committee was formed with a mission of improving the town-owned property on Water Street where five houses were washed away during Tropical Storm Irene. The Committee has been working on maintaining the lot as a healthy habitat for wildlife and wildflower meadow for pollinators.

Safer Areas

In addition to helping existing vulnerable settlements reduce risk, towns can also plan for development in preferred, safer areas that are less vulnerable to flooding. For example, a large area of Jamaica village is located in an SFHA, River Corridor, or both. The map below shows the SFHA (red) and River Corridor (light green) in the village. Much of the flood risk is associated with fluvial erosion. For example, properties on Water Street that were impacted by Tropical Storm Irene are not in an SFHA, but are in the mapped River Corridor. The Jamaica Fire Department and Town Garage are located in the SFHA and River Corridor. Both of these are considered to be critical facilities that are needed to respond to floods or other natural hazard events.

Map of SFHA and River Corridor Areas in Jamaica Village



Map Location Key
1. Town Garage
2. Jamaica Fire Department
3. Post Office

Source: Vermont Flood Ready Atlas

The Town may want to explore planning for growth and development in the village in areas that are outside of flood prone areas. These types of studies can provide more detailed flood modelling based on current and expected future conditions, identify stormwater management and infrastructure needs, and identify specific areas in town that are likely to be safer from future flooding.

Watershed-Wide

Because development patterns upstream impact communities downstream, it is important to engage in storm water management efforts across the larger region. One example is the ANR basin planning process, which looks at flood resiliency and storm water management in addition to addressing water quality planning. Each basin in Vermont has a Watershed Planner that works with towns on providing information and project implementation assistance. Towns can also include policies in their municipal plans restricting development on steep slopes, which Jamaica has done in the Natural Resources chapter of the Town Plan.

Flood Resilience Policies:

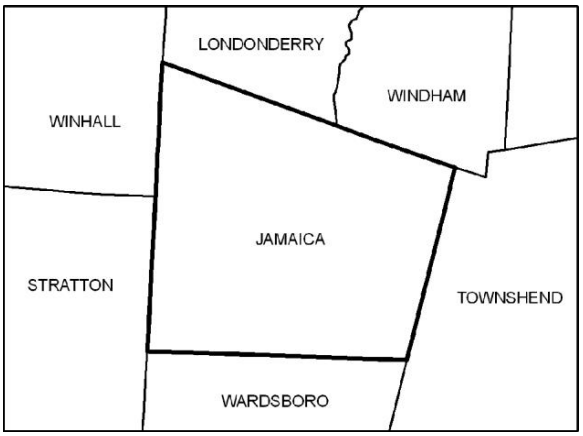
1. Support the protection and restoration of River Corridors, floodplains, wetlands, and upland forested areas that attenuate and moderate flooding and fluvial erosion, in order to reduce the risk of flood damage to infrastructure, property, people, and the environment.
2. Development activities in identified flood hazard, fluvial erosion, and River Corridor Protection Areas should be avoided. If new development is to be built in such areas, it should not exacerbate flooding and fluvial erosion.
3. Support flood emergency preparedness and response planning.
4. Maintain vegetated riparian buffer zones on streams, rivers, wetlands, ponds, and lakes consistent with State guidelines.
5. New or replacement bridges and culverts should be designed and constructed to adequately handle stormwater and flood waters, providing for a 100-year flood event at the minimum.

Priorities for Action

1. Ensure that the Town is familiar with Flood Insurance Rate Maps (FIRMs) and ANR River Corridor maps. (Planning Commission, Selectboard, Zoning Board of Adjustment, Floodplain Administrator)
2. Update the Flood Hazard Area Regulations as needed to meet current standards and consider the inclusion of fluvial erosion hazard regulations. (Planning Commission, Selectboard)

3. Seek grants and other financing to improve the flood resiliency of critical municipal infrastructure and facilities located in the SFHA, River Corridor, or other flood-prone areas. (Selectboard).
4. Maintain and regularly update the Jamaica Local Hazard Mitigation Plan and the Local Emergency Operations Plan (Planning Commission, Selectboard).
5. Participate in watershed-level planning with other towns in the region to address common flood resiliency goals (Planning Commission, Selectboard).

XIII. TOWN PLAN COMPATIBILITY



Compatibility of Plans with Neighboring Towns and the Region

Jamaica is located in the northwest quadrant of Windham County. It shares borders with the towns of Londonderry, Windham, Wardsboro, Townshend, Stratton, and Winhall (the latter is in Bennington County). The six surrounding towns and Jamaica participate in the Windham Regional Commission, which provides a forum for addressing regional issues in southeast Vermont.

Implementation of this Plan will require cooperation and coordination across Jamaica's borders. Roadways, watersheds, schools, and natural resources are shared with our neighboring communities. The following section provides a discussion on the compatibility of the Jamaica Town Plan with the plans for surrounding towns and the Windham Region.

Londonderry: Town Plan adopted on October 2, 2017
Londonderry borders Jamaica along the northwest part of Town. Route 100 is the main traffic corridor in both communities and serves as an asset as well as an area of concern. The easy access to a well-maintained State Highway can lead to development pressure. Londonderry's border with Jamaica is listed as Rural Residential, which appears to allow for low-density residential development, agriculture, forestry, and other compatible land uses that maintain the rural character, scenic landscape, and natural resources. Jamaica has designated this area mostly as Rural Resource lands, with a small area of Residential and Conservation. While both towns discouraged strip development, there is a potential for this area to be over developed due to the proximity to Route 100. It is in Jamaica's interest that it remains involved with any land use changes and development in this area. Jamaica recognizes that there are several large contiguous areas of forest that extend from Londonderry into Jamaica, many of which are already conserved.

Windham: Town Plan adopted on December 16, 2019
The border between Jamaica and Windham is primarily steep and forested terrain with little access. Almost half of the border is publicly owned land (Jamaica State Park) or privately owned land with a conservation easement. The hamlet of South Windham is accessed via Windham Hill Road in the northeast corner of Jamaica. Several residential properties in northeast corner of Jamaica can only be accessed through Windham on West Windham Road. The Town of Windham's Zoning Regulations and Town Plan policies are compatible with this Plan.

Wardsboro: Town Plan adopted on July 9, 2019
Most of Wardsboro's common border with Jamaica consists of farms, fields and forestlands. It is classified mostly as Resource Residential. The topographical constraints make development difficult in

this area, which should help the compatibility with Jamaica's Rural Resource and Conservation Areas. There is a small area of this border in Wardsboro that is proposed as Rural Residential; however, much of this area has already been developed for residential uses (Snow Mountain Farms development). In addition, there is a very small area of the border proposed as Village Residential and Village Commercial, which is centered on Main Street in Wardsboro Village and encompasses areas that have largely already been developed.

Townshend: Town Plan adopted on September 26, 2017
Both Jamaica and Townshend share the vision on their common border. The Townshend Town Plan designates the border primarily as Resource Lands – low impact and low density. There are a few small areas designated as Rural Residential along Route 30 and Windham Hill Road. Jamaica's border is designated as Conservation area or Rural Resource area. Both towns are working cooperatively to mitigate the impacts of traffic along Route 30 and improve safety.

Winhall: Town Plan adopted on February 19, 2025
Route 100 between Jamaica and Winhall is a main travel corridor for the Stratton Mountain ski resort. The main access road to the ski resort is in Bondville Village, which borders Jamaica. Winhall owns the Winhall Municipal Forest in Jamaica. The majority of Winhall's border with Jamaica is zoned residential for moderate density; on the Jamaica side, a lower density of development is encouraged. This area should be closely observed for traffic and environmental concerns given ongoing development pressure associated with Stratton Mountain.

Stratton: Town Plan adopted on December 14, 2020
At this time, there is not a lot of development along the border between Stratton and Jamaica, which is proposed as Residential. The area around the Stratton Mountain Resort base is designated as Commercial/Residential and as a designated growth area. As this Commercial/Residential area grows, Jamaica will see increased traffic on Pikes Falls Road as this provides an alternative to Route 30 to access the resort. As noted in this Plan, because of the scenic value, physical constraints, and the rural character of the area that Pikes Falls Road serves, upgrading this road is not considered feasible or desirable. Furthermore, there is regionally important black bear travel corridor that has been identified by the Vermont Agency of Natural Resources connecting an important bear habitat on Sage Hill to Stratton. The intensity of uses that Stratton proposes in the Commercial-Residential Districts could impact that ability of the bears to travel between the important bear habitat in each town. The towns of Stratton and Jamaica should work cooperatively to protect the lands with important conservation value.

Windham Regional Commission
2014 Regional Plan re-adopted June 29, 2021
The Windham Regional Plan is intended to provide guidelines for the planning and coordination of change and development which will, in accordance with present and future needs and resources, best promote the health, safety, and welfare of the citizens of the region. The proposed land use plans in both the Jamaica Town Plan and the Regional Plan are similar with one difference being that Jamaica recognizes Rawsonville as a Village District while the Regional Plan proposes Rawsonville as Rural Commercial area. Residents around Rawsonville strongly identify with this as a Village. Despite the different name, the Jamaica Town Plan policies and the Windham Regional Plan policies are compatible in that they both encourage a development pattern of compact mixed uses that are designed and scaled to be pedestrian oriented. As proposed, Jamaica does not intend or expect that this Plan will prevent any current or future efforts to implement that Windham Regional Plan.

XIV. IMPLEMENTING THE TOWN PLAN

Overview

The Jamaica Town Plan is a statement of vision that plans for the future of the Town. Used properly, the Town Plan provides guidance for elected officials and citizens charged with decision making for Jamaica. By making a commitment to the principles and goals laid out in the Town Plan, local government secures an effective and well-defined framework for meeting challenges and achieving long-term goals.

The ongoing work of the Jamaica Planning Commission is another important element in the implementation of the Town Plan. The Plan provides the foundation for the annual work program of the Commission. An Implementation Program is provided in Appendix B that summarizes the "Priorities for Action" from each chapter of the Town Plan and suggests who in the Town should lead each effort along with any partners. The Town of Jamaica supports decision making at the most local level possible commensurate with the impacts of the decision. Therefore, we encourage implementation of this Plan first by individuals and then, as needed, by successive levels of government.

Implementation Steps

The following are some, but not necessarily all, of the techniques, strategies and actions available to implement this plan.

Planning Commission Work Program

It is recommend that the Planning Commission and Selectboard meet at least once per year to discuss what the Planning Commission has worked on during the previous year and priorities for the year ahead to implement the Town Plan using the Implementation Program in Appendix B as a guide.

Land Use Regulations

Act 250 requires that any development permitted under its jurisdiction be found to be in conformance with the provisions of the applicable Town Plan. Individuals proposing development subject to Act 250 jurisdiction are encouraged to consult with the Jamaica Planning Commission prior to submitting an Act 250 application. The Town Plan can also inform local recommendations that are considered by the Public Service Board in their review of applications for power generation and transmission facilities and telecommunication facilities (Section 248). Proposed projects under Section 248 are not required to conform to the Town Plan as they are under Act 250.

Capital Budgeting

A capital budget is a program towns can utilize for ensuring that expected capital expenditure needs (e.g., major road improvements, public facility improvements and expansions, vehicle acquisitions, etc.) will be met. By prioritizing a schedule of anticipated capital expenditures and sources of financing, towns are better prepared to meet facility and service needs as they arise.

Land Acquisition

The most certain, and potentially expensive, method for realizing some of the goals of the Town Plan is to purchase or otherwise acquire property, or certain rights to property. For example, by purchasing fee simple interest in land, or by acquiring easements or development rights to land, certain outstanding natural areas in Town can be protected from incompatible development. This technique could be used by the Town or by the Town in association with a land trust, which has the interest and expertise to work with the Town. When considering proposed public land acquisitions, the Selectboard and Planning Commission should evaluate how such acquisitions further the goals and policies in the Town Plan.

Voluntary Actions

Donations of land or conservation easements, restrictive covenants placed on land by the landowner, participation in Act 250 reviews by abutting landowners, and participation by individuals or groups in the continuing planning process, are all voluntary methods available to citizens to further the goals and objectives of the Town Plan. The Planning Commission encourages the use of these techniques whenever they are consistent with the development objectives set forth in the Plan.

Coordination with Neighboring Towns

The effects of growth and change do not respect town boundaries and the consequences of actions that originate in one town are often shared with its neighbor. The Town of Jamaica shall take the initiative to work with its neighbors to address issues which cross town borders. The Jamaica Planning Commission shall endeavor to consult with its neighbors on issues of mutual concern, review and comment on the plans of neighboring towns, and solicit comment from neighboring towns and affected parties when making decisions concerning development and implementation of the Town Plan.

Participate in the Regional Planning Process

The Jamaica Planning Commission, through its Town Representatives to the Windham Regional Commission, shall actively participate in the Regional Planning process and in regional projects of importance to the Town.

Public Information

The Planning Commission shall seek out and provide information, as it comes available, and provide opportunities for public discussion of new issues and concerns as they arise.

XV. TOWN RESPONSE TO VERMONT'S PLANNING GOALS

Goal 1. To plan development so as to maintain the historic settlement pattern of compact village and urban centers separated by rural countryside.

The Town Plan recognizes that future higher density settlement should occur in areas in Jamaica where moderate and higher development already exists. Areas outside of these districts would be maintained as rural countryside. The moderate and higher density areas are delineated on the Future Land Use map as Commercial-Residential Areas, Jamaica Village and Rawsonville. This goal is also supported through the Town's maintenance of a Village Center designation for Jamaica Village. Areas outside of these districts may contain a variety of uses, but should be used in a manner that will protect existing natural resource values of the land, rural character, and their attractiveness to tourists and second homeowners valuing remote homesites. Protecting Jamaica's scenic ridgelines is seen as critically important.

Goal 2. To provide a strong and diverse economy that provides satisfying and rewarding job opportunities and that maintains high environmental standards, and to expand economic opportunities in areas with high unemployment or low per capita incomes.

The Plan encourages small business to locate in Jamaica, especially service-based and professional businesses, home-based businesses, and forestry and agricultural businesses. To further this goal, the Plan has not restricted the location of any particular type of business in any specific area of Town, although they are primarily encouraged in Commercial-Residential Areas, Jamaica Village, and Rawsonville. Broadband internet service is available in areas designated for moderate and high density development. With this critical infrastructure in place, the town should encourage remote work opportunities. Finally, the Town is seeking funding to complete a community wastewater project in Jamaica Village, which is critical for supporting economic development opportunities in the village.

Goal 3. To broaden access to educational and vocational training opportunities sufficient to ensure the full realization of the abilities of all Vermonters.

Jamaica is a member of the West River Education District (WRED), along with Townshend, Newfane, Brookline, and Winhdam. The WRED was formed in 2019 following the passage of Act 46 and is part of the Windham Central Supervisory Union. Currently, elementary school-aged children have the option of attending Townshend elementary or NewBrook elementary, or alternative private school options. Students in 6th through 12th grade attend Leland and Gray Union High School & Middle School in Townshend. The WRED is governed by an 11-member Board, including 2 representatives from Jamaica. While overseeing all schools in the District, Jamaica members ensure the unique interests of the Jamaica Village School and the Town are represented and met. With the passage of H.454 in June 2025, the Town will need to monitor State education reforms on local educational opportunities and continue to advocate for the community's interests.

Goal 4. To provide for safe, convenient, economic and energy efficient transportation systems that respect the integrity of the natural environment, including public transit options and paths for pedestrians and bicyclers.

The Jamaica Town Plan promotes a safe and well maintained road network. It encourages alternative forms of transportation, such as pedestrian and bicycle travel, in all areas of the Town. The Plan encourages the extension of public transportation routes along Route 30. All road building and maintenance shall respect the scenic and resource value of the area served and be consistent with the policies of this Plan. The Plan recognizes the challenge faced by rural villages located along State

highways and seeks to ensure that village districts are protected from the adverse impacts of through traffic and that pedestrian safety is adequately planned for.

Goal 5. To identify, protect and preserve important natural and historic features of the Vermont landscape, including significant natural and fragile areas; outstanding water resources, including lakes, rivers, aquifers, shorelands and wetlands; significant scenic roads, waterways and views; important historic structures, sites or districts, archaeological sites and archaeologically sensitive areas.

Jamaica has done an extensive review of its natural areas, resources, and features, and recognizes the importance of protecting these sites. A thorough inventory of these areas is included in the Natural Resources chapter. The Land Use chapter identifies and discusses the protection of these resources and sites, and specifically through the designation of Conservation areas on the Future Land Use map. Specific features are identified on the various Resource and Special Sites Maps included as part of this Plan. Historic structures and sites are primarily located within Jamaica Village and are addressed in the Land Use chapter.

Goal 6. To maintain and improve the quality of air, water, wildlife, forests, and other land resources.

To a great extent, this goal has been addressed under the response to State Goal 5.

Goal 7. To make efficient use of energy, provide for the development of renewable energy resources, and reduce emissions of greenhouse gases.

The Town has reflected this goal in its Town Plan policies and priorities for action in its Energy chapter and the Enhanced Energy Plan included as an appendix to the Town Plan. The Enhanced Energy Plan includes goals and policies that address energy efficiency and conservation, support the development of renewable energy resources in Jamaica, and reduce greenhouse gas emissions through transportation and land use planning strategies.

Goal 8. To maintain and enhance recreational opportunities for Vermont residents and visitors.

Jamaica residents, second-home owners and visitors place a high value on recreational opportunities. This goal is addressed in depth in several sections of the Town Plan, including the Transportation, Community Services and Facilities, Economic Development, and Land Use chapters. The Plan seeks to protect the quality of the natural environment for recreation and encourages informal recreational activities throughout the Town. Jamaica is home to Jamaica State Park and is in close proximity to major recreational resorts.

Goal 9. To encourage and strengthen agricultural and forest industries.

Although these industries are not as important to the local economy as they once were, they are still important to the Town. The Forestland section of the Plan encourages forest industry in areas well suited for growing and harvesting timber and encourages the cooperative management of small forest parcels. Although not rich in farmland, the Agriculture section of the Plan encourages small-scale production and innovative and non-traditional farming operations that develop specialty products for niche markets. The Land Use chapter also supports the continuation of forestry and agricultural activities in Jamaica.

Goal 10. To provide for the wise and efficient use of Vermont's natural resources and to facilitate the appropriate extraction of earth resources and the proper restoration and preservation of the aesthetic qualities of the area.

This goal has been addressed under the discussion of Goal 5. Specific policies have been developed to address concerns in the Earth and Mineral Resources section of the Natural Resources chapter.

Goal 11. To ensure the availability of safe and affordable housing for all Vermonters.

The Housing chapter includes information on existing housing characteristics and needs in Jamaica, and a variety of approaches to address the availability of safe and affordable housing. A diversity of housing types, costs, and locations is encouraged to promote a diverse population.

Goal 12. To plan for, finance and provide an efficient system of public facilities and services to meet future needs.

The Town recognizes that the community facilities and services it provides are the heart of Town government. As such, a significant portion of the Town Plan addresses community facilities and services issues.

Goal 13. To ensure the availability of safe and affordable child care and to integrate child care issues into the planning process, including child care financing, infrastructure, business assistance for child care providers and child care work force development.

The Town Plan recognizes that accessibility, affordability, and quality of child care affects parents' ability to enter the workforce, be productive while at work, and remain employed. The Plan supports the provision of childcare for supporting the community's local economy and attracting and retaining young families.

Goal 14. To encourage flood resilient communities.

The Plan addresses this goal in the Flood Resilience chapter. The Plan identifies areas in Jamaica vulnerable to inundation flooding and fluvial erosion and makes recommendations on how the community can become more flood resilient.

Goal 15. To equitably distribute environmental benefits and burdens as described in 3 V.S.A. Chapter 72.

The Town Plan addresses and provides for environmental benefits equitably across the community. No population would share a disproportional impact of environmental burdens based on the policies in the Plan.

APPENDIX A - Energy Element with Energy Maps Importance of Enhanced Energy Planning

Introduction

Energy planning is important to Jamaica because, as concerned and responsible citizens, we recognize the need to reduce carbon based pollution (CO2) of the atmosphere through a realistically executable energy plan, one that preserves the nature of our town prized by both our residents and many vacation home owners. We further recognize that advances in energy technology will offer significant cost savings to our citizens. The objective of Jamaica's Town Plan Energy Element is to meet the requirements of Act 174, which embodies the energy saving and sourcing goals of Vermont's 2022 Comprehensive Energy Plan in a manner that is consistent with Jamaica's long-standing Natural Resources, Land Use, and Economic Development policies.

Though Vermont's energy transformation may take years to implement, it will enhance the vitality of the state and local economy by reducing money spent on fuels pumped, mined or generated elsewhere, improve our health through reduced emissions and increased bicycle and pedestrian mobility options, and improve the quality of our local and global environment through reduced greenhouse gas emissions. This robust Energy Plan is used as a tool to advance the economic and environmental well-being of Jamaica, thereby improving the quality of life for its residents. Furthermore, these energy goals will reduce Jamaica's vulnerability to energy-related economic pressures and, in the long-term, climate change-related natural disasters, and promote long-term community resiliency in a variety of contexts.

The cost of energy in Jamaica, including residential and governmental use (for heating, electricity, transportation, etc.) is estimated to be $3,890,625 per year (see Energy Costs & Expenditures section below for further detail on this estimate). Because a large majority of this energy is imported from outside of Jamaica and the Windham Region, most of the money spent on energy does not directly benefit the local economy. Efforts to reduce the use of energy sources from outside the Town, or shift reliance to locally-produced energy, can improve household financial security and strengthen the local economy.

From an environmental perspective, petroleum and other hydrocarbon-dependent energy is a significant cause of localized environmental damage where those fuels are produced and refined, and the emissions from their use is responsible for human-induced climate change, related climate-change disasters, and ecological degradation. Moderate summer weather and snowy winters are major attractions to the tourists and vacation homeowners that are both essential to our economy and a major factor in our permanent residents' decisions to live here. Any efforts to reduce the use of non-renewable energy and shift to more environmentally-sound energy sources will benefit the Town's environment by contributing, however modestly, to the moderation of greenhouse gas-based climate change's effects on our local climate.

The primary objective of the Energy element of our Plan is to meet the Windham Regional Commission's (WRC) allocation of transportation and home heating energy savings targets in a manner consistent with preserving our town's rural nature, but consistent with the pace at which enabling technology and low-cost financing are available. Jamaica fully embraces renewable energy generation to be met by solar installations and residential wind generators, as well as the goals for energy conservation in home heating and transportation. Additionally, we will explore adding micro hydroelectric generation to our generation mix.

Preserving the Town's natural environment is essential to Jamaica's economy and tax base. Many visitors to our state and virtually all of the Town's residents value the area's natural beauty, including the state's most popular state park. For these reasons, large and small commercial wind energy sources, which by their nature must be located on ridge lines, are not considered appropriate for Jamaica and are therefore

excluded under the provisions of this plan. It is Jamaica's policy to meet regional community renewable energy goals with solar, residential wind, and possibly micro-hydroelectric generation and to prohibit commercial wind development as inconsistent with long-standing Town policies. It is further considered that the regional targets based on current commercially-available technology may prove to be very conservative by 2050. Prohibiting commercial wind development does not interfere with the town's ability to reach its renewable energy goals.

A second objective is to develop a realistically attainable plan. By design, Act 174 targets for key dates are aspirational. Several enabling technologies are necessary to achieve large-scale penetration of renewable energy generation into the power grid. These include energy storage, power electronics, and smart grid architecture and technology, including grid control. While the State's 15% limitation on net metering has been repealed, net metering is still limited by constraints on the size of solar installations the Public Utility Commission will license, 15 kW for homes and 500 kW for commercial sites. Key to reaching the State's goal of 90% dependency on renewable energy will be the development of energy storage and stored energy management technology that enables economically sound use of renewable energy sources, and complete elimination of net metering constraints will be necessary.

Technologies which deal with the variable nature of renewable energy sources and exploit their geographical distribution are necessary to achieve broad utilization of renewable energy sources. These technologies are in various stages of research and commercial development with unknown maturity dates. The cost of renewable energy continues to fall and is predicted ultimately to be much less expensive than fossil fuel-based sources. The combination of low-cost energy and the technology to deliver it to all domestic and industrial energy users will in turn spawn economic models with minimal capital expense and significantly reduced unit costs, enabling us to meet our goals. Our plan will include efforts to keep abreast of these much-anticipated technology and economic trends so that we may be able to take advantage of them as early as possible.

Our third objective is to reduce our citizens' energy expenses. As mentioned above, prices for renewable energy, wind, and solar have continued to decline and are expected to bottom out well below those of fossil fuels. This will allow our town to make significant savings of the $3,890,625 annual energy bill mentioned above. The future cost spread between fossil fuel and renewable sources will be sufficient to finance the upfront capital costs of installations without increasing unit cost and still offer users considerably less expensive energy costs than are currently possible. Both these developments, low unit costs and low capital conversion costs, will align our residents' economic self-interest with our citizenship interest of reducing CO2 emissions. We believe that our citizens will be motivated to act in their economic self-interest, i.e., take advantage of energy cost savings and low capital financing plans. Therefore, we will promote conversion to renewable sources, emphasizing the financial benefits, as soon as technology and economics enable.

While Jamaica can do little to shift the broader state or federal policies, we can influence energy use and production on a local level. In this energy plan, we hope to address Jamaica's local actions for increasing our energy efficiency and promoting renewable energy generation, and overall pathways to become more resilient. We will adopt policies to meet our specific goals as technology and economic developments permit.

Long-Term Vision & Petroleum Dependence

There is a trend toward factoring the "societal costs" into the price of energy; society pays for health costs associated with pollution, environmental clean-up, military protection of petroleum sources, and the continued failure of the Federal government to address the disposal of radioactive wastes. In the long-term, communities who depend on fossil fuels are vulnerable to risks associated with their price and production volatility.

These challenges may significantly increase the cost of conventional energy sources within the next ten to twenty years. As a result, Jamaica will seek to establish reliable energy resources for townspeople and municipal operations in order to hedge against the increasing volatility of hydrocarbon prices, and to reduce the environmental impact of our energy use. Should societal costs be added to energy from conventional sources, the spread between fossil fuel and renewable energy will increase, providing increased market pull for the technologies enabling large-scale renewable energy grid penetration, i.e. 100% net-metering, and business models making it more affordable. The role of clean, alternative energy sources will be expanded and supported.

Category	**2025**	**2035**	**2050**
Efficiency Targets at Benchmark Years			
Residential Thermal: Estimated number/percent of primary households to be weatherized to meet efficiency goals	94 / 22%	203 / 45%	329 / 68%
Residential Electric: Cumulative annual electrical efficiency savings for town residences (kWh) to meet efficiency goals	87,246	500,670	923,616
Commercial Electric: Cumulative annual electrical efficiency savings for town businesses (kWh)	156,870	787,878	710,460
Fuel Switching Targets			
Residential and Commercial Fuel: Estimated number of new wood pellet stoves and high efficiency wood boilers	90	55	31
Residential Fuel: Estimated number of new heat pumps	100	269	396
Commercial Fuel: Estimated number of new heat pumps	48	146	187
Transportation Fuel: Estimated number of new electric vehicles	18	185	435
Transportation Fuel: Percentage of medium and heavy-duty vehicle fuel use attributable to bio-fuels	7%	6%	1%
Use of Renewable Energy			
Transportation: Percentage of total BTUs consumed (for light-duty vehicles)	9%	33%	84%
Heating: Percentage of total BTUs consumed	48%	79%	94%

Table E1
Summary of Jamaica's commitment to meeting allocated energy goals

The Windham region has been assigned updated goals for efficiency improvements, use of alternative fuels, and generation of renewable energy for the benchmark years 2025, 2035, and 2050. The WRC has in turn apportioned these goals to each town (see "Energy Targets, Conservation Challenges, and Energy Equity" section for description of disaggregation methods). This plan commits Jamaica to meeting the goals assigned to it within the constraints imposed by the pace of introduction of enabling technologies and anticipated competitively lower unit cost. They are summarized in Table E1 above.

Jamaica's Current Energy Use

The following paragraphs describe Jamaica's current estimated energy demand in detail. These current use estimations provide a starting point from which the town can develop informed energy policies that directly address its current context and opportunities going forward.

In order to provide a more accurate picture of the energy planning requirements in Jamaica, energy consumption and benchmark targets need to be broken down into three distinct energy sectors. Those sectors are electricity, transportation, and heating. Figure E1 shows how energy consumed in the town as of 2023 is divided between these sectors. The sections below break down the calculations and describe the assumptions made to arrive at these final demand figures.

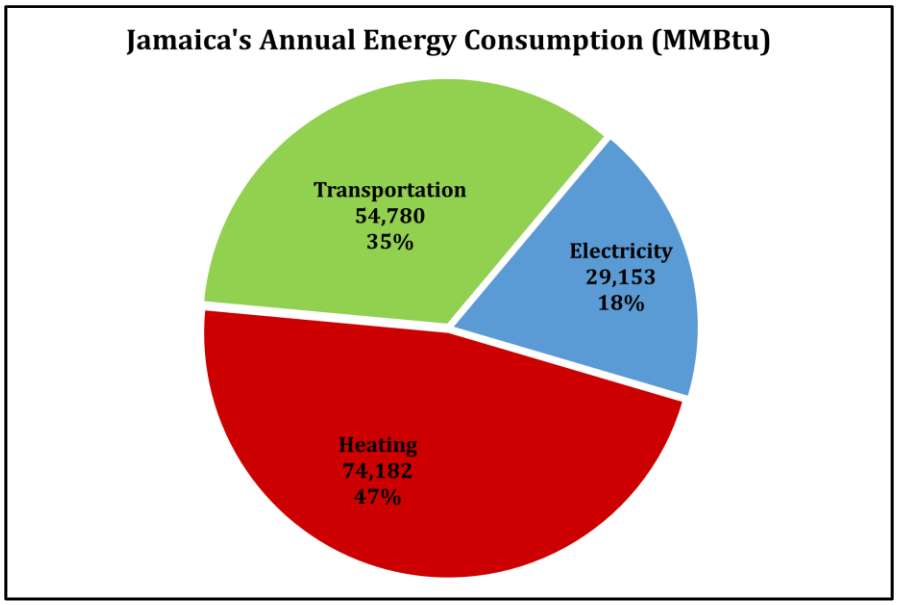


Figure E1
Jamaica Energy Consumption by Sector (2023)

Current Electricity Demand

Jamaica's electric energy supply comes from Green Mountain Power. Electricity consumption data from Efficiency Vermont (EVT) was produced for each town in the state, and is the primary source of this information. This data set combines the energy supplied from all potential electricity providers to that town. It also separates the usage for both the residential and commercial or industrial sectors (see Figure E2 below).

Since the rural nature of Jamaica is characterized by Jamaica Village residences and geographically-dispersed full-time and vacation residences, residential electricity needs far exceed commercial and industrial use. Because of this, current residential use is the greater factor in our planning. To translate this energy demand into dollar amounts, we can estimate a cost of $0.1788 per kilowatt-hour (Vermont state average for electricity costs across all sectors in 2023).[1] Based on the above data, residences in Jamaica paid over $1,333,476 in 2023 for 7,457,918 kWh. Commercial and industrial facilities paid just over $194,000 for their 1,086,094 kWh of electricity. Figure E2 shows the electricity consumption by Jamaica Residential and Commercial / Industrial sectors.

[1] Data source: Vermont State Energy Profile, Energy Information Administration (EIA).

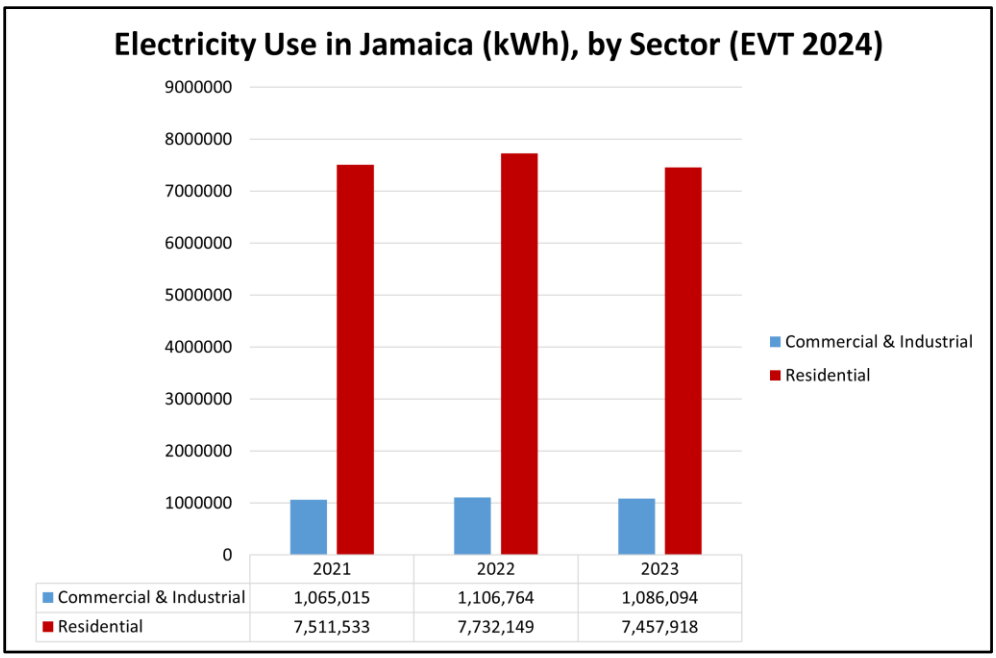


Figure E2
Electricity Use in Jamaica by Sector (2021 – 2023)

Current Transportation Use

The Public Service Department's (PSD) 2023 Municipal Consumption Tool was used to generate estimates for transportation sector energy use in Jamaica. According to the 2023 U.S. American Community Survey (ACS), Jamaica has 428 primary-owner or renter-occupied housing units (not vacant or used for seasonal / recreational purposes). Based on the number of households, it can be estimated that there are 769 light-duty vehicles (LDV) on Jamaica's roads, which consume 421,464 gallons of fossil fuel and 54,780 MMBtu each year. Below is a table summarizing the averages, estimates, and assumptions used to arrive at those figures.

To estimate the cost of this consumed energy, we assumed a cost of $2.94 per gallon (Vermont state average in 2021). In Jamaica, consumers spent over $1,361,655 on transportation related fuel costs alone.

28	Number of primary housing units.
769	Number of fossil-fuel burning light-duty vehicles (LDV).
13,250	Estimate of the average annual number of vehicle miles travelled (VMT) by an LDV in the area (The statewide average annual VMT for LDVs is 12,500. The vast majority of LDV in Vermont can safely be assumed to drive between 9,000 and 15,000 miles annually. LDVs in Jamaica are estimated to travel slightly further than the state average due to the rural nature of the region and presumed longer commute times.)
22	Estimate of the average fuel economy of fossil-fuel burning LDV fleet in the area, in miles per gallon (statewide average fuel economy).
463,148	Estimated number of gallons of fossil fuel consumed annually, calculated from the values above.

121,259	Number of BTUs in a gallon of fossil fuel, computed as a weighted average of the individual heat contents of gasoline (95%) and diesel (5%).
54,780	This is the estimated total annual energy consumption of internal combustion vehicles in the area, in millions of BTU.

Table E2
Summary of Jamaica's Transportation Energy Use

Current Heating Demand

To account for the different building types and their respective uses, the following estimates divide thermal energy demand into residential and commercial categories (industrial building thermal demand is not included in the following analysis). As with the transportation sector, the Municipal Consumption Tool was used to arrive at heating consumption estimates and organize assumptions about key data inputs. With 428 primary housing units, 21 commercial buildings, and 658 seasonal/vacation homes in Jamaica, the state average usage yields an estimated 74,182 MMBtu annual total heat consumption.

For residential buildings, it was assumed that average annual heating load of area residences is 110 MM Btu for both space and water heating (Vermont state average as reported by PSD). There are 428 primary housing units in Jamaica, but according to the 2023 ACS, 20 of these are heated by electrical heating systems. Electricity used for heating is accounted for in Efficiency Vermont's data on electrical consumption (see "Current Electricity Demand" section above). To avoid double counting this category of consumption, the 20 electrically-heated households in Jamaica are subtracted from the total, as well as thermal sector cost estimates. With 408 primary housing units remaining after this discount, the annual thermal energy use for town residences can be determined to be 44,880 MMBtu.

ACS data also provides information on the home heating fuels used for both owner-occupied and renter-occupied housing units (both are considered "occupied"). Separating out this analysis by housing-tenure can help the town identify discrepancies in how these populations meet their heating needs and experience thermal energy burden. Figures E3 and E4 below shows the percentage of fuel use by fuel type and housing tenure.

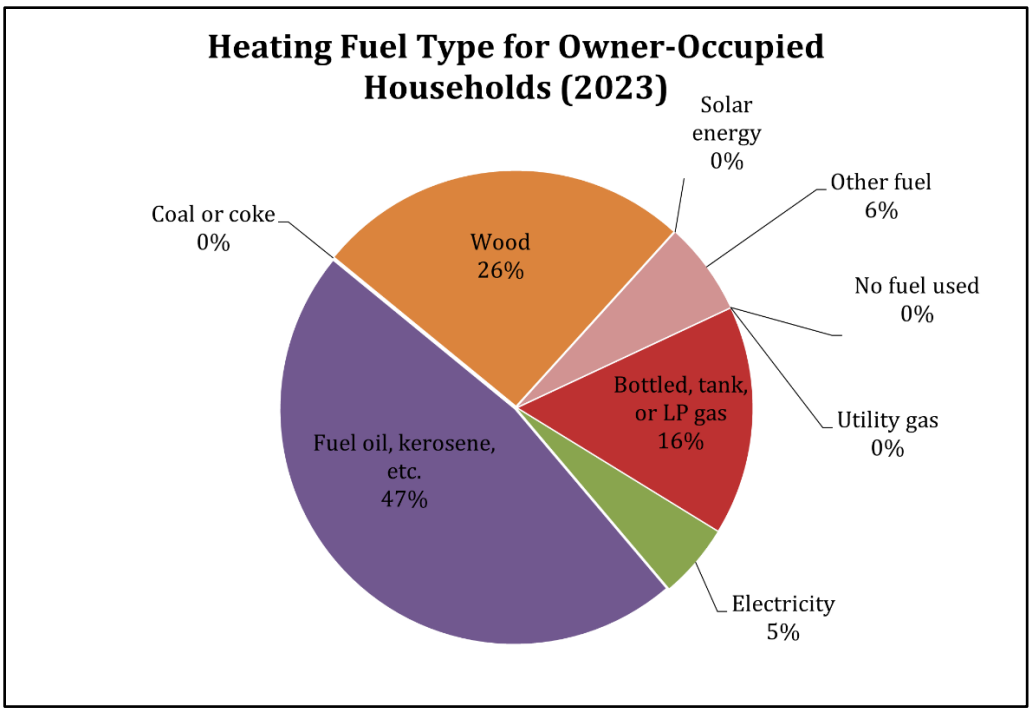


Figure E3
Use of home heating fuel for Jamaica homeowners by type (2023)

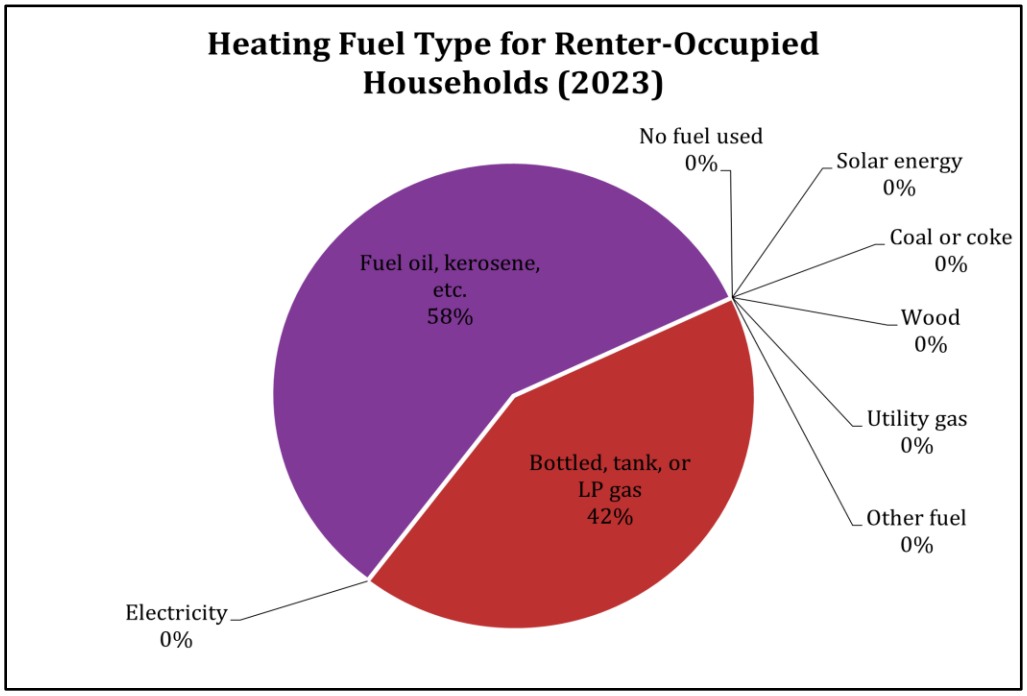


Figure E4
Use of home heating fuel for Jamaica renters by type (2023)

For residential buildings, an estimated total of just over $1,001,301 was spent in home heating (roughly $908,000 from home owners and $92,000 from renters). In Jamaica, 39% of housing units are

primary/"occupied" homes, while 61% are seasonal/"vacant" homes. Based on the energy model projections from the state (created by the LEAP, or Low Emissions Analysis Platform), it can be assumed that seasonal homes only use about 15% of the energy of a primary home, due to more occasional use and a presumed higher energy efficiency. However, this assumption does not necessarily fit the Town of Jamaica, where many seasonal homeowners use their properties during winter months and for longer periods of time. To account for this dynamic, seasonal annual heating load is estimated to represent 25% of the energy use of year-round residences. As such, seasonal homes in town are estimated to consume about 18,095 MMBtu annually (compared to the 44,880 MMBtu for primary residences).

For commercial establishments, it is estimated that the total heating load is 534 MMBtu each year. For the state, the average is in the range of 700 MMBtu to 750 MMBtu per year, but the average for any given area is very likely to be significantly higher or lower, as the mix of businesses from region to region is highly variable. Based on the types of commercial buildings in Jamaica, the heating load was calculated to be less than state average. With 21 commercial establishments, there is an estimated thermal energy demand of 11,207 MMBtu. There is no regional or statewide dataset that provides information on commercial floorspace or the heating fuel types of area businesses. For this reason, deriving a cost estimate for thermal commercial energy use is unrealistic given current data limitations.

Total Energy Costs

In sum, Jamaica pays a staggering amount in energy across the three use sectors. The total estimated cost to the town's residents for electricity, heating, and transportation is roughly $3.89 million dollars each year. However, since commercial and industrial thermal energy is unable to be accounted for in this estimate, the amount, in reality, is likely even higher. There are real financial incentives for the Town to move toward energy efficiency, on behalf of both residents and business owners (see section 4 "Jamaica's Energy Targets and Conservation Challenges" of this plan for more detail about energy efficiency and conversion targets).

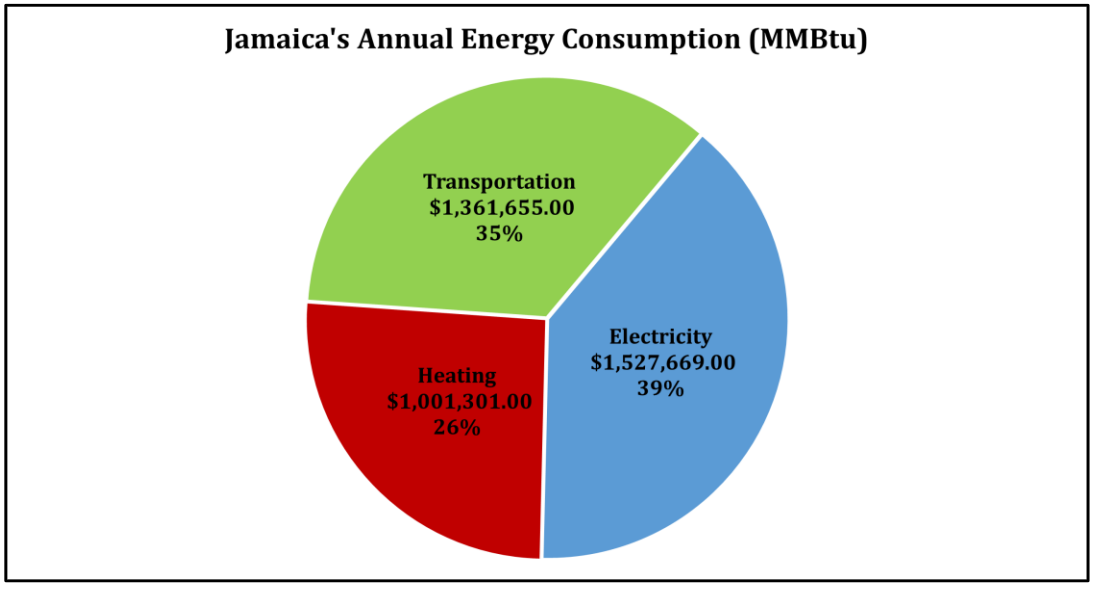


Figure E5
Jamaica's energy costs by energy category (2024)

Jamaica's Constraints & Potential for Energy Generation Resources

Jamaica is adopting an "all of the above" (all available and cost competitive renewable energy sources except large and small commercial wind generation) strategy in order to meet renewable energy generation goals. Energy resources within Jamaica are all renewable resources: wood, solar, micro-hydro, and residential wind. In order to reduce dependence on conventional energy sources, of which the costs and availability are outside residents' control (see the section above), the use and generation of appropriately-sited alternative energy sources is encouraged. A mix of PV solar, residential wind, and micro-hydro installations will provide a more robust renewable energy generation capability and expand the opportunity for property owners to participate in the new energy economy. Solar and Wind potential for Jamaica is shown in maps 1 and 2 of Appendix A. Existing energy transmission lines, 3 phase power distribution lines, and solar and hydro generation sites are shown in map 4. Additionally, Jamaica may share a unique resource with neighboring Townshend in the Ball Mountain and Townshend Dams that may someday be suitable for a hydroelectric pumped energy storage system if and when current structural deficiencies and serious sediment accumulation problems in the existing reservoirs of these federally-owned facilities are addressed and corrected.

Photovoltaic (PV) Solar Potential

PV Solar renewable energy trends support high potential for PV solar generation contributing substantially to meeting Jamaica's renewable energy generation goals. While State and regional plans are aspirational, it is considered that conversion to renewable energy sources will be driven by economic considerations. Jamaica residents most likely will act in what they perceive to be their economic self-interest, i.e. the opportunity to enjoy substantially lower energy costs for electricity, heating, and transportation needs. We anticipate that the falling price of renewable energy, including PV Solar, will align our residents' economic interests with meeting our renewable energy generation goals with substantial conversion to PV solar generation. Figure E6 below shows the declining prices of PV solar and wind renewable energy in comparison to that from coal and natural gas.

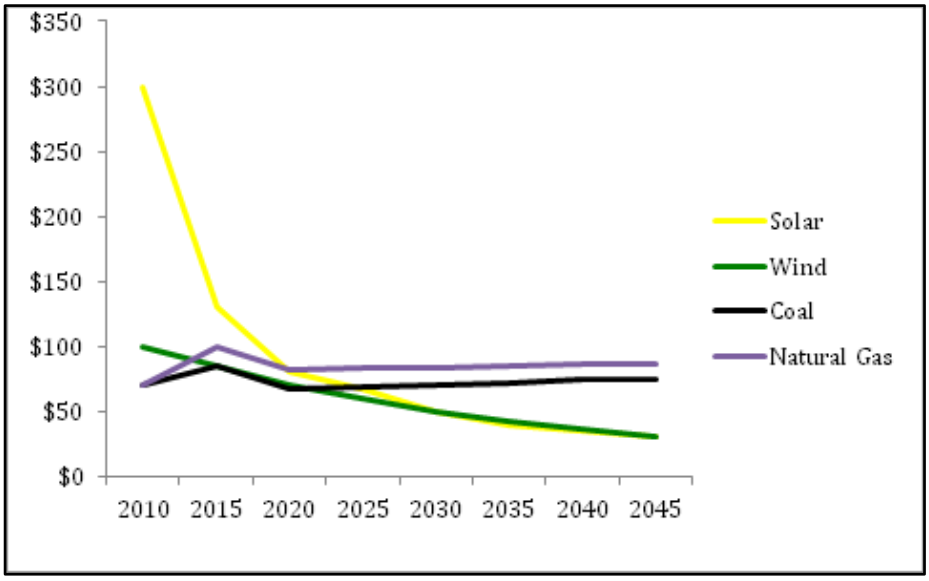


Figure E6
Cost/MWh by fuel type
Source: Bloomberg New Energy Finance as reprinted in April 2017 National Geographic

According to the U.S. Department of Energy, the approximate unit cost for large PV Solar generator projects is between $0.06 and $0.08 per kWh. The spread between current and anticipated future unit cost

from renewable sources will finance innovative business models. Homeowners will be offered a variety of energy loans or lease-based financial products with little or no capital requirements for installation of PV solar systems that will include unit cost well below current averages. Venture capital most likely will be readily available for financing consortium-based community PV solar generators.

Solar Panel efficiencies currently available are around 20%. However, there are a number of research efforts to improve solar cell efficiency. As of 2024, various solar cell efficiencies with efficiencies close to 40% have been demonstrated in laboratories.[2] The time and effort required to transition laboratory results to production solar panels cannot be predicted with certainty and expectation of near term availability is not reasonable. Nevertheless, in the 25 years until 2050, it is entirely reasonable to expect that these research efforts will result in major improvements in PV solar source efficiency. Efficiency improvements will increase power outputs, make marginal sites viable, and reduce required footprints for given output levels -- all of which will lower costs. It is likely that in retrospect, progress assigned in 2025 will seem very conservative by 2050.

Enabling Technologies

Major infrastructure improvements will be required to meet a national transition to renewable energy goals, including in Vermont. Generation of renewable energy is highly weather dependent; the sun must be shining or the wind blowing. And, weather patterns vary across the nation making excess energy available in one region at any given moment and scarcity in another. To make renewable energy uniformly available nationally, the nation's grid must be upgraded.[3] Efficient long haul transmission of electricity requires the conversion of lower voltage alternating current lines to high voltage direct current ones for long distance transmission. Existing alternating current transmission lines will have to be replaced with lines capable of carrying the high voltage current. Vermont's participation in this national infrastructure will be necessary to minimize the dependence on fossil fueled peaking generators during periods of reduced sunshine or wind.

Large scale penetration of the power grid by renewable energy sources is dependent on commercial availability of several enabling technologies.[4] The fluctuating nature of renewable energy sources makes maintaining grid power quality while accommodating large amounts of power generated by renewable sources very difficult. Large scale conversion to renewable energy generation, in the absence of devices and controls that support efficient utilization of energy from renewable sources, leaves homeowners converting to renewable energy generation being forced to operate in a virtual off-the-grid mode in which power in excess of that needed onsite will be wasted, i.e. shunt to ground (in the same way current from a lightning rod is channeled into the ground) rather than sold.

Occasionally, when energy stored in home batteries is exhausted, the home may draw power from the grid if not physically disconnected. Larger community generators may be forced to sell power to the wholesale market on a 'catch as catch can' opportunity basis. Returns from capital investment will be reduced below the level that full utilization of the generators could produce. While ideal for some remote locations, large scale realization of off-grid operation of renewable energy sources will be inefficient and create major difficulties for those homeowners that have not converted to renewable energy sources.[5] Those remaining customers will have to bear the cost of GMP's distribution system resulting in much higher rates.

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[2] University of Michigan Center for Sustainable Systems, "Solar PV Energy Factsheet," https://css.umich.edu/publications/factsheets/energy/solar-pv-energy-factsheet. Viewed on 12/23/2024

[3] Seitter,Kieth L; The Wicked Problem of Transitioning to. Renewable Energy; American Scientist, November-December 2024

[4] Molina, Marcelo G. "Energy Storage and Power Electronics Technologies: A Strong Combination to Empower the Transformation to the Smart Grid." *Proceedings of the IEEE*105, no. 11 (2017): 2191- 2219.

[5] Vermont Department of Public Service, 2016 Comprehensive Energy Plan (2016 CEP), Ch. 7, p. 112

For these reasons, technologies necessary to effectively integrate renewable energy generation on a scale envisioned by this plan must be broadly available. These technologies are energy storage, solid-state power electronics, smart grid architecture, and smart grid control, including control algorithms and their distributed high performance computing based implementation. They are in various stages of research and development with uncertain maturity dates. Their commercial availability will pace the achievable rate of conversion to renewable energy. As these technologies mature, the most salient measure of their adoption and integration into the power grid will be the relaxation of the net-metering limitations from its current 15% to 100%, i.e., every watt of renewable energy generated will be used.

The falling cost of renewable energy (see figure E6) and the expansion of the market for renewable energy products that relaxation of current net-metering will lead to the development of business models that make conversion to renewable energy affordable for the average homeowner. The cost spread between fossil-based and renewable energy will stimulate financing plans that allow incorporation of up-front capital costs into prevailing unit cost that still offer cost savings to energy consumers. Early adopters with capital to invest in future energy savings will realize excellent return on their investment in the form of low energy costs. All of this will be paced by the availability of the enabling technology required to support full utilization of renewable energy.

Energy Storage

Energy storage is considered fundamental to integrating PV solar and residential wind energy generation into the power grid. Indeed, expert opinion considers that a self-sufficient system cannot be achieved without suitable energy storage.[6] There are a number of technologies that provide energy storage; mechanical, electrical, electrochemical, chemical and thermal.[7] Energy storage technology will provide a number of essential services to future smart grid components. Those of relevance to a possible West River Valley-based micro-grid element of a regional or state smart grid are: (1) electrical storage devices for maintaining power levels and quality over short periods of time (seconds to minutes) and (2) electrochemical (battery) storage systems that provide peak shaving and longer term (hours to days) load leveling. Additionally, battery storage at the micro-grid level will allow separation of the times of energy generation and delivery to users. The ability of battery-based energy storage to absorb peaks of fluctuating power from renewable generators and deliver needed additional power during valleys of generation to maintain a constant power output is absolutely essential. Renewable energy generators with adequate energy storage and the right controls may emulate conventional synchronous generators, producing grid-quality power for a predictable amount of time.[8] In its absence, PV solar generators would have to operate in a virtual off-the-grid mode as described above.

Energy storage research includes both efforts to increase the charge-carrying capacity of chemical batteries and efforts to produce low-cost batteries for applications where size and weight are not constraints. The former is important for meeting energy storage needs where constrained by size, weight or available space. Historically, large scale deployment of batteries as energy storage systems has been too expensive, but prices are declining and expected to fall further. The latter research effort addresses this need.

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[6] Gómez-Expósito, Antonio, Angel Arcos-Vargas, José M. Maza-Ortega, José A. Rosendo-Macías, Gabriel Alvarez-Cordero, Susana Carillo-Aparicio, Juan González-Lara, Daniel Morales-Wagner, and Tomás González-García. "City-Friendly Smart Network Technologies and Infrastructures: The Spanish Experience." *Proceedings of the IEEE* 106, no. 4 (2018): 626-660.

[7] Molina, Marcelo G. "Energy Storage and Power Electronics Technologies: A Strong Combination to Empower the Transformation to the Smart Grid." *Proceedings of the IEEE*105, no. 11 (2017): 2191- 2219.

[8] Gómez-Expósito, Antonio, Angel Arcos-Vargas, José M. Maza-Ortega, José A. Rosendo-Macías, Gabriel Alvarez-Cordero, Susana Carillo-Aparicio, Juan González-Lara, Daniel Morales-Wagner, and Tomás González-García. "City-Friendly Smart Network Technologies and Infrastructures: The Spanish Experience." *Proceedings of the IEEE* 106, no. 4 (2018): 626-660.

Large battery farm energy storage is an emerging technology alternative to micro-grid energy storage. Arrays of large batteries providing multi-megawatt storage capacity may provide the energy storage required to compliment the state's renewable energy generation goal of 90% renewable energy generation by 2050. The use of a relatively fewer large battery farms in place of many more micro-grids would significantly simplify grid control requirements. Additionally, battery farms are not as location sensitive as renewable energy generation assets allowing much greater flexibility in their placement. A demonstration 5MW battery array energy storage project conducted by Green Mountain Power and the U.S. Department of Energy was brought on line in September of 2024.[9] This project will provide the immediate benefit of capturing and saving for later use the excess power generated by the Kingdom Community Wind Project that would otherwise be discarded. Over the project's performance period, it will establish the difference in the cost and resale price of stored energy that will determine its commercial viability. In the longer term, it may prove to be Vermont's most cost effective enabling technology for full transition to renewable energy.

A batteries-only conversion to the renewable energy grid may prove beneficial to those property owners for whom none of the renewable energy generation systems are appropriate. With sufficient battery capacity, homeowners may separate time of delivery of electricity from time of its generation. This will maximize the efficiency of local distribution of renewable energy within a micro-grid. It will also minimize the need for supplemental electricity from outside local micro-grids. Arrays of batteries, either closely coupled with community solar arrays or as stand-alone arrays, will play a similar role for an entire micro-grid. Power excess from distributed generators may be saved and redistributed locally as needed. Local excess reserves may be made available more predictably to the larger grid and deficits more predictably provided for.

Pumped hydroelectric storage systems are responsible for the bulk of the world's energy storage.[10] These normally are massive systems consisting of two reservoirs separated in elevation and a pump/generator at the lower reservoir. Water is pumped up to the upper reservoir with electrical energy to be saved as kinetic energy and released to flow to the generator at the lower reservoir to be recovered as electrical energy. Costing hundreds of millions of dollars to build, they are used to store GWh of energy for large energy providers. While not feasible now because of dam limitations, serious sediment accumulation problems within the existing reservoirs, and shoreline erosion concerns, Jamaica is investigating the possibility of a more modest pumped hydro energy storage system utilizing the Ball Mountain and Townshend dams if dam and environment concerns are addressed. If these problems are mitigated, such a system could provide bulk energy storage for a potential future West River Valley-based micro grid.

Smart Grid

By 2050, the 2022 CEP envisions a radical reorganization of the power grid into what has become known as the smart grid. In concept, the smart grid is an inter-connected network of micro-grids. Micro-grids are smaller connections of power generators, energy storage, and power users. Generators may be both residential and community-based PV solar and residential wind generators and energy storage may be both "behind the meter" and at the community generator level. Micro grids will be controlled as a single entity, a single unified producer and consumer of electrical power, and capable of operating as an externally controlled element of the larger smart grid or in a stand-alone, "island" mode.

[9] Sandia Celebrates Successful Battery Installation with Vermont Electric Cooperative/Green Mountain Power; DOE Department of Electricity Energy Storage Programs; September 10, 2024; https://www.sandia.gov/ess/2024/09/10/sandia-celebrates-successful-battery-installation-with-vermont-electric-cooperative-green-mountain-power

[10] Molina, Marcelo G. "Energy Storage and Power Electronics Technologies: A Strong Combination to Empower the Transformation to the Smart Grid." *Proceedings of the IEEE*105, no. 11 (2017): 2191- 2219.

The smart grid will network micro grids, providing exchange of power among them and providing power to them on those occasions when local sources are inadequate, e.g. during prolonged periods of overcast skies and calm winds when renewable energy generation is inadequate. A certain amount of conventional power generation will be at the smart grid's disposal for this purpose, but its use will be limited and — more importantly — predictable, well in advance of need. Consuming power locally where generated and better controlled transfer of power directly from centralized generators to micro-grids will avoid transmission losses the grid currently experiences, saving 5% of current electrical energy generated.[11]

Power Electronics

Power electronics are those solid-state devices found in inverters and transformers needed to transform the output of renewable energy generators to 60 cycle AC power that homeowners and business users consume. Other power electronics are used in the grid to transform power between AC and DC currents and between different voltage levels for long haul transmission. An emerging form of power electronics is the Flexible AC Transmission System (FACTS). The components in FACTS are to be used in the smart grid to support active control of power transfer, both within and among the smart grid's micro-grids. Local consumption of power flowing in and out of micro-grids will require external control of these devices by the larger smart grid control system.

Smart Grid Control

The fundamental building block of the smart grid will be smart meters that report in real time the state of all connected micro-grid elements to the micro-grid controller. Intra micro-grid control is exercised based on the aggregate of smart meter reports. Micro-grid states, computed from smart meter reports, are reported to the smart grid controller to exercise control of the overall grid. Control of the smart grid is envisioned to be implemented on a distributed computing network of high performance computers, e.g., distributed cloud computing. Control algorithms for implementing the above hierarchical control of the smart grid, the supporting hardware, and software computing architecture are currently in the conceptual stage of research and development efforts.[12]

Solar Constraints

The above discussion of enabling PV Solar technology is to make the point that the pace at which the technology necessary to integrate renewable energy generation into the power grid will constrain the rate at which Jamaica, and the rest of the state, can adopt it. We expect that as the enabling technology is realized as products, business models that make it attractive to consumers will quickly follow. As Jamaica residents and vacation home owners become aware of PV solar systems available to them at energy cost savings, we expect them to act to take advantage of energy costs savings and expeditious conversion to renewable generation including PV solar energy will follow. Accordingly, it follows that a major part of Jamaica's path forward will be to maintain awareness of the state of PV solar enabling technologies and supporting business models so that our residents and vacation homeowners may be made aware of their availability at the earliest opportunity.

Wind Potential

Map 2, Jamaica Wind Energy Potential, show wind energy areas with known and possible constraints and areas suitable for large and small commercial wind and residential wind generation respectively.[13]

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[11] "How Much Electricity Is Lost in Transmission and Distribution in the United States January 29, 2018. Accessed June 06, 2018. https://www.eia.gov/.

[12] Gómez-Expósito, Antonio, Angel Arcos-Vargas, José M. Maza-Ortega, José A. Rosendo-Macías, Gabriel Alvarez-Cordero, Susana Carillo-Aparicio, Juan González-Lara, Daniel Morales-Wagner, and Tomás González-García. "City-Friendly Smart Network Technologies and Infrastructures: The Spanish Experience." *Proceedings of the IEEE* 106, no. 4 (2018): 636.

[13] As used in this plan, "residential wind generator" is defined as any on-site wind driven electric generator for local

Jamaica will encourage a mix of renewable energy generation sources, including residential wind in areas specified by the Wind Energy Potential Map a of the Mapping Appendix of this plan that are not constrained by Act 250 considerations or provisions of our town plan. Map 3 shows some of these constraints from the Future Land Use Map overlaid on the different areas of the Wind Potential Map.

The WRC identifies 984 acres available for residential wind energy generation. Therefore, there is substantial potential for effective utilization of residential wind for renewable energy generation. It is considered that residential wind installations would be beneficial supplements to PV solar generation, and particularly useful in areas where PV solar may be impractical. The cost of wind-based renewable energy closely tracks that of PV solar and will offer the same cost savings opportunities as PV solar. Since wind velocities fluctuate independently from sunlight, the overlap of wind and PV solar energy offers a more robust renewable energy generation capability than either can provide alone. The above discussion of enabling technologies applies equally to residential wind renewable energy utilization as well.

Wind Constraints

To be effective from a wind resource perspective, commercial wind generators must be located on ridgelines (see Map 2).[14] Jamaica's Town Plan prohibits ridgeline development. Therefore, Jamaica does not consider commercial wind to be an acceptable source of renewable energy as its introduction in potential wind energy regions of the town is inconsistent with other elements of our Town Plan and detrimental to the town's economic interests, which depend on maintaining its rural and scenic qualities, as described below under "Environmental Concerns" and "Economic Concerns. This plan explicitly prohibits commercial wind development in Jamaica, but this prohibition does not interfere with the town's ability to meet its renewable energy priorities.

Ridge Line Protection

It is a long-standing policy of Jamaica to protect the ridge lines of surrounding mountains from commercial and residential development.[15] The Town's natural beauty, particularly its forested ridge lines, is the main attraction for our full-time residents, vacation home owners, and the many visitors we enjoy. Jamaica is home to the State's most popular State Park. The views of surrounding ridge lines are one of the major attractions enjoyed by visitors to this park.

Jamaica's Town Plan prohibits ridge line development. Specific ridge lines upon which development is prohibited include, but are not limited to the Pinnacle, Sage Hill, and Mundal Hill. Ridge lines associated with these mountains are viewsheds shared both by Jamaica and the neighboring Stratton resort area. Ridge lines of Cottage Hill, Ball Mountain, South Hill, and Attridge Mountain surrounding Jamaica State Park are viewsheds included in Jamaica's ridge lines as viewsheds enjoyed by visitors to Jamaica State Park. The Vermont Land Trust holds a conservation easement on most of the privately owned Shatterack Mountain ridge line which might be negatively impacted by ridgeline commercial wind development. The Nature Conservancy owns most of the Turkey Mountain ridge line in Jamaica with commercial wind potential. Any commercial wind development on this portion of the Turkey Mountain ridge line might affect this conserved land. Turkey Mountain and South Hill ridge lines are important viewsheds for

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use that is of no more than 500 kW capacity, operates either off-grid or, through net metering, in parallel with facilities of the electric distribution system, is intended primarily to offset the owner's own electricity requirements, is located on the owners premises, or, for group net- metered systems, on the premises of a member of the group, and is mounted on a mast or tower structure of no more than 120 feet in total height (height of mounting structure plus radius of airfoil arc).

[14] As used in this plan, "commercial wind generator" is defined as any wind driven electric generator that does not fall within this plan's definition of "residential wind generator". Commercial wind generators are explicitly prohibited in all locations within Jamaica under provisions of this plan.

[15] "Vermont Highest Priority Interior Forest Blocks," Geodata.vermont.gov., accessed June 05, 2018, http://geodata.vermont.gov/datasets/b05737376a3f4553a025967aba4cac6a_183

travelers along Route 30 during fall foliage season. Map 3 of Appendix A shows the juxtaposition of ridgeline areas with wind resources suitable for commercial wind development with conserved land and scenic areas and ridgelines specified by our town plan. For these and other reasons, commercial wind is excluded from our plan to meet renewable energy conversion goals.

Environmental Concerns

Areas identified as secondary wind energy resources either lie within or adjacent to conservation areas as discussed elsewhere in the Town Plan. Per the State's Town of Jamaica Wind Resource Map, all the named peaks and associated ridge lines, except South Hill, lie in Vermont Conservation Design Highest Priority Forest Blocks. Additional information on Highest Priority Forest Blocks is included in the Natural Resources chapter. Deer wintering areas are located on the sides of Turkey Mountain and South Hill ridgelines. Location of large and small commercial wind towers in these areas has a potential to cause severe environmental damage to these areas, interrupt wildlife habits, and in some cases, cause runoff damage to local brooks and streams and the West River. Map 3 of Appendix A shows the juxtaposition of conserved and proposed conservation and scenic hills or ridgeline areas with areas shown on the state potential wind resource maps as suitable for large and small commercial wind development.

The entire town of Jamaica lies within the West River Watershed and is included in the Vermont Department of Environmental Conservation (VDEC) Basin 11 Strategic Plan. Due to the challenges of balancing recreational, commercial and industrial uses of the West River and its tributaries, the Basin 11 Strategic Plan was developed to identify priority actions to improve water quality, and protect natural communities and the rare, threatened and endangered species concentrated along the surface water areas. The plan specifically identifies the need to work with the Town of Jamaica to address sediment and temperature impairments to the local waterways.

The focus of the Plan included an attention to building with flood resiliency in mind. For the Town of Jamaica, actions include the implementation of sediment and storm water restoration and storm water control actions to reduce flow, sedimentation, and promote the regrowth of riparian vegetation.

The ridge lines listed above are a direct source of runoff to tributaries or smaller brooks that empty into the West River and are governed by the VDEC Basin 11 Strategic Plan. Many of these areas include steeply graded and severe terrain that increases the amount and velocity of storm water runoff to lower elevations. The earthwork process of tree clearing and grading to construct access roads and the wind turbine sites are actions that may add to the amount of storm water runoff, increase soil exposure areas, erosion, and direct sunlight, in conflict with the goals of the Basin 11 Plan. Runoff from commercial wind turbine sites, if located on Jamaica's ridge lines, has the potential to cause contamination in the West River, ponds, and wetlands included in the Jamaica Watershed.

Economic Concerns

A large part of Jamaica's economy is centered on tourism or providing goods and services to vacation homeowners. The natural beauty of the Town's forests and mountains are a major draw for both. Vacation homeowners are both summer residents and winter residents who take advantage of the nearby ski resorts. Vacation homes constitute the major portion of the town's grand list. Any commercial wind installations degrading the natural beauty of the area has a high potential to adversely affect property values, increase the tax burden of full time residents, and reduce the considerable contribution of Jamaica tax revenue to the State's Education Fund. The western ridge lines of the Pinnacles, Sage Hill, or Mundal Hill are in the primary foreground of Stratton's easterly view. Commercial wind development on any of Jamaica's ridgelines described in the above text would negatively affect the town of Stratton's easterly viewshed. Jamaica is undertaking economic development efforts, infrastructure improvements, and outreach efforts to attract new businesses and residents. The area's natural beauty is the primary advantage we offer to potential new residents.

Necessity

Commercial wind energy generation is not necessary to meet Jamaica's renewable energy goals. The mix of PV solar, residential wind, and micro-hydro will be sufficient. If, as expected, the next 25 years see substantial improvement in PV solar efficiency and battery storage capacity, the goals established by WRC's analysis plan will prove to be conservative and easily exceeded with PV solar energy alone.

Hydro Potential

The presence of two perennial fast-flowing waterways, the West River and Ball Mountain Brook, presents a significant opportunity for harnessing renewable energy. Based on Efficiency Vermont 2023 figures for residential electricity use in the Town of Jamaica, 1,068 residences utilize 6,867 kWh per residence/year. Assuming 85% efficiency, a single 100kW micro-hydro turbine could generate electricity for 120 homes. The Federal Energy Regulatory Commission (FERC), has licensed run-of-the-river hydro generators on the West River just upstream of Jamaica at the Ball Mountain and downstream at Townsend Dam.

Micro-hydro (<100kW and >10kW) is an option for hydro power on the West River, Ball Mountain Brook, and potentially in perennial waterways on individual parcels. Well-designed low impact hydropower technology is the most aesthetically and environmentally-conforming of the renewable energy types to the Town Plan's "low impact development strategy. While water-flow dependent, it can provide continuous power output, independent of time of day or wind conditions, and can be connected to the power grid for net metering. Adequate flow for new low impact river-run turbines will be determined during development of small and micro hydroelectric projects." In 2015, the State of Vermont Department of Public Service (DPS) Agency of Natural Resources and Agency of Commerce and Community Development established the Vermont Small Hydropower Assistance Program (VSHAP) in order to facilitate permitting of hydroelectric power and incentivize hydropower installations. To identify and assist low-impact projects they jointly conduct a desktop review of project proposal characteristics; if that screening is successful, they then conduct a project proposal review based on a site visit, as appropriate. The agencies will then provide enhanced assistance to projects that screen as low impact (for instance, waiving scoping periods in the FERC process and/or representing to FERC that agency concerns have been satisfied).

Upfront costs for micro-hydropower are considerably lower than for solar or wind, given the smaller scale, and levelized costs are the lowest of the three renewable technologies. Current technological advances meet the demand for low impact 'run-of-the-river' turbines that are 'fish friendly' and report up to 90% efficiency. Companies such as Voith Hydro and General Electric have innovative technology that has proven to meet stringent environmental regulations. Another consideration which would help alleviate or avoid otherwise applicable environmental concerns would be the placement of hydro technology in existing infrastructure such as a storm sewer outlet or in connection to existing bridge footings.

Hydro Constraints

Permitting and rate-of-return on investment for micro-hydropower presents the greatest challenge to installation. The State of Vermont has tried to facilitate permitting; however, there is no financial incentive offered at the present time as of spring 2025. While technology allows for hydropower to be installed in the "river run", greater energy returns are achieved where hydropower is installed at a dam or weir with, "head height," or waterfall. However, new dams or weirs that obstruct or alter stream flow regimes are effectively prohibited under existing state water quality laws. Run-of-the-river hydro generators can potentially be permitted. The West River and Ball Mountain Brook do not have dams or weirs below the Ball Mountain Dam. Levelized costs, i.e., lifetime costs including initial startup costs, of the infrastructure and maintenance of hydropower technology are lower than solar or wind.

Potential Heating Energy Conservation and Constraints

Wood Heating

The fact that Jamaica's forests are able to supply significant quantities of cordwood for local cordwood businesses, plus the ready availability of wood pellets, heightens the potential for increasing the number of homeowners who heat with wood. The lower cost of heating BTUs from wood relative to fuel oil is an added incentive for wood heating. To the extent that Jamaica residents cut their own firewood, the cost of wood heating is further reduced. Further, Jamaica's extensive forest lands act as an important CO2 sink.

However, there is an important caveat to encouraging a further increase in the use of wood for home heating. Burning wood is half of a CO2 cycle. To be a recyclable source of energy, growing new trees must reabsorb the CO2 released from burning wood. Burning wood releases nearly as much CO2 per BTU as heating oil. Growing a tree to replace a tree consumed will reabsorb the CO2 released, but it will take the tree's lifetime. The CO2 load in the atmosphere will build up until a sufficient number of replacement trees establish equilibrium. Figure E7 illustrates the effect for three scenarios.

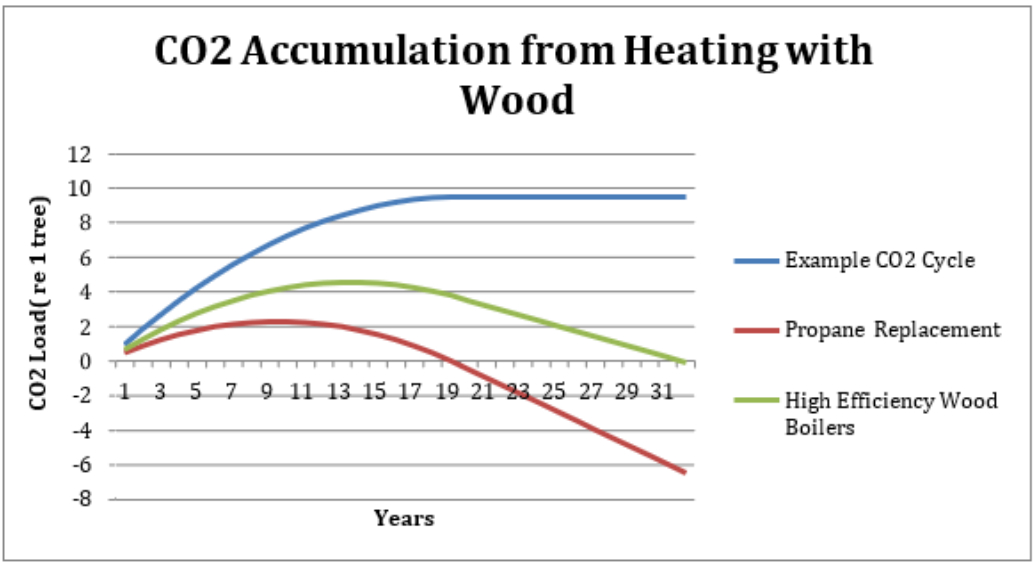

Figure E7

CO2 atmospheric load buildup and dissipation for three wood heating conversion scenarios

The blue curve illustrates a representative CO2 cycle for a wood burning stove. Heating with a conventional wood stove (blue curve) and tree-for-tree replacement of trees burned will cause a buildup of CO2 until sufficient replacement trees have been planted to absorb the CO2 released by each tree consumed. In this example, a 20-year life cycle is assumed; i.e., each replacement tree absorbs 5% of the CO2 released per year. Accumulated replacement trees therefore absorb the CO2 released by burning a single tree. Equilibrium, i.e., the condition in which the CO2 released by each tree burned is absorbed by 20 growing trees, is reached after 20 years. Twenty trees, each absorbing 5% of the CO2 released by burning a single tree have been accumulated and thereafter harvested at the rate consumed.

The CO2 cycle in Jamaica's mature forest is more complex. CO2 release varies by tree species and absorption rates vary by species and tree age. Further, a tree must reach a certain size before significant absorption can occur. Therefore, the CO2 cycle in Jamaica's mature forest does not occur in isolation as illustrated above but rather in the context of a forest that is already absorbing CO2 at its maximum capacity. Adding a new fossil fuel (including wood) heating system will only generate CO2 beyond its capacity to absorb unless new trees are introduced to the forest to absorb the new CO2 generated. If the

fuel is wood harvested from the Jamaica forest, then two trees must replace each tree burned; one to maintain the existing equilibrium and one to offset the CO2 released by the new system. If the fuel is oil, new trees must be introduced at the rate of the blue curve example to offset the new source of CO2. In both cases, CO2 will increase to a new equilibrium point as shown in the blue curve.

The red curve illustrates the effect on contribution to the CO2 level of replacing propane or natural gas heating with conventional wood heating accompanied with tree replacement. Replacing each tree harvested plus a second tree for the number of BTUs burning a tree releases, i.e., the replacement rate for a conventional wool heating system, will cause an initial buildup of CO2 followed by a decrease in CO2 as illustrated by the red curve. In Jamaica forest's saturated CO2 sink, any reduction in local CO2 load from a conversion in Jamaica will quickly be filled from excess CO2 in the atmosphere. But Jamaica's contribution will be reduced.

Replacing conventional wood heating systems with high-efficiency wood boilers or pellet stoves has the effect of reducing the CO2 load by approximately one third, 60% / 90% efficiency ratio in heat use. If tree-for-tree replacement were already in effect for the replaced conventional system, the replacement will cause more CO2 to be absorbed than generated as shown by the green curve. As with the propane example, any unused capacity of Jamaica's forest to absorb CO2 will quickly be used by excess in the atmosphere, but Jamaica's contribution will be reduced. If the pellet or high-efficiency wood boiler system is new, then trees harvested from Jamaica's forest must be replaced at the rate consumed and new trees must be added, but at a rate that is two thirds of that required by a conventional wood heating system.

The foregoing discussion is to illustrate that to be effective in addressing the fundamental objective of the State's 2022 CEP, i.e., reducing the greenhouse gas loads from energy generation, use of wood for heating energy must be accompanied by responsible forest management. Firewood must be harvested at a sustainable rate and in a manner that assures replacement trees grow at a rate not less than one-for-one replacement for existing systems and greater for new systems. Jamaica is largely covered in forest and Jamaica has a long-standing policy of encouraging responsible forest management practices, as provided for in the Natural Resources chapter of the 2025 Town Plan. While this policy has been motivated by esthetic and economic reasons in the past, promoting increases in the use of wood for heating energy must be accompanied by re-emphasis of good forest management to ensure Jamaica remains a CO2 sink for itself and perhaps other less-wooded towns.

A major constraint to conversion of current residential heating systems to high-efficiency wood heating is cost. High-efficiency wood stoves and wood gasification wood boilers are expensive. Initial costs may be offset through the Department of Public Services Micro Renewable Energy Incentive program (SSREI) rebate offers for advanced wood pellet, chip boilers, and solar heating systems. The department also offers low-interest loans through the Heat Saver Loan program to offset up-front costs for energy upgrades that may be used to finance conversion to wood heating. Cost savings of wood pellets and cordwood relative to fuel oil, propane, and electricity heat will allow homeowners to recover conversion costs. Jamaica will ensure that citizens are informed of available financial assistance for conversion to high efficiency wood heating.

<u>Rotational Grazing</u>

The practice of rotational grazing offers Jamaica's niche cattle operators the opportunity to contribute to reducing our carbon footprint. Rotational grazing is the practice of subdividing pastures used to graze cattle into subsections and constraining the cattle to graze one subsection at a time sequencing through the subsections.[16] The cattle will work their manure into the ground while grazing and by leaving each

[16] Rotational Grazing for Climate Resilience; Climate Hubs, US Department of Agriculture;

subsection idle for the maximum amount of time, the manure will have the maximum fertilizing effect. The quality of the grass will be improved and, importantly from a carbon loading point, the grass roots will grow deeper. Over time, rotational grazing will cause grass roots to grow very deep, as much as 8 feet, making the grass very effective carbon dioxide absorbers. Properly grazed fields will reverse the balance of the global warming impact that bovine-produced methane causes by enhanced carbon dioxide absorption. It can also make open fields as effective as forested lands in absorbing carbon. It costs little and can supplement good forestry practices in Jamaica's contribution to minimizing Vermont's carbon footprint.

Heat Pumps

Heat pumps offer an efficient alternative to electric, propane and oil heating. This is because heat pumps move heat (calories) rather than create them through burning or passing electric current through electrical resistance. In a manner analogous to electrical transformers, heat pumps extract calories from a large volume of outdoor air at low temperatures and release them to a lower volume of air at a higher temperature indoors. Given their efficiency relative to fossil fuel heating, they offer homeowners significant cost savings. They lose their effectiveness at sub-zero temperatures, so on Vermont's coldest days they must be supplemented with a second heating source. Ground-based heat pumps that extract calories from the ground to heat indoor air can deliver 100% of a building heat even on the coldest days. Because of excavation costs, they are costlier than air source heat pumps.

Depending on the source of electricity to operate them, the CO2 load on the atmosphere varies. Because of their improved efficiency, CO2 loads are reduced even if powered by electricity distributed from fossil-fueled generators. With the conversion to renewable power, their use will create no CO2 impact.

Financing conversion to heat pumps may be eased through rebates and income-based low-interest loans available through Efficiency Vermont. Businesses may finance conversion to heat pumps through business energy loans also available through Efficiency Vermont.

Other Alternative Heating

Geothermal heating and solar hot water heating systems are alternative heating sources to replace or augment non-renewable heating. They may require augmentation from a second source. While the energy element of the Windham Regional Plan does not assign a target for savings from these alternative heating systems, they may offer an attractive alternative renewable heating option. The SSREI and Heat Saver Loan programs may help finance conversion to these alternative heating options.

Potential Transportation Energy Saving and Constraints

Based on the 2023 American Community Survey, the average daily commute time for Jamaica residents is 29.3 minutes. Energy use for all transportation in Jamaica is 54,780 MMBtu. Meeting these needs with electric vehicles, provided they are charged with electricity from renewable sources, or with reusable fuel, has the potential of significantly reducing greenhouse gas loads of the atmosphere. While Jamaica adopts the WRC targets as Jamaica's goals for transportation energy saving, the pace at which these goals can be met is dependent on factors beyond the Town's control. These include the pace at which enabling technology is brought to market, the availability of suitable vehicles at affordable prices, and the development of infrastructure needed to support vehicles using alternative fuel or power.

Because of the multi-use automotive needs of Jamaica residents, winter driving conditions, and the preponderance of Class 2 and Class 3 dirt roads with difficult driving conditions in mud season, residents require all-wheel drive or four-wheel drive vehicles or light trucks. Additionally, many local businesses

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https://www.climatehubs.usda.gov/hubs/international/topic/rotational-grazing-climate-resilience

require vans and trucks. It is not known when electric or alternative fuel versions of these vehicles will be available for purchase. An additional lag will occur until they are available as more affordable used vehicles.

Battery Technology

The current state of battery technology limits the range of electric vehicles to approximately 200 miles, the mean weekly commuting distance of Jamaica workers. This range is for a relatively light car. A much lower range would be possible for the larger all-wheel or four-wheel drive cars and light duty trucks appropriate for Jamaica's roads. A number of research and development efforts are underway to increase the charge-carrying capacity of batteries that will increase electric car range and make their use in heavier car models practical.

The lack of adequate EV recharging infrastructure is proving to be a national impediment to adoption of EV vehicles. This is particularly true in rural Vermont. Current battery charging times are lengthy and battery charging infrastructure is limited for the most part to home recharging. Limited public electric vehicle recharging is available in the region, most commonly found in larger population and commercial centers, such as Brattleboro and Manchester, and at ski resorts. This is satisfactory for commuting purposes, but not for longer trips. With the state's most popular state park, a village recharging facility is needed to encourage EV travel to our town. A virtuous cycle between infrastructure development and electric car use is anticipated. More electric cars will stimulate more infrastructure development, which will support more electric car buying. In other more densely populated parts of the state, increases in the grid's current carrying capacity will be required to support transition to large scale adoption of EV vehicles.

Renewable Energy

Electric vehicles, because of their energy recovery systems, are slightly more efficient than internal combustion vehicles. Their real impact on reducing CO2 will come when they are recharged from renewable energy sources. Drawing transportation energy from significantly cheaper renewable energy will offer a major reduction in operating costs and provide an incentive to buy electric vehicles. The rate at which the grid converts to renewable sources will therefore pace transition to electric vehicles.

Alternative Automotive Technologies

Although electric vehicles are the most advanced of renewable or recyclable energy automotive technologies now, other approaches are in various stages of research and development. The automotive technologies of 2050 are far from settled. These include alternative fuels such as biodiesel, hydrogen, and even ammonia, hydrogen fuel cells, and hybrid electric / alternative fuel cell vehicles. The latter would address the long haul problem of all electric vehicles. These technologies are not mature and their commercial availability is uncertain.

Remote Work

Residents that are able to work remotely from home either full-time or part-time are able to save on transportation energy costs by significantly reducing commuting requirements. According to the 2023 American Community Survey, approximately 22% of Jamaica residents in the workforce worked from home. In the community survey completed for the Town Plan update, 34% of employed full-time residents reported they worked from home. As discussed in the Community Services and Facilities chapter of the Town Plan, there are limitations to remote work opportunities because of inadequate broadband internet service and cellular coverage in parts of Jamaica. Improving telecommunications infrastructure is critical to allowing for remote work options and reducing transportation energy use and costs for residents. However, it is important to note that many occupations do not allow for remote work so this strategy will have limitations.

Resource Mapping Process and Policy Tool

Jamaica will utilize the Town of Jamaica Solar Energy Potential and Town of Jamaica Wind Energy Potential maps generated by the Windham Regional Commission as baseline maps supporting the town's energy policies (Maps 1 and 2 of Appendix A). Map 4 depicts existing energy infrastructure and renewable energy generation sites in Jamaica.

Solar Resource Maps

Jamaica's solar map includes raw resource potential and known and possible constraints identified by the State. The Solar Resource Map shows 2,113 acres of prime solar generation land available without constraints and 8,953 acres available with some possible constraints. There are several solar projects in Jamaica, including two larger net-metered sites. Ground and rooftop PV solar generators in town have an installed capacity of 1,097.95 kW as of 2024.

Wind Resource Maps

Jamaica's wind map includes raw resource potential, known and possible constraints, grid infrastructure, transmission and distribution resources and constraints. There are no existing wind installations. There are 1,687 acres potentially suitable, from a wind resource availability perspective, for large scale commercial wind generation, 1,683 with possible, potential constraints and only 4 without constraints. There are a total of 6,175 acres in Jamaica potentially suitable, from a wind resource availability perspective for small-scale commercial wind generation, 136 without constraints and 6,038 available with possible, potential constraints. This estimate does not include the recent purchase of land on Turkey Mountain by the Nature Conservancy. Development of either large or small commercial wind generation on Jamaica's mountain ridge lines is deemed unacceptable for reasons enumerated elsewhere. There are 12,493 acres with potential residential wind development in Jamaica, 984 without possible, potential constraints and 11,509 acres available with possible, potential constraints. Jamaica will encourage residential wind generation development where feasible.

Jamaica's Preferred Locations

Jamaica will determine specific areas suitable for community solar generators by comparison of solar potential map (Map 1) included in this Energy Plan with our Town Plan's Existing Land Use and Proposed Land Use District maps, and on-site evaluation. In this determination, ridge lines, conservation areas, and special interest areas will be excluded from consideration. State-defined preferred locations, such as previously developed sites, brownfields, and gravel pits will be identified, as well as existing open fields where solar fields may be unobtrusively located. Community generators, co-ops, or other ventures will be encouraged to develop these sites. Residential sites for rooftop solar panels or small stand-alone solar arrays must be handled individually in that house orientation and available direct sunlight vary from property to property.

Similarly, Jamaica will encourage homeowners to participate in determining the suitability of their property for residential solar or wind generation by using the solar and wind potential maps with parcel overlays. Our Energy Committee will request suitability information from our residents. A planned town survey may be used for this purpose. This data will be used to keep homeowners informed as anticipated technology and business developments enable economic conversion to renewable energy generation.

Areas Unsuitable for Energy Siting

Jamaica has overlaid conserved lands and scenic areas and ridgelines from our Town Plan Future Land Use map with the wind potential map (see Map 3 of Appendix A). The high degree of correlation between ridge lines with commercial wind potential and the existing and proposed and current conservation areas and special sites leaves no areas with commercial wind potential that would not be in conflict with the Town's land-use policies. Existing and proposed conservation areas generally correspond with ridge lines identified in our 2025 Town Plan. Jamaica seeks to protect these areas for economic as well as

environmental reasons. This is further reason to exclude commercial wind from our approach to meeting regional targets. Excluding commercial wind development does not interfere with the town's ability to pursue development of renewable resources.

Jamaica's Energy Targets and Conservation Challenges

As part of Vermont's 2022 Comprehensive Energy Plan (CEP), the Public Service Department (PSD) released updated guidance to assist regions and municipalities in establishing targets for renewable generation, energy efficiency, conservation, and fuel-switching across energy sectors. The majority of the energy targets presented in this section have been derived from the LEAP model's CAP Mitigation scenario (see below), which was also updated as part of the 2022 CEP. The Windham Regional Commission (WRC) assisted Jamaica in developing appropriate town energy targets, which are detailed and described below. Energy targets embody the rate of progress modeled in the CAP Mitigation scenario, and as a result, are aspirational by nature. They indicate the areas where progress on certain energy issues is most needed, and can help the town identify strategies to direct local policymaking in support of state energy goals.

Energy Generation Targets: A Deviation for Towns in the Windham Region

Renewable generation targets are developed at the regional level and disaggregated to municipalities following guidance from the Public Service Department. The Public Service Department assigned energy generation targets to each of the regions in Vermont by disaggregating the projected 2050 statewide electrical demand (modeled in the LEAP tool) to regions based on an even proportion of land area and population. Regions were then tasked with breaking out this analysis to municipalities to support local enhanced energy planning.

PSD generation data, WRC maps, and LEAP model outputs show that towns in the Windham Region currently exceed state-assigned generation targets due to the disproportionate amount of renewable energy generated relative to the Region's population. As a result, Jamaica does not have a specific number of MWh the Town should aim to develop to help reach local, state, and regional objectives. The Town of Jamaica is still firmly committed to promoting local renewable energy development despite not having a quantifiable or contextually appropriate generation target to work toward. It should be noted that a 2.3-megawatt hydro generator recently commenced operation at the Ball Mountain Dam and a 500 kW solar array was recently installed, both of which are accounted for in determining existing power generation.

Although renewable energy generation can occur in the Town and supply its residents with reliable, affordable, and clean power, the Town is challenged by the current amount of energy being consumed. In order to minimize the amount of energy generation required, the town must first develop strategies to reduce the amount of energy consumed.

Projected Energy Use: LEAP Model Results

To help inform Jamaica's policies on energy conservation measures, Jamaica used guidance from the updated LEAP (Low Emissions Analysis Platform) model, developed by the Stockholm Environmental Institute as part of the state's comprehensive energy planning and climate action planning initiatives.

The LEAP model is used to guide Vermont's regions towards reducing the amount of greenhouse gas emissions and consuming 90% renewable energy by 2050 (referred to as the "90x50" goal). To accomplish the state's energy goals, there are several interim benchmarks built into the LEAP model which ensure a progressive pace in attaining that "90 x 50" goal. Vermont's energy goals are:

- Greenhouse gas (GHG) reduction requirements
    - 26% from 2005 levels by 2025
    - 40% from 1990 levels by 2030

  - 80% from 1990 levels by 2050
- 25% of energy supplied by renewable resources by 2025 (25 x 25)
- Building efficiency of 25% of homes (80,000 units) by 2020.

Incorporating those goals into the model produced energy generation, conservation, and fuel conversion targets at benchmark dates for all regions in the state, and is informed by the region's current energy profile. The WRC received the results from this model and was tasked with making those results relevant to its member towns. The WRC therefore divided its region-wide benchmark targets among its towns based on municipal consumption. The following paragraphs and figures show Jamaica's LEAP model results, and how much energy could be conserved in order to reduce the burden of energy generation facilities in the region.

Residential Heating Conservation & Fuel Conversion

In order to determine how much energy would have to be conserved or how much fuel conversion to renewable energy achieved, the LEAP model produced both "Business as Usual" and "CAP Mitigation" scenarios. The "Business as Usual" scenario is meant to depict energy use over decades if no major changes were made in our energy profile. The "CAP Mitigation" scenario shows one pathway that communities can adopt in order to reduce greenhouse gas emissions, conserve energy, and generate renewable energy so as to meet the state's 90x50 goals. This pathway is translated to Jamaica's use, and is shown below. It is another data estimate that serves to help inform the Town to develop its own policies for energy conservation and fuel conversion.

Figure E8 below show the 2022 LEAP results for Jamaica's residential heating sector. In both the "Business as Usual" and "CAP Mitigation" scenarios, energy consumption is modeled to decrease (on account of technological improvements, building innovation, and home efficiency improvements).

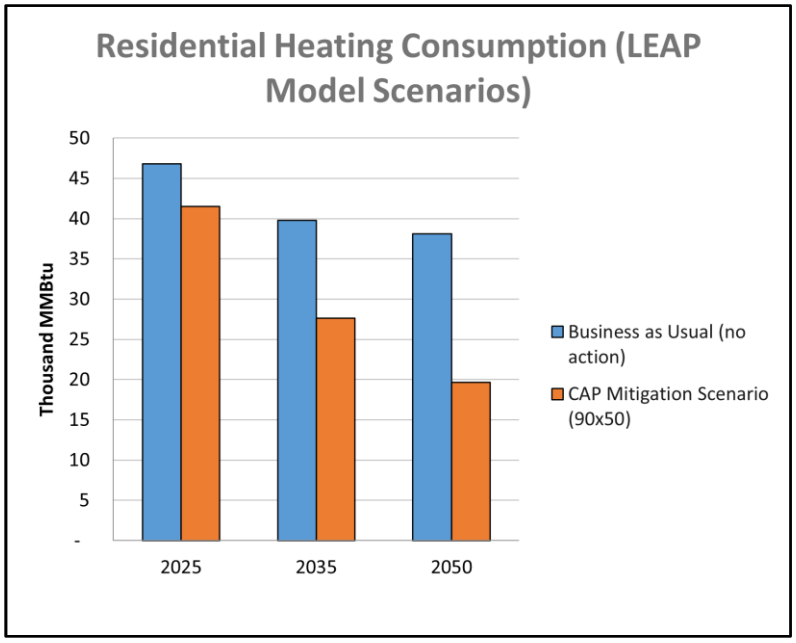

Figure E8
Jamaica Residential Heating Sector LEAP Results

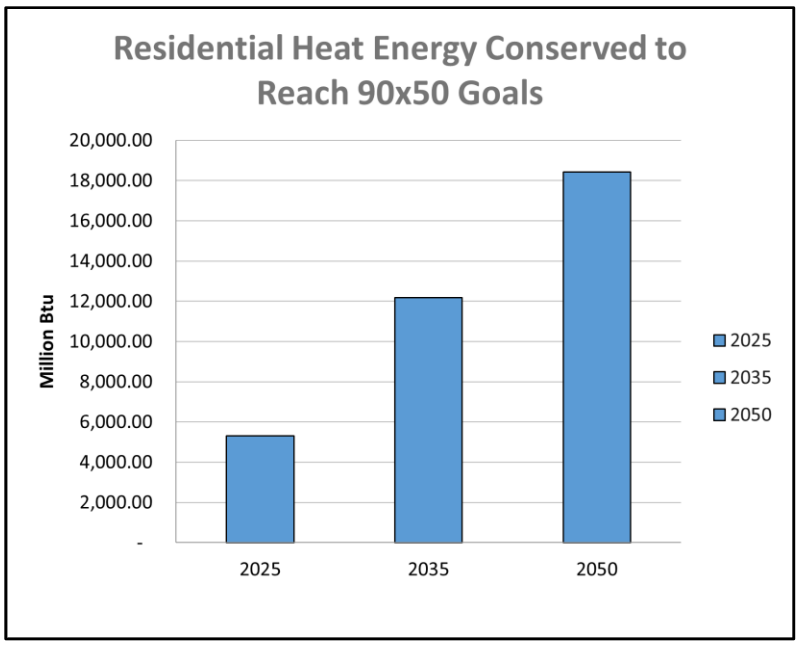

Figure E9
Jamaica Residential Heat Energy Conserved to Reach 90x50 Goals

However, the 90x50 scenario shows a sharper increase in the amount of energy conserved in residential heating. Figure E9 shows how much energy should be conserved through 2025, 2035, and 2050, to help the Town arrive at these energy goals. Not only would energy need to be conserved solely by building efficiency measures, but fuel conversion to more efficient energy sources would be promoted.
In order to attain the renewable energy goals, the following cumulative targets have been established for Jamaica for years 2025, 2035, and 2050.

Thermal (Heat) Efficiency Targets at Benchmark Years

Use/Sector	2025	2035	2050
Residential Thermal (increased efficiency and conservation): Percent of municipal households to be weatherized over benchmark years to meet efficiency targets.	22%	45%	68%
Residential Thermal (increased efficiency and conservation): Estimated number of municipal households to be weatherized.	94	203	329
Commercial Thermal: Projected commercial thermal energy consumed by town businesses (MMBtu).	14,399	14,113	14,591
Commercial Thermal: Projected commercial heat energy conserved over target years. (MMBtu).	3,232	3,518	3,040

Table E3
Jamaica Thermal (Heat) Efficiency Targets at Benchmark Years

Additionally, the following fuel conversion targets are set for heating fuel types used, with an emphasis towards shifting to more renewable heat sources and using more efficient sources (such as heat pumps).

Heating Fuel Switching Targets			
Use/Sector	**2025**	**2035**	**2050**
Residential and Commercial Thermal Fuel: Estimated new efficient wood heat systems overall (in units) in the LEAP 90x50 scenario (this includes both wood stoves and wood pellet burners for homes and businesses). This number may decline over the target years, which indicates an overall trend toward energy conservation and building weatherizing and Vermont's updated LEAP model assumptions.	90	55	31
Residential Fuel: Estimated number of new heat pumps.	100	269	396
Commercial Fuel: Estimated number of new heat pumps.	48	146	187

Table E4
Jamaica Heating Fuel Switching Targets

Transportation System Changes

The LEAP model created benchmark targets for both light and heavy duty vehicles, assuming a difference in residential and industrial energy needs and changes over time. Below are the two interpretations of these sector's efficiencies over time.

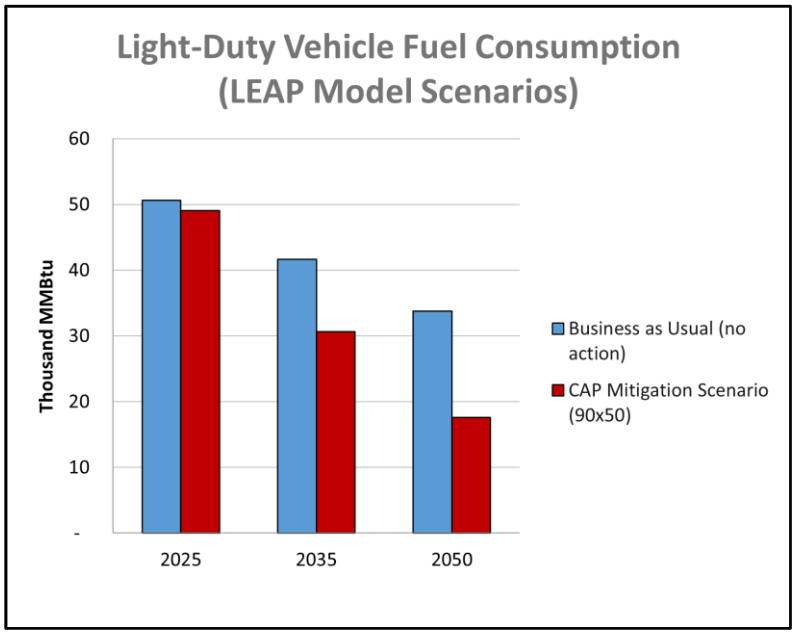

Figure E10
Jamaica Light-Duty Vehicle Consumption (LEAP Model Scenario)

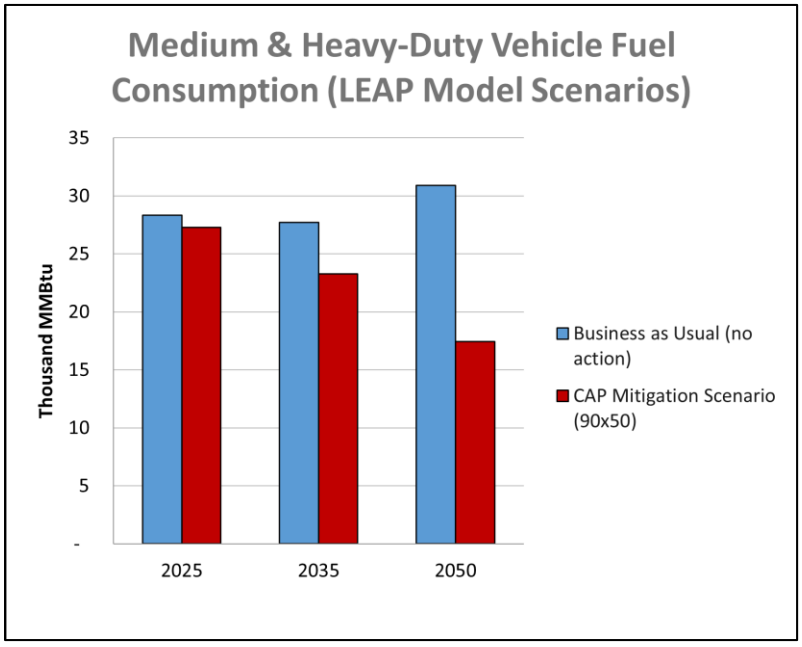

Figure E11
Jamaica Heavy-Duty Vehicle Consumption (LEAP Model Scenario)

Light-duty vehicle consumption represents a larger portion of the total amount of energy consumed by the transportation sector, and there is a large amount of energy conservation required. The LEAP model projects much of this conservation of energy comes from the electrification of the vehicle fleet, especially as market demand changes and technology improves. This reduction in gasoline consumption and electrification of the car motor comes in addition to increased cluster developments and other land use changes that improve the efficiency of our community's transportation network. Jamaica's economic development policies encourage business development in Jamaica Village and Rawsonville. Improved local availability of goods and services will decrease vehicle use.

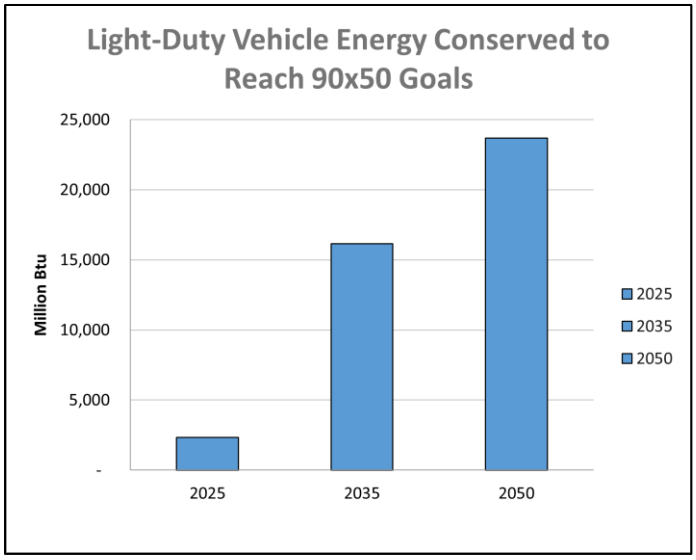

Figure E12
Jamaica Light-Duty Vehicle Energy Conserved to Reach 90x50 Goals

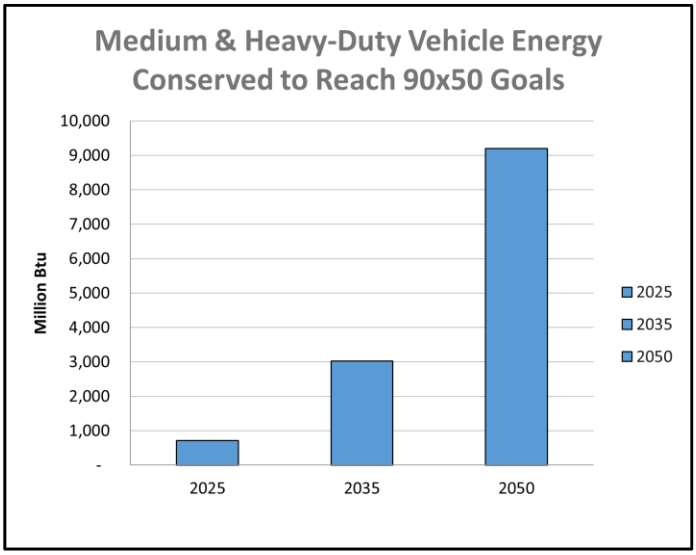

Figure E13
Jamaica Heavy-Duty Vehicle Energy Conserved to Reach 90x50 Goals

Heavy-duty vehicle consumption doesn't show the same curves as per light-duty vehicles, since commercial and industrial applications for this vehicle fleet isn't anticipated to change as much. However, efficiency in this sector is achieved by changing the fuel type for these vehicles from diesel to bio-diesel. Transportation targets for the years 2025, 2035, 2050 are included below.

Transportation Fuel Switching Targets			
Use/Sector	**2025**	**2035**	**2050**
Transportation Fuel: Estimated number of new electric vehicles	18	185	435
Transportation Fuel: Percentage of medium and heavy-duty vehicle fuel use attributable to bio-fuels	7%	6%	1%

Table E5
Fuel switching targets for the transportation sector, across the benchmark years.

Electricity Conservation

Targets for electrical efficiency and conservation are not derived from the LEAP model, but rather, the 2022 Energy Efficiency Market Potential Study. As a result, it is impossible to align the below targets with either the "Business as Usual" or "CAP Mitigation" scenarios. The Energy Efficiency Market Potential Study Data provides a proxy estimate for the amount of electric efficiency included in the demand projections embedded in the LEAP model.

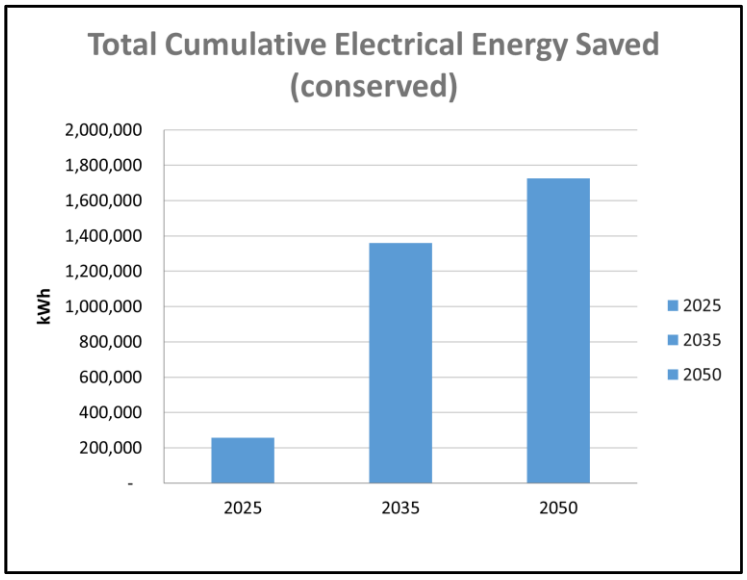

Figure E14
Jamaica's Cumulative Electrical Energy Savings (2022 EEU Market Potential Study)

Over the benchmark years, electricity rates are anticipated to increase due to a combination of more amenities, appliances, and motors being supplied by electric power, and an increase in the number of people using those products. The 90x50 scenario promotes electricity conservation in the form of energy-efficient appliances, lighting, and heating/cooling.

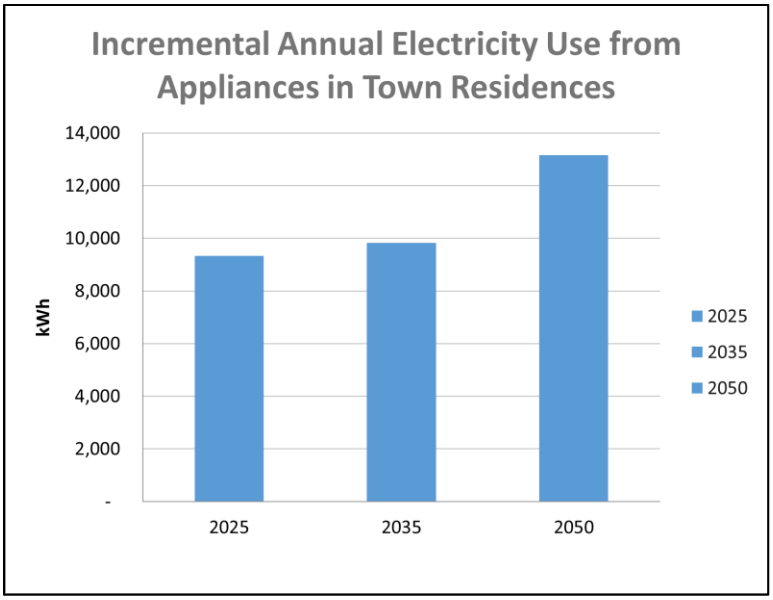

Figure E15
Jamaica's Incremental Electricity Usage from Appliances (2022 EEU Market Potential Study)

Pursuing these upgrades, the town is targeted to save the following in electrical conservation measures for target years 2025, 2035, 2050:

Efficiency Targets at Benchmark Years			
Use/Sector	**2025**	**2035**	**2050**
Residential Electric: Cumulative annual electrical efficiency savings for town residences (kWh) to meet efficiency goals	87,246	500,670	923,616
Commercial Electric: Cumulative annual electrical efficiency savings for town businesses (kWh)	156,870	787,878	710,460

Table E6
Electric-sector efficiency targets across the benchmark years.

Conservation and Efficiency Strategies

With total energy consumption in the Town in excess of 158,115 MMBtu, there is considerable opportunity for savings from various energy conservation and improved efficiency measures. Because most of the energy use in Jamaica is for private uses (home heating, commuting, etc.), savings would accrue primarily to residents. Public education is one of the most effective strategies to bring about savings through energy conservation and improved efficiency, though there are some specific policies that can also move the community in that direction.

Most new construction in Jamaica is required by the State to meet or exceed the Vermont Building Energy Standards (for both residential and commercial buildings) through the use of insulation, heating

systems, and weatherproof windows and doors. Current state building codes provide basic energy efficiency requirements for buildings; however, technology advancements have generated higher standards such as net-zero energy construction standards in which buildings generate as much energy as they consume.

Green construction and LEED Construction (Leadership in Energy and Environmental Design) standards promote the use of natural, recycled and durable building materials, as well as energy efficiency. These efficiency standards are also applied to landscaping, advocating for native plantings that are low-maintenance.

The siting, design, and construction of buildings strongly influences the amount of energy needed for heating as well as the amount of electricity needed for lighting. Proper subdivision design, building orientation, construction, and landscaping provide opportunities for energy conservation such as less vehicular travel, and by designs incorporating passive solar space, domestic hot water heating, natural lighting and photovoltaic electricity production.

Energy savings can be realized by retrofitting existing buildings with insulation, installing high-performance windows and doors to reduce heat loss, weather-stripping, replacing incandescent lights with LED bulbs, and using energy efficient appliances. The following programs are available to residents of Jamaica:

- Southeastern Vermont Community Action (SEVCA): SEVCA is the service provider in Windham County that runs the Weatherization Assistance Program. Weatherization services, which include an energy audit, diagnostic tests, analysis and installation measures, are available at no cost to income-eligible homeowners and renters. SEVCA is also available to help in the event of a heating emergency. They can help purchase oil, kerosene, propane or wood. In addition, they also work with electric companies in order to prevent disconnection and help negotiate payment plans.
- Efficiency Vermont: Efficiency Vermont is the State’s provider of energy efficiency services. They provide technical and financial assistance to electrical consumers for the purpose of improving the efficiency of existing and new facilities.
- ENERGY STAR Home Rebates: Energy Star Homes meet strict energy efficiency guidelines set by the U.S. Environmental Protection Agency and U.S. Department of Energy. Efficiency Vermont provides free financial, design, and technical to help build an ENERGY STAR qualified home. Benefits of being an ENERGY STAR home include financial incentives such as product rebates; utility savings; higher resale value; increased comfort and air quality; and other environmental benefits.
- Vermont Housing Finance Authority’s Energy Saver Loan Program: Administered by Windham & Windsor Housing Trust, this program offers low interest loan funding for homeowners for an energy audit and improvements specified in the audit.

Transportation-related efficiency strategies are a very significant part of Jamaica’s efforts, since it represents a significant portion of the energy demand. Simple changes, such as ride-sharing, combining trips and using alternative transportation, will conserve fuel and reduce wear and tear and maintenance costs on individual vehicles. Fuel-efficient and electric cars will use less gasoline and emit less pollution. Effective land use planning can promote energy conservation. Targeting new development toward areas located close to the community's major roads and existing settlements will minimize the energy consumed by residents commuting, and will reduce the energy required to deliver essential services to residents and businesses.

Energy Equity and Energy Burden

In addition to aligning local energy policies with regional and state initiatives, Jamaica strives to incorporate energy equity and environmental justice principles into the town's efforts to decarbonize and conserve energy. The Energy Equity Project Framework identifies some of these equity goals as the following:

- Everyone has continuous access to energy
- Everyone lives in a healthy, safe, and comfortable home
- No one spends more than 6% of their income on energy bills
- Those who are most impacted have the most powerful voice in decision-making and receive a share of benefits

Among those most impacted by the price of energy (and other associated environmental burdens) are environmental justice groups, defined by Act 154 as any census block group in which:

- The annual medium household income is not more than 80% of the State median
- Persons of Color or Indigenous Populations comprise at lese 6% or more of the population
- At least 1% or more of households have limited English proficiency

Other frontline populations include older individuals, people with disabilities, and renters, all of whom experience greater vulnerability to fuel price volatility and other concerns for energy planning. Jamaica seeks to improve outcomes for environmental justice groups and promote efficiency and conservation measures that emphasize these focus populations. One strategy the town can take to embody this approach is to pursue policies that reduce energy burden.

Energy burden is defined as the proportion of household income spent on home heating, transportation fuel, and electricity. Below is a table summarizing the energy burden analysis conducted for Jamaica as part of Efficiency Vermont's most recent 2023 Energy Burden report.

Energy Burden Analysis (2023 EVT Report)			
Thermal Energy Burden	Transportation Energy Burden	Electricity Burden	Total Energy Burden
4%	5%	2%	11.8%

The town's total energy burden is 11.8%, which is considered moderate for Vermont. The thermal and transportation sectors contribute significantly to this energy burden status. Jamaica will continue to support programs and organizations that provide incentives, rebates, and other awards to income-eligible residents who are a part of the town's environmental justice community (see *Conservation and Efficiency Strategies* section). The highest-priority measures from an energy burden perspective include fuel assistance programs, discounted rates for income eligible households, disconnection protections, and other fiscal policies.

Energy Goals, Policies, and Action Steps

Goal 1: Jamaica will reduce the total energy use by our Town through education and promotion of economic opportunities to implement energy conservation and efficiency measures and convert to renewable and recyclable energy sources.

Jamaica is starting from a minimal base of renewable energy sources. Current rooftop capacity is 57 KW. A 500 KW commercial array exists, but it provides power to a different community. There are no residential wind towers. A 2.2 MW hydro source does exist at Ball Mountain Dam, but its operation is not well publicized. Because of this, informing Jamaica's citizenry is the essential first step of implementing this plan.

Jamaica will use the communications tools available to inform our citizenry and promote energy savings and conversion opportunities. We will enable residents to exploit the nexus of advances in energy savings technology and the innovative financing methods that will follow with economic self-interest. We will combine the interests of good citizenship in reducing the CO2 burden on the atmosphere with energy cost savings products and practices. Most importantly, we will bring low up-front cost financing programs to our citizens' attention to make it financially feasible for everyone to participate in energy saving efforts.

Heating costs are a major element of all Jamaica residents' budgets and a significant municipal operating cost. Conversion to advanced heating technology can save sufficient energy costs to more than pay for conversion. Financing programs that reduce initial capital outlay can make energy savings possible for everyone. Jamaica will encourage conversion to efficient heating systems. We will identify local businesses selling wood heating products including cord, pellet and wood chip fuel and high efficiency wood heating systems.

Responsible forest management is required to make wood heating effective in reducing CO2 from wood heating systems. With its preponderance of forest lands, Jamaica is in an excellent position to do this and will continue to emphasize responsible forestry for CO2 reduction as well as environmental and economic concerns. Harvesting wood for heating purposes as well as timber sales in a manner that promotes forest re-growth will be encouraged.

Jamaica will lead by example by identifying and promoting opportunities for cost savings through energy conservation. Opportunities may include improvements in conservation such as improved insulation and weatherization as well as heating source conversion. For demonstration projects involving town owned buildings, initial costs and lifecycle cost reduction will be assessed to determine cost effectiveness of improvements considered. The number of years required for heating cost reduction to offset capital outlay will be determined and used as the major decision criteria. Energy certifications will be sought. Capital costs of projects to be undertaken will be included in proposed Town budgets.

As recognized in the 2022 CEP, compliance with all the energy savings goals is dependent on voluntary actions of an informed citizenry. Informing Jamaica's residents of available opportunities is therefore key to meeting all policy objectives. The Planning Commission's approach to meeting all goals will be by facilitating the alignment of our residents' economic interests with available energy-saving programs, products and — most importantly — low- cost, low up-front capital financing opportunities. A number of opportunities currently exist while others will emerge as the enabling energy savings and conversion technologies mature. For example, the lifecycle cost of cold weather heating systems will decrease as conversion to PV solar electricity generation proceeds. The spread in operating costs will, in turn, enable attractive financing options for conversion. A primary responsibility of the Planning Commission's Energy Committee will be to maintain awareness of the state of energy conservation technology and financing opportunities in order to inform our citizens and encourage adoption of the various conservation measures.

Policy 1.1: Jamaica will promote individual energy conservation through use of the town website and informational town energy presentations and workshops.

Action Steps:

1. Maintain an Energy Committee responsible for overseeing implementation of this plan (see policy 1.5).
2. Promote state Energy Efficiency Utility (EEU) and the Weatherization programs by using the town website to inform our citizens. Encourage and investigate ways to fund training and education for Town staff to develop the Town website to its fullest potential in order to use it effectively for disseminating such information. Develop social media policies in conjunction with other Town agencies to establish the most appropriate ways to use social media to promote energy information We will provide links to available electric, natural gas, and deliverable fuel EEU program resources and Efficiency Excellence Network (EEN) contractors.
3. Co-sponsor weatherization information presentation to town meetings, recording them for later viewing on our website for those unable to attend the original presentation.
4. Promote energy-efficiency opportunities in new construction and remodeling to businesses we hope to attract to Jamaica (see economic development). Jamaica will focus energy conservation measures on the buildings that are municipally owned with particular emphasis on measures to reduce operating costs.
5. Encourage energy audits in any affordable housing units Jamaica develops.

Policy 1.2: Jamaica will promote the efficient use of heating energy in commercial and residential buildings by encouraging citizens to follow energy saving standards and building codes emphasizing lifecycle costs savings of heating energy conservation.

Action Steps:

1. Promote the use of Vermont's residential building energy score/label through use of the town's website. We will encourage local realtors to feature energy labels in real estate offers.
2. Make commercial building energy standards available to all commercial and residential land use registration applicants.
3. Encourage the use of the EPA's Portfolio Manager tool with EEU assistance for commercial building construction and renovation. The residential stretch energy codes will be promoted for all residential Act 250 projects and required for all commercial Act 250 projects.
4. Review and evaluate making the stretch energy code the standard recommended for all building additions, alterations, and repairs.
5. Join the Vermont Climate Action Coalition and its popular tool, the Vermont Energy Dashboard, to encourage citizens to take energy-actions, no matter how small. The Planning Commission will take the lead on publicizing and implementing. See https://www.vtenergydashboard.org/stories/vermont-climate-action-communities

Policy 1.3: Jamaica will promote the decreased use of fossil fuel for heating by encouraging the use of efficient heat technology to reduce heating costs.

Action Steps:

1. Encourage conversion to cold climate heat pumps and use of ground-source heat pumps as primary heat sources for new construction and major remodeling projects.
2. Assess the cost-effectiveness of converting municipal building heating systems to cold weather heat pumps. Promote conversion based on potential costs savings.

3. Encourage the use of efficient wood heating systems in both commercial and residential buildings including the upgrade of the significant number of wood heating units already in use to EPA approved cord and pellet stoves by making heating cost reduction information available through the town website and town energy information meetings.
4. Encourage the installation of district heating systems in Jamaica Village and Rawsonville.

5. Identify local businesses selling wood heating products including cord, pellet and wood chip fuel and high efficiency wood heating systems.

Policy 1.4: Jamaica will lead by example by assessing and, where cost effective, upgrading the heating of municipally owned buildings.

Action Steps:
1. Jamaica will conduct a baseline energy study including energy audits to determine energy use and identify opportunities for energy cost savings.
2. Identify energy conservation cost saving opportunities. Evaluate capital investment requirements to implement identified actions and return on investment through operating costs reductions.
3. Prepare Town Budget proposal for implementation to be approved in annual Town meetings.

Policy 1.5: The Jamaica Planning Commission's Energy Committee will educate itself on the current state of energy conservation technology and energy conservation financial assistance programs. This policy is considered key to meeting all of our Energy Plan goals.

Action Steps:
1. The Energy Committee will maintain awareness of the current state of renewable energy technology and related financing options.
2. Review available material on energy conservation technology and financial assistance programs from both State and commercial sources on an ongoing basis to maintain a current awareness of available conservation measures suitable for Jamaica's residents.
3. Participation in the Vermont Energy Dashboard and related future programs will facilitate this.

Goal 2: Jamaica will address reduction of transportation energy with steps to immediately facilitate ride sharing. We will encourage use of electric vehicles and or alternative fuel vehicles as alternative automotive technology and renewable or recyclable fuel becomes available and economically feasible.

As noted above, the dispersed commuting and shopping needs of our rural community are unmet by public transportation or alternative vehicles and fuels. In the near term, Jamaica will implement measures to facilitate ride-sharing to common destinations. Anticipated advancement in automotive technology that will increase the range of electric vehicles and the variety of models appropriate to rural community needs will make it practical to promote their purchase for family and municipal use. As conversion to renewable electricity proceeds, savings in fuel costs will provide economic incentives for their use. As they become available, Jamaica will implement measures to promote the use of alternative vehicles and fuels and the economic benefits they offer.

Policy 2.1: Jamaica will encourage the increased use of public transit.

Action Steps:
1. Identify public transit options available to Jamaica residents, including those offered by local service organizations, such as Neighborhood Connections, Senior Solutions, Southeast Vermont Transit (operates The Current, the MOOver, and Dial-A-Ride).

2. Develop an information-dissemination strategy, including print, online, and in-person methods in order to keep Jamaica residents aware of options and choices.
3. Examine strategies to increase effective communications and exchange of knowledge.

Policy 2.2: Jamaica will promote a shift away from single-occupancy vehicle trips through

strategies appropriate to Jamaica.

Action Steps:
1. Identify established local ride-sharing and public transit options (as outlined above).
2. Develop a local database or clearinghouse to identify Jamaica residents who make regular trips to popular destinations (Brattleboro, Grace Cottage, etc.).
3. Investigate liability and insurance impacts for those taking part in ride-sharing opportunities, either as drivers or riders.
4. Examine strategies for publicizing the above -- utilizing varied online and offline messaging formats.
5. Investigate the possibility of locating CSA share drops in local establishments to save driving transport time.
6. Investigate the possibility of park-and-ride locations in the village of Jamaica and Rawsonville to encourage ride-sharing opportunities.

Policy 2.3: Jamaica will promote a shift away from gas/diesel vehicles to electric or other non-fossil fuel transportation options through strategies appropriate to Jamaica.

Action Steps:
1. Identify costs and funding opportunities for installing EV charging stations in the Village Center.
2. Develop marketing and publicity for the above (if installed) to alert visitors to Jamaica State Park of the availability of EV charging opportunities. In the meantime, alert potential visitors to Jamaica of other charging stations in the area.
3. Examine strategies for funding and maintenance for EV charging stations. Investigate technology for solar charging of EV stations.

Policy 2.4: Jamaica will facilitate the development of walking and biking infrastructure through strategies appropriate to Jamaica.

Action Steps:
1. Identify locations in Jamaica Village and elsewhere in town where bicycle racks would be most used.
2. Develop marketing and publicity to inform residents and visitors of safe places to keep their bikes in town.
3. Examine strategies to secure funding for the above.

Goal 3: Jamaica will continue its standing policy of encouraging compact, relatively high density development in Jamaica and Rawsonville Villages and designated Commercial/Residential (CR) and Residential Area (RA) land use districts. Recent and planned infrastructure improvements in Jamaica village and along Route 30 will be promoted to encourage development in our villages and in designated areas (CR and RA districts) along this corridor. Policies promoting low-density land use and preservation of forests and other important natural resources in Conservation (CN) and Rural Resource Area (RRA) Districts, which are central to the Town's economic development goals, will continue to be followed. Responsible forest management practices that are essential to absorb the increase in CO2 that increased use of wood heating will produce will continue to be emphasized.

Policy 3.1: Jamaica's land use policies and descriptions of current and future land use will continue to encourage compact, relatively high density development in designated Village Centers and CR and RA land use districts. Jamaica's land use policies and land use district maps will continue to discourage sprawl and inappropriate scattered development outside of designated Village Centers, CR, and RA Districts.

Land Use Policies:

1. Jamaica Village shall continue as the center of the Town. Future expansion of publicly owned community facilities buildings shall be in the Village.
2. Further development within and adjacent to the Village districts must be carefully planned to minimize adverse impacts on the character of the village, existing water supply and wastewater disposal, and traffic within the villages, and to avoid areas vulnerable to flooding and fluvial erosion.
3. The character of Jamaica Village and Rawsonville is an important asset to the community and shall be maintained by limiting uses within the Villages to those that are compatible with the existing commercial and residential uses.
4. Encourage the restoration and preservation of buildings that contribute to the architectural and historical character of the Town. When such buildings become obsolete, new uses shall be found for them that will preserve the architectural and historic character of the buildings.
5. Lands adjacent to or including areas of historical, educational, cultural, scientific or architectural value, and areas identified on the Special Sites and Areas Map, shall be used in a manner that will not reduce or destroy the value of the site or area.
6. Lands adjacent to existing public land and existing or planned public facilities shall be used in a manner that will not diminish the value of such investments or interfere with their intended uses.
7. Require appropriate site planning and landscape design by siting structures to fit into the natural characteristics of the land and maintaining vegetative buffers along roads and parcel boundaries.
8. Require the use of low impact development strategies (e.g., cluster development, conservation subdivisions, conservation easements) that minimize the fragmentation and loss of agricultural land, forest land, unique or ecologically sensitive areas and special sites and areas.
9. New development in Residential Areas and Commercial-Residential Areas shall be for residential, commercial, recreational, or open space uses that are compatible with and relate to the primarily residential character of the area, including compliance with all applicable potable water and wastewater regulations applicable to the area.
10. Campgrounds and campsites shall not be sited in Residential Areas or Commercial-Residential Areas.
11. Roads, driveways, and utilities shall be designed to avoid the fragmentation of identified natural areas, forest blocks, and wildlife habitat.
12. Encourage the town to purchase or accept donations of rights to properties that have high public value.
13. Scenic hills and ridgelines shall be left in their natural condition, free from all development, including, roads, building structures, utilities, renewable energy facilities, and wireless broadcast and telecommunications facilities.
14. Require developers to incorporate the following in the site planning of commercial facilities: shared access, landscaping, compatible building design, screening, and provisions for pedestrians.
15. Reduce light pollution by using fixtures that direct light below the horizontal plane, utilizing energy efficient lamps, and using light levels appropriate for the use of the property.

Action Steps:

1. Examine strategies to achieve broad support for the goals outlined in the 2025 Town Plan.

Policy 3.2: Jamaica will prioritize development in compact, mixed-use centers when physically feasible and appropriate to the use of the development, or identify steps to make such compact development more feasible.

Action Steps:

1. Identify barriers to development in compact, mixed-use centers (septic, water issues etc.)
2. Develop consensus of citizens to address the above.
3. Examine and promote strategies to remove barriers, including exploring funding opportunities.

Goal 4: Jamaica will locate areas suitable for renewable energy generator siting, PV solar, residential wind, and micro-hydro.

Because of Jamaica's rural nature and the emphasis we place on conservation, the types of preferred sites for PV solar arrays, as specified by the Public Utility Commission rule 5.100, are limited to rooftops, possible future municipally-designated preferred sites, and potentially, part of an active gravel pit. Jamaica will identify those land parcels that are suitable for either rooftop or residential ground mounted PV solar installations. Jamaica will identify areas comprised of one or more contiguous parcels that are suitable for a commercial PV solar array. Jamaica will identify parcels suitable for residential wind towers. Jamaica will investigate the suitability of siting small hydroelectric generators in the West River to include the potential to meet the stringent licensing requirements. Initial identification of appropriate sites will occur when this plan is adopted and will be repeated as advances in renewable energy technology increase the potential of currently marginal sites. Additionally, Jamaica will investigate the feasibility of developing a hydroelectric pumped energy storage system at the Ball Mountain and Townshend dams. This investigation will address environmental concerns including silting, potential river bank damage, and required structural improvements to the Ball Mountain dam as well as the cost effectiveness of building a pumped energy system utilizing the two dams.

Jamaica will utilize the Solar Resource and Wind Resource maps to identify individual parcels with either PV solar or residential wind potential and areas comprised of contiguous parcels for community PV solar arrays. The following decision criteria will be utilized:

- PV solar or residential wind potential of parcel
- Consistency with 2025 Jamaica Town Plan land use policies
- Minimal viewshed impact
- Minimal impact on agricultural use of high quality soils
- No impact on conservation areas, wildlife travel corridors, or living habitat
- Location on agricultural soils only with facility design compatible with continued agricultural use
- Compliance with Jamaica's Flood Regulation
- South facing slopes of out of agricultural production river bottomlands which allow higher density PV solar arrays.
- For commercial PV solar arrays, proximity to 3-phase power lines to minimize Infrastructure expansion until such time as "smart grid" architecture supports both 3-phase and single phase connections
- Existing road structure suitable for installation and maintenance

Other than town plan prohibition on ridge line development and flood plain regulations that may impose conditional use permits for solar arrays located in Jamaica's special hazard flood zones, Jamaica has no constraints on individual property owners' land use, but rather, policies encouraging land use consistent with the Town's goals for natural resource protection, cultural heritage, and economic development objectives. The Town's policies will encourage individual landowners of parcels identified as high potential solar or residential wind sites to develop renewable energy projects in a manner consistent with these goals.

Commercial solar development will be encouraged in areas determined suitable from Map 1 in Appendix A. Jamaica will not impose any constraints nor discourage renewable energy generation systems which could limit the town's ability to pursue further decarbonization of generation resources, other than those constraints created by the Town Plan land use policies and the provisions of the Jamaica Floodplain Regulation. Jamaica will not impose any constraints nor discourage renewable energy generation systems, other than those contained in our town plan land use section or conditions required by Act 250 permits

and Jamaica Flood Regulation permits. Jamaica will review the parcels with PV solar or residential wind generation potential to determine those unsuitable for development because of conflict with designated conservation areas, special interest areas, and ridgelines.

A major theme to this Energy Plan is that innovative financing plans that will accompany renewable energy technology development will motivate conversion to renewable energy on the basis of cost reduction. Jamaica will take the lead in demonstrating that conversion to renewable energy for town-owned buildings and surrounding property will reduce annual town operating costs. Budget savings will be translated to tax savings and publicized in town meetings or other energy information presentations.

Jamaica will monitor commercial offerings of renewable energy conversion projects to determine the availability of renewable energy technology that offers either low or no capital investment and reduced energy costs. Falling renewable energy costs, coupled with renewable energy technology advancements, should support this in the near future. As it becomes economically advantageous, Jamaica will initiate projects to save taxpayer money and demonstrate financial advantages to town residents.

Policy 4.1 Jamaica will identify parcels and or areas to encourage renewable energy generation siting and development.

Action Steps:
1. Upon approval of this Energy Plan, conduct an initial assessment of parcels with suitable potential utilizing renewable energy potential maps with parcel overlays, Maps 1 and 2 from appendix A.
2. Identify Jamaica municipal parcels or multi-parcel zones with adequate PV solar generation potential.
3. Identify Jamaica municipal parcels with adequate wind potential for residential wind generation.
4. Apply above criteria to identified PV Solar and residential wind parcels to eliminate unsatisfactory sites.
5. Make identified parcel PV solar and residential wind potential available to parcel owners.
6. Make identified parcel PV solar potential map available to PV solar contractors.
7. Review site potential assessment as enabling renewable energy technology advances increase the potential of previously marginal areas.

Policy 4.2: Jamaica will ensure that a sufficient amount of land, with sufficient PV solar, residential wind potential, or micro-hydro is identified.

Action Steps:
1. Jamaica will review the suitable parcels identified in goal 4.1 as having potential for PV solar or residential wind generation potential to identify those that are homesteads.
2. Jamaica will use the energy section of the planned town survey update to assess the homesteads' suitability for rooftop or ground-mounted PV solar and residential wind with questions of building orientation, available space for ground mounted arrays, space for a residential wind tower, and interest in reducing energy costs with renewable energy technology to identify the number of buildings likely to contribute to town energy goals.
3. Jamaica will review the parcels identified in Goal 4.1 as having solar potential to determine the total acreage suitable for community PV solar arrays.
4. Jamaica will use the energy section of the planned town survey update to determine suitable acreage owner's interest in leasing acreage for community solar array development to identify the acreage likely to contribute to town energy goals.

Policy 4.3: In the absence of local land use regulations other than a NFIP compliant floodplain zoning regulation, Jamaica has no constraints on or prohibitions of individual landowner's development of residential solar or wind installations beyond prohibition of development in

designated ridge line areas that are subject to Act 250 or section 248 jurisdictions. While Town Plan land use prohibition of ridge line development precludes commercial wind development, Jamaica will impose no constraints, other than those required by the NFIP zoning regulation and conformance with the land use policies of the Jamaica Town Plan, in the pursuit of increased PV solar, micro-hydro, residential wind, and community solar arrays.

Action Steps:

1. Jamaica will ensure that any changes to the Town Plan Land Use section will be assessed for their impact on changing the number of parcels likely to install either rooftop PV solar or residential wind renewable energy generators. If any impact is identified, Jamaica will ensure that the benefit of the change, e.g. enhancing environmental preservation, outweigh the impact on meeting renewable energy development.
2. If action step 1 identifies any reduction in available parcels for renewable energy generation, Jamaica will ensure that the remaining land resources are adequate to meet town energy goals.

Policy 4.4 Jamaica will identify preferred, potential, and unsuitable areas for renewable energy generation.

Action Steps:

1. Jamaica will review the parcels with PV solar or residential wind potential developed with the action steps of policy 4.1 and 4.2 to identify any meeting the criteria of Public Utility Commission Rule 5.100.
2. Utilizing the Solar and Wind Generation Potential Maps with parcel conservation and special interest areas from Jamaica's Town Plan Maps overlaid, identify those parcels in which commercial wind development is prohibited or in which solar or residential wind development is unsuitable because of low potential. Identification of areas deemed unsuitable for PV solar or residential wind generation will not interfere with the town's ability to reach its goals.

Policy 4.5: Jamaica will review parcels identified in the action steps of policy 4.1 to identify areas comprised of one or more contiguous parcels as preferred areas for commercial PV solar generator siting.

Action Steps:

1. From the set of parcels identified in the action steps of policy 4.1 with potential for PV solar generation, Jamaica will identify areas, comprised of one or more parcels with sufficient area for either a large or medium sized PV solar generator. Jamaica will identify at least 10.6 acres meeting these criteria.
2. Jamaica will prioritize areas identified according to the distance to 3 phase power lines, and access from existing roads criteria of policy 4.1.
3. Jamaica will advise owners of parcels that include areas suitable for commercial generator siting of their identification as such.
4. With parcel owner's consent, Jamaica will advise commercial PV solar generator developers of site availability.

Policy 4.6: Jamaica will demonstrate leadership by example with respect to the deployment of renewable energy

Action Steps:

1. Jamaica will maintain awareness of the state of renewable energy technology and financing option available from solar enterprises.
2. As anticipated advances occur, Jamaica will conduct a feasibility study of conversion of town-owned

buildings, town office, town garage, and firehouse, to renewable energy utilizing rooftops and surrounding land for solar arrays.

3. When feasibility studies show a combination of both electrical rate reductions and financing costs are less that existing energy costs, Town approval will be sought for executing a conversion project as both a demonstration and budget reduction effort.
4. Jamaica will conduct and economic feasibility assessment of converting town building heating systems to heat pumps. A conversion project will be initiated when capital and operational costs are lower than current heating costs.

Jamaica Energy Plan Appendix A – Energy Maps

List of Maps

1. Town of Jamaica Ground-Mounted Solar Energy Potential. Depicts prime and secondary ground-mounted solar potential.

2. Town of Jamaica Wind Energy Potential. Depicts prime and secondary wind potential for 30 meter, 50 meter, and 70 meter hub heights.

3. Town of Jamaica Wind Potential with Future Land Use Overlays. The Jamaica Wind Potential Map with the Conserved Land and Scenic Hill or Ridgeline Overlays from the Town Plan Future Land Use Map. This map shows the juxtaposition of conserved land and scenic areas and ridgelines with areas identified as suitable for large and small commercial and residential wind development.

4. Town of Jamaica Energy Infrastructure and Generation. Depicts existing energy transmission lines, 3 phase power distribution lines, and road network in Jamaica. Depicts existing hydro generation sites and solar generation sites between 15 Kilowatts and 100 Kilowatts and greater than 100 Kilowatts.

Ground-Mounted Solar Potential

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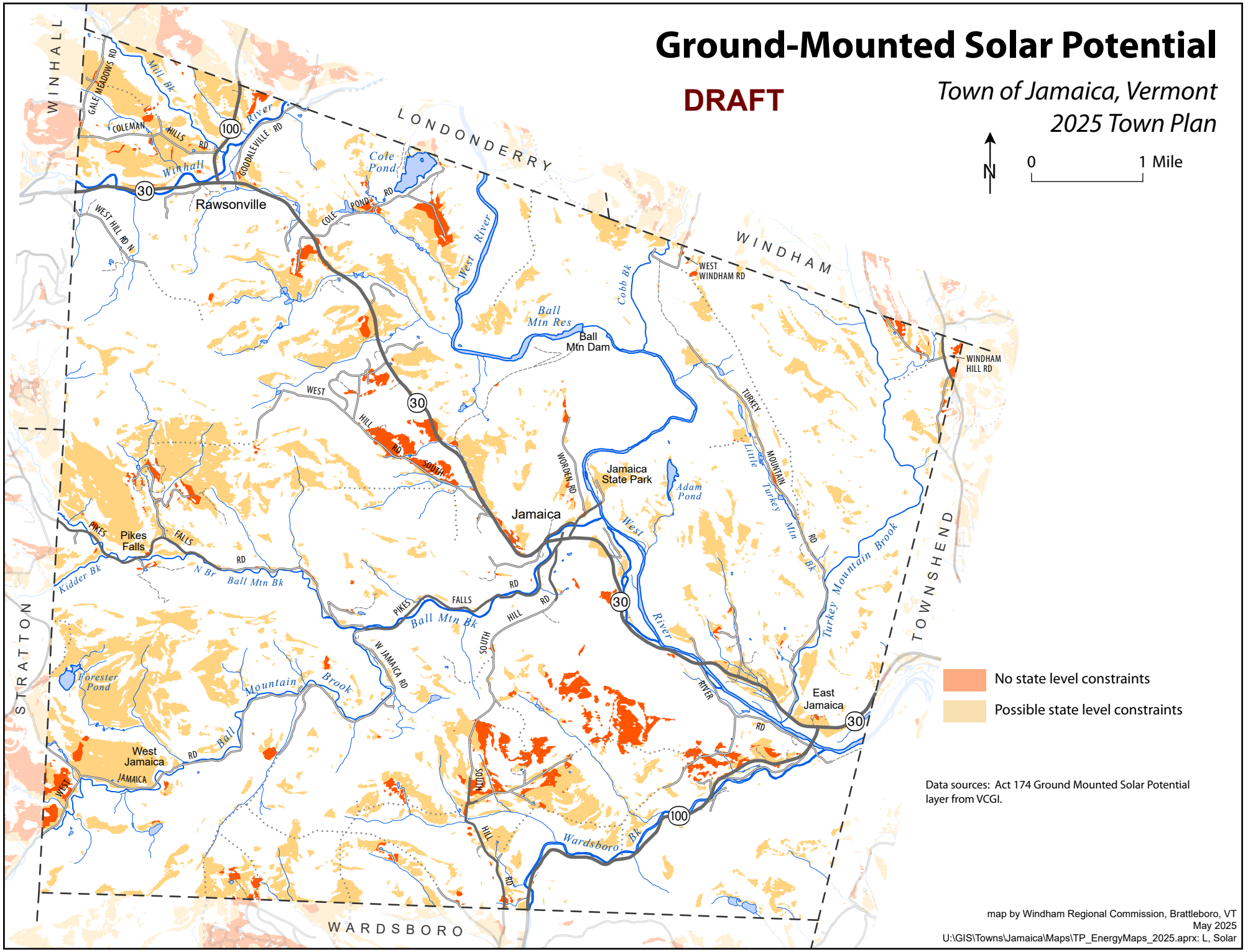
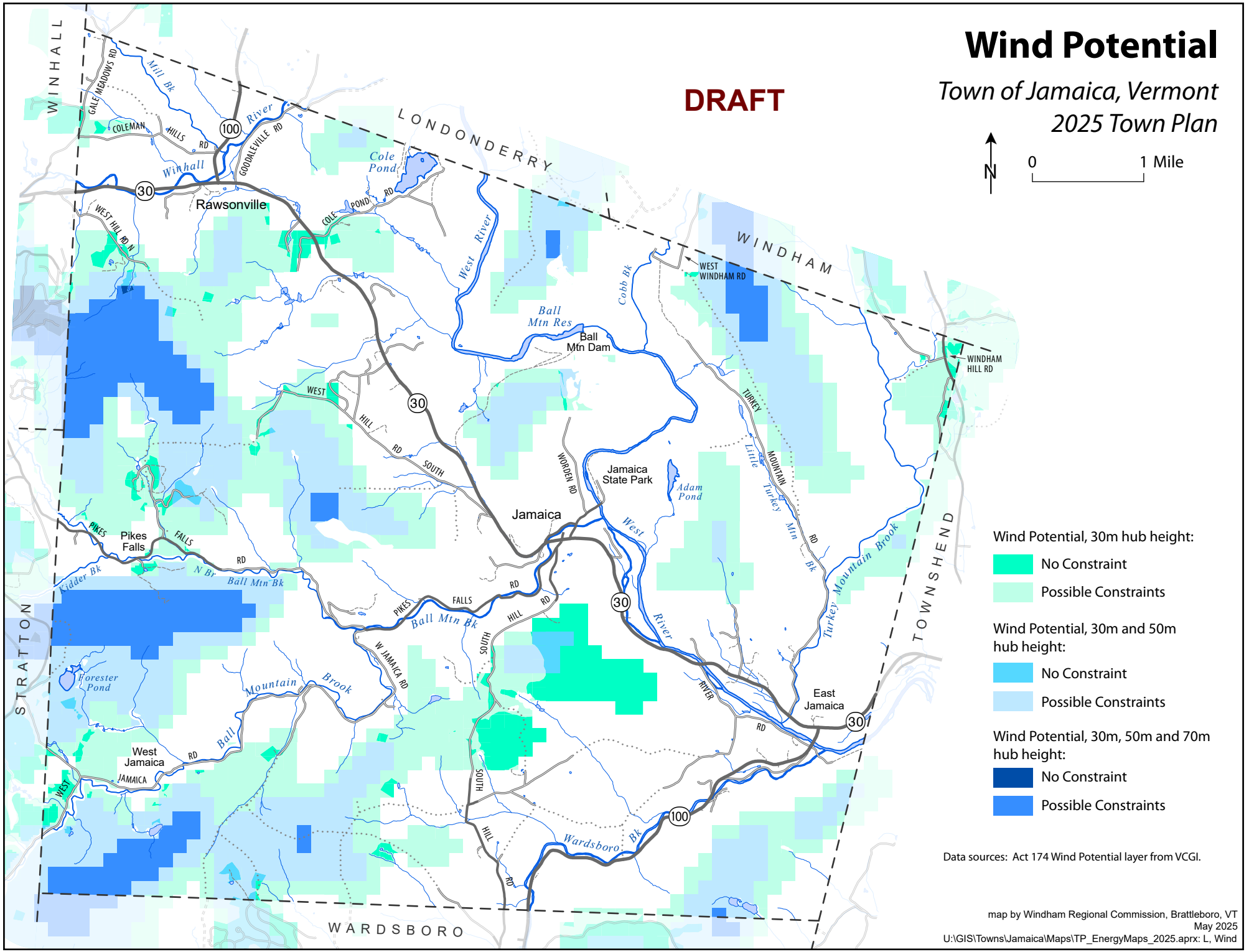
Town of Jamaica, Vermont
2025 Town Plan



Data sources: Act 174 Ground Mounted Solar Potential layer from VCGI.

map by Windham Regional Commission, Brattleboro, VT
May 2025
U:\GIS\Towns\Jamaica\Maps\TP_EnergyMaps_2025.aprx: L, Solar


Wind Potential
Town of Jamaica, Vermont
2025 Town Plan
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N
0
1 Mile
WINHALL
LONDONDERRY
WINDHAM
STRATTON
TOWNSHEND
WARDSBORO
Rawsonville
Jamaica
Jamaica State Park
Ball Mtn Dam
Ball Mtn Res
Pikes Falls
West Jamaica
East Jamaica
Cole Pond
Adam Pond
Forester Pond
Mill Bk
Winhall River
West River
Cobb Bk
Kidder Bk
N Br Ball Mtn Bk
Ball Mtn Bk
Mountain Brook
W Jamaica Rd
Little Turkey Mtn Bk
Turkey Mountain Brook
Wardsboro Bk
River Rd
West Hill Rd
South Hill Rd
Pikes Falls Rd
Worden Rd
West Windham Rd
Windham Hill Rd
Gale Meadows Rd
Coleman Hills Rd
Goodaleville Rd
Cole Pond Rd
Wind Potential, 30m hub height:
No Constraint
Possible Constraints
Wind Potential, 30m and 50m hub height:
No Constraint
Possible Constraints
Wind Potential, 30m, 50m and 70m hub height:
No Constraint
Possible Constraints
Data sources: Act 174 Wind Potential layer from VCGI.
map by Windham Regional Commission, Brattleboro, VT
May 2025
U:\GIS\Towns\Jamaica\Maps\TP_EnergyMaps_2025.aprx: L, Wind

Wind Potential with Future Land Use Overlays

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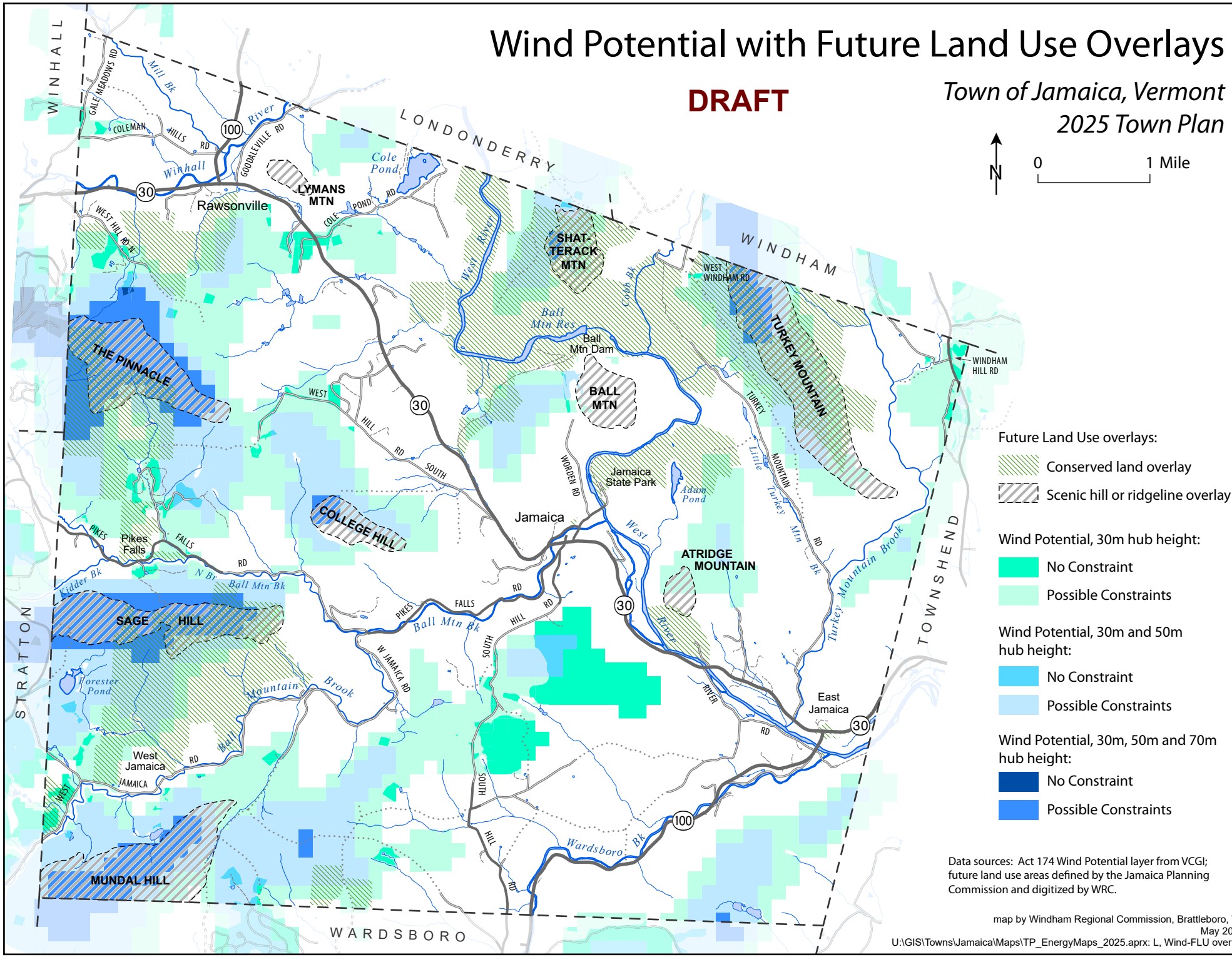
Town of Jamaica, Vermont
2025 Town Plan



Future Land Use overlays:

- Conserved land overlay
- Scenic hill or ridgeline overlay

Wind Potential, 30m hub height:

- No Constraint
- Possible Constraints

Wind Potential, 30m and 50m hub height:

- No Constraint
- Possible Constraints

Wind Potential, 30m, 50m and 70m hub height:

- No Constraint
- Possible Constraints

Data sources: Act 174 Wind Potential layer from VCGI; future land use areas defined by the Jamaica Planning Commission and digitized by WRC.

map by Windham Regional Commission, Brattleboro, VT
May 2025
U:\GIS\Towns\Jamaica\Maps\TP_EnergyMaps_2025.aprx: L, Wind-FLU overlay

Energy Infrastructure and Generation

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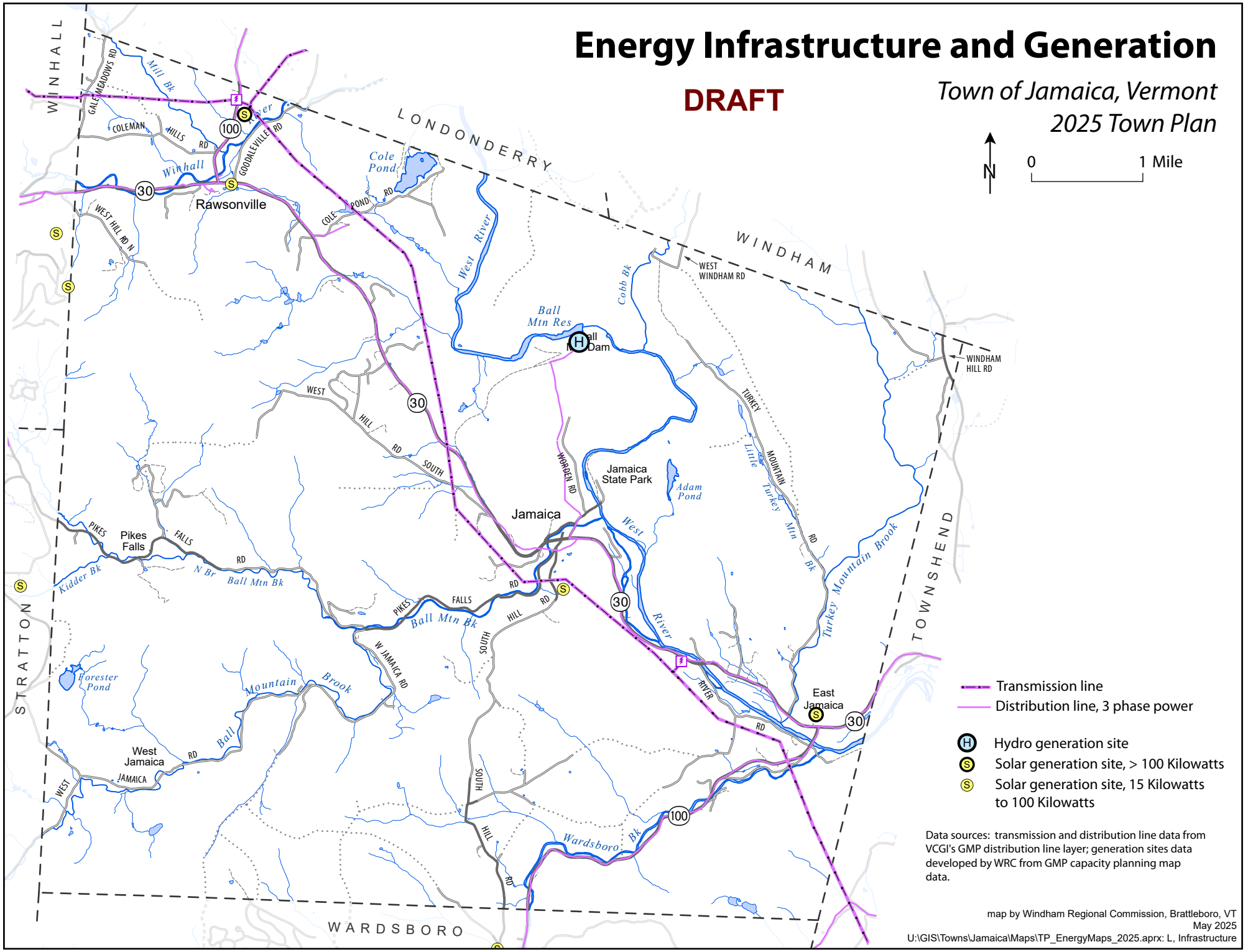
Town of Jamaica, Vermont
2025 Town Plan



Data sources: transmission and distribution line data from VCGI's GMP distribution line layer; generation sites data developed by WRC from GMP capacity planning map data.

map by Windham Regional Commission, Brattleboro, VT
May 2025
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APPENDIX B – Implementation Program

The Implementation Program summarizes the "Priorities for Action" from each chapter of the Town Plan and suggests who in the Town should lead each effort along with any partners. The anticipated timeline for each action step is categorized as short term (completed within 1 – 4 years), long term (completed within 8 years), or as an ongoing activity that is part of normal municipal operations. For cost estimates, action steps over $100,000 are categorized as "High", action steps between $25,000 - $100,000 are categorized as "Medium", and actions steps less than $25,000 are categorized as "Low." The Potential Resources column identified possible funding sources or non-monetary assistance, such as volunteer time.

Land Use				
Action	**Recommended Lead/Partners**	**Timeline**	**Cost Estimate**	**Potential Resources**
Evaluate options for the Town's acquisition of public open space land for recreation, conservation, or a Town Forest	Selectboard, Planning Commission	Long Term	High	Grant funds, Town Budget
Assess opportunities to establish green spaces in the village areas	Planning Commission, Volunteers	Long Term	Low	Volunteers
Develop a master plan for Jamaica Village that addresses development opportunities, natural resources constraints, and infrastructure needs with the goal of creating a visionary plan for the village that will implement the goals and policies within the Town Plan.	Planning Commission	Short Term	Medium	ACCD Municipal Planning Grant
Natural Resources				
Identify for future planning the wetlands that perform a significant function in providing wildlife habitat, as defined in the Vermont Wetland Rules, and the existing or possible new artificial wetlands (vegetated drainage ways and stormwater detention basins), which are important for non-point pollution control	Planning Commission, VT Department of Environmental Conservation	Long Term	Low	State funds
Use road maintenance methods and materials that will maintain or improve water quality, such as those described in the Vermont Better Roads Manual	Road Commissioner, Selectboard	Ongoing	High	Town Budget, State funds
Economic Development				
Establish a Jamaica Business Council	Selectboard, Volunteers	Short Term	Low	Volunteers
Explore opportunities to partner with adjacent towns on economic development efforts that benefit the larger region	Selectboard, Planning Commission	Ongoing	Low	Volunteers

Action	Recommended Lead/Partners	Timeline	Cost Estimate	Potential Resources
Work with the Windham Regional Commission to develop a Jamaica local recreational resources map	Planning Commission	Short Term	Low	Town Budget
Work with BDCC on the town's economic development goals and identify projects that are consistent with the 2024 CEDS recommendations	Selectboard	Short Term	Low	Volunteers
Potable Water Supply and Wastewater				
Advance the Preliminary Engineering Report examining the feasibility of a wastewater collection and treatment system in Jamaica Village and pursue all state and federal funding opportunities.	Planning Commission, Selectboard	Long Term	High	CWSRF, NBRC, ACCD, Congressional Designated Spending, Town Budget
Engage local citizens throughout the community wastewater planning process by information dissemination and public meetings	Planning Commission, Selectboard	Ongoing	Low	Volunteers
Submit an application to the Brattleboro Development Credit Corporation to include the Jamaica Village community wastewater project as a Southern Vermont Comprehensive Economic Development Strategy (CEDS) project and as a Regional Priority Project	Planning Commission, Selectboard	Short Term	Low	Volunteers
Energy				
Refer to the Enhanced Energy Plan in Appendix A for recommended actions steps related to the Town's energy goals				
Community Facilities and Services				
Evaluate and strengthen local government services where needed with technical assistance from appropriate state and regional agencies	Selectboard	Ongoing	Low	State and Regional Agencies
Continue providing an annual Town appropriation to the JVF&R to meet community needs	Selectboard	Ongoing	High	Town Budget
Establish a procedure for JVF&R to review subdivision proposals so that they can work with developers to minimize the risks of fires and maximize their ability to combat fires.	Planning Commission, Selectboard, JVF&R	Long Term	Low	Volunteers

Action	Recommended Lead/Partners	Timeline	Cost Estimate	Potential Resources
Participate in local and regional emergency planning efforts	Selectboard, JVF&R, EMD	Ongoing	Low	Volunteers
Stock the emergency shelter at Jamaica Village School with emergency supplies	Selectboard, JVF&R, EMD	Ongoing	Low	Town Budget
Continue appropriation to the Jamaica Memorial Library to meet community needs	Selectboard	Ongoing	Medium	Town Budget
Evaluate the existing uses and physical condition of town-owned buildings and assess future facility needs.	Selectboard	Short Term	Medium	ACCD Municipal Planning Grant
Study the need for alternative recreational facilities and programing for children, young adults, and elderly residents and assess the potential for using underutilized town land and buildings to meet these needs.	Selectboard, Planning Commission, Volunteers	Long Term	Low	Volunteers
Retain Class 4 town roads, legal trails, and other public rights-of-way for recreational use	Selectboard	Ongoing	Low	N/A
Create a Jamaica Trails Map that shows places to walk, hike, and bike in Jamaica	Planning Commission	Short Term	Low	Town Budget
Work with the Jamaica Community Arts Council on ways to support and expand arts, cultural, recreational, and community programming at Town Hall	Selectboard, Volunteers	Short Term	Low	Volunteers
Coordinate with providers of communication services in the siting, construction, alteration, development, decommissioning, and dismantling of new lines, towers, poles, and equipment	Selectboard, Planning Commission	Ongoing	Low	Volunteers
Continue to appoint a representative to the Deerfield Valley Communications Union District to represent the community's interest	Selectboard	Ongoing	Low	Volunteers
Explore public and private partnerships to pursue the expansion of telecommunications infrastructure, such as the use of Town-owned land for facilities.	Selectboard, Planning Commission	Ongoing	Low	Volunteers

Education				
Action	**Recommended Lead/Partners**	**Timeline**	**Cost Estimate**	**Potential Resources**
Continue, through membership in the West River Education District or by other appropriate means, to provide comprehensive educational and vocational training opportunities for all children and young adults.	School Board	Ongoing	Low	Volunteers
Encourage the use of all facilities, including the State Park and Library with its VELI- STEM (Vermont Early Literacy Initiative-Science, Technology, Engineering, and Math) program.	School Board, Library	Long Term	Low	Volunteers
Disseminate information on available early education and adult education resources. Reach out to those residents that may benefit from early education and adult learning services	Volunteers, Local Organizations	Ongoing	Low	Volunteers
Work with Town representatives on the West River Education District Board to represent the community's interests as they relate to the future of the Jamaica Village School	Selectboard	Ongoing	Low	Volunteers
Housing				
Consider creating a Housing Committee to assess and recommend ways to improve housing affordability for residents.	Selectboard, Planning Commission	Short Term	Low	Volunteers
Consider a short term rental ordinance to help monitor short-term rental activity and address areas of concern regarding impact on adjacent properties and neighborhoods	Selectboard	Short Term	Low	Volunteers
Work with the Windham Regional Commission and neighboring towns to plan for housing to meet the needs of Jamaica and the surrounding region	Selectboard, Planning Commission	Ongoing	Low	Volunteers
Transportation				
Continue to work with state and regional officials toward implementation of traffic calming on Route 30	Selectboard, Planning Commission, VTrans	Ongoing	Low	State funds, Volunteers

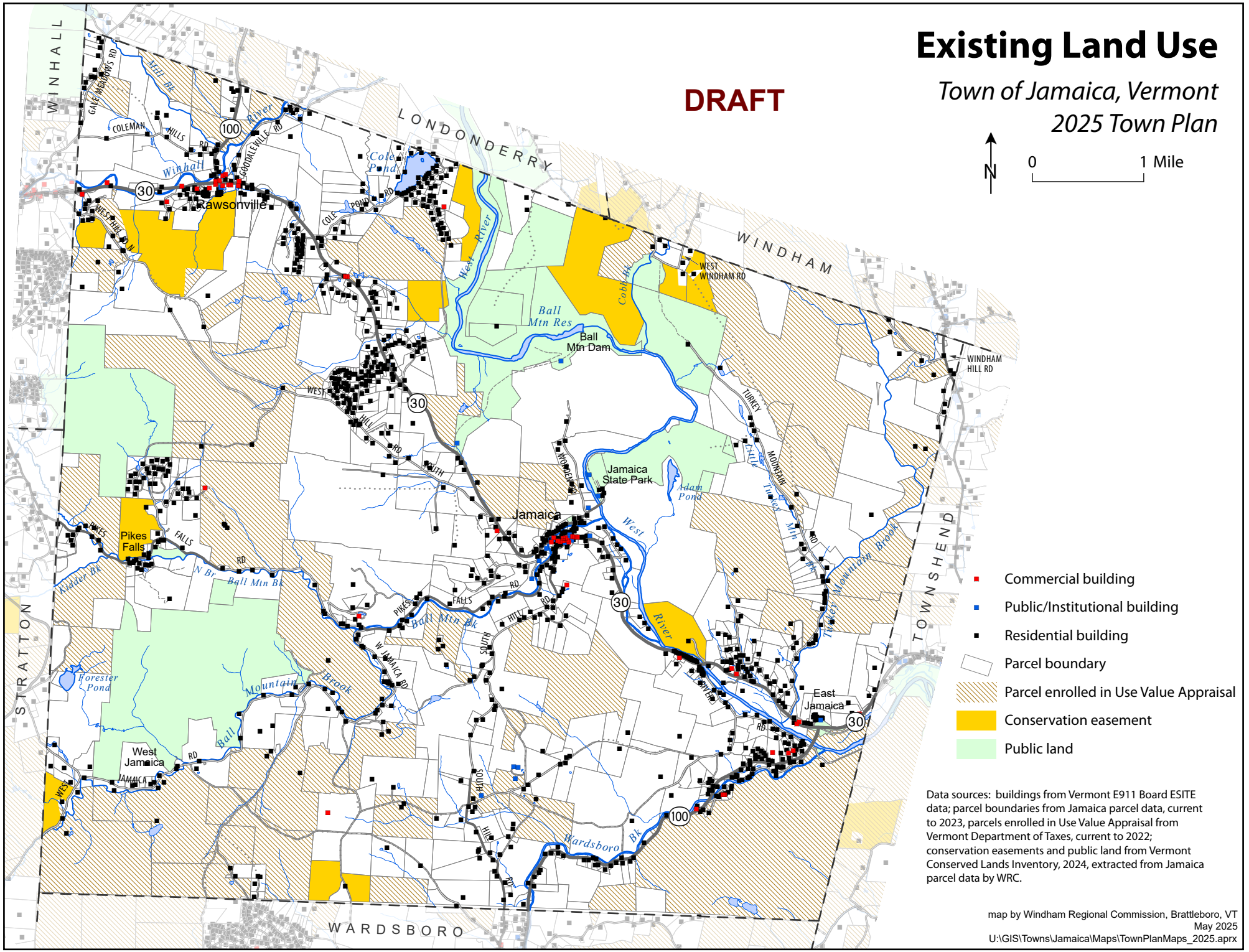
Action	Recommended Lead/Partners	Timeline	Cost Estimate	Potential Resources
Maintain a road inventory that lists each road, its mileage, and its current condition. Maintain a bridge inventory that lists each bridge and its current condition. Use these inventories to prioritize and plan for needed improvements	Selectboard, Road Commissioner, Hwy Dept	Ongoing	Medium	Town Budget
Review options for adequate and safe parking in Jamaica Village and make recommendations for improvements, if needed	Planning Commission	Ongoing	Low	Volunteers
Encourage resort traffic to be directed away from South Hill Road and Pikes Falls Road	Selectboard	Ongoing	Low	Volunteers
Implement a maintenance plan, including snow removal, for sidewalks	Road Commissioner	Short Term	Medium	Town Budget
Complete a feasibility study for sidewalk improvements on Depot Street from Route 30 to Jamaica State Park	Selectboard, Planning Commission	Short Term	Medium	VTrans Grant
Explore traffic calming strategies in the village of Rawsonville to improve pedestrian and traffic safety	Selectboard, Planning Commission	Long Term	Medium	VTrans Grant
Consider the adoption of a Class 4 Road Policy	Selectboard	Short Term	Low	Volunteers
Continue to work with VTrans on the final design and construction of the State Park Bridge.	Selectboard, Road Commissioner, VTrans	Short Term	Low	Volunteers
Flood Resilience				
Ensure that the Town is familiar with Flood Insurance Rate Maps (FIRMs) and ANR River Corridor maps.	Planning Commission, Selectboard, ZBA, Floodplain Administrator	Ongoing	Low	Volunteers
Update the Flood Hazard Area Regulations as needed to meet current standards and consider the inclusion of fluvial erosion hazard regulations	Planning Commission, Selectboard	Short Term	Low	
Seek grants and other financing to improve the flood resiliency of critical municipal infrastructure and facilities located in the SFHA, River Corridor, or other flood-prone areas	Selectboard	Ongoing	High	Volunteers

Action	Recommended Lead/Partners	Timeline	Cost Estimate	Potential Resources
Maintain and regularly update the Jamaica Local Hazard Mitigation Plan and the Local Emergency Operations Plan	Planning Commission, Selectboard	Ongoing	Low	Federal and state grants, Volunteers
Participate in watershed-level planning with other towns in the region to address common flood resiliency goals	Planning Commission, Selectboard	Ongoing	Low	Volunteers

APPENDIX C – Town Plan Maps

(*Note: Refer to Appendix A for Enhanced Energy Plan Maps*)

1. Existing Land Use
2. Future Land Use
3. Transportation and Community Resources
4. Soil Resources
5. Special Sites and Areas
6. Water Resources
7. Wildlife and Plant Resources
8. Flood and Fluvial Erosion Hazard Areas
9. Open Space and Conservation Lands
10. Designated Village Center


Existing Land Use
Town of Jamaica, Vermont
2025 Town Plan
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1 Mile
WINHALL
LONDONDERRY
WINDHAM
STRATTON
TOWNSHEND
WARDSBORO
Rawsonville
Pikes Falls
West Jamaica
Jamaica
Jamaica State Park
East Jamaica
Ball Mtn Dam
Ball Mtn Res
Cole Pond
Forester Pond
Adam Pond
Commercial building
Public/Institutional building
Residential building
Parcel boundary
Parcel enrolled in Use Value Appraisal
Conservation easement
Public land
Data sources: buildings from Vermont E911 Board ESITE data; parcel boundaries from Jamaica parcel data, current to 2023, parcels enrolled in Use Value Appraisal from Vermont Department of Taxes, current to 2022; conservation easements and public land from Vermont Conserved Lands Inventory, 2024, extracted from Jamaica parcel data by WRC.
map by Windham Regional Commission, Brattleboro, VT
May 2025
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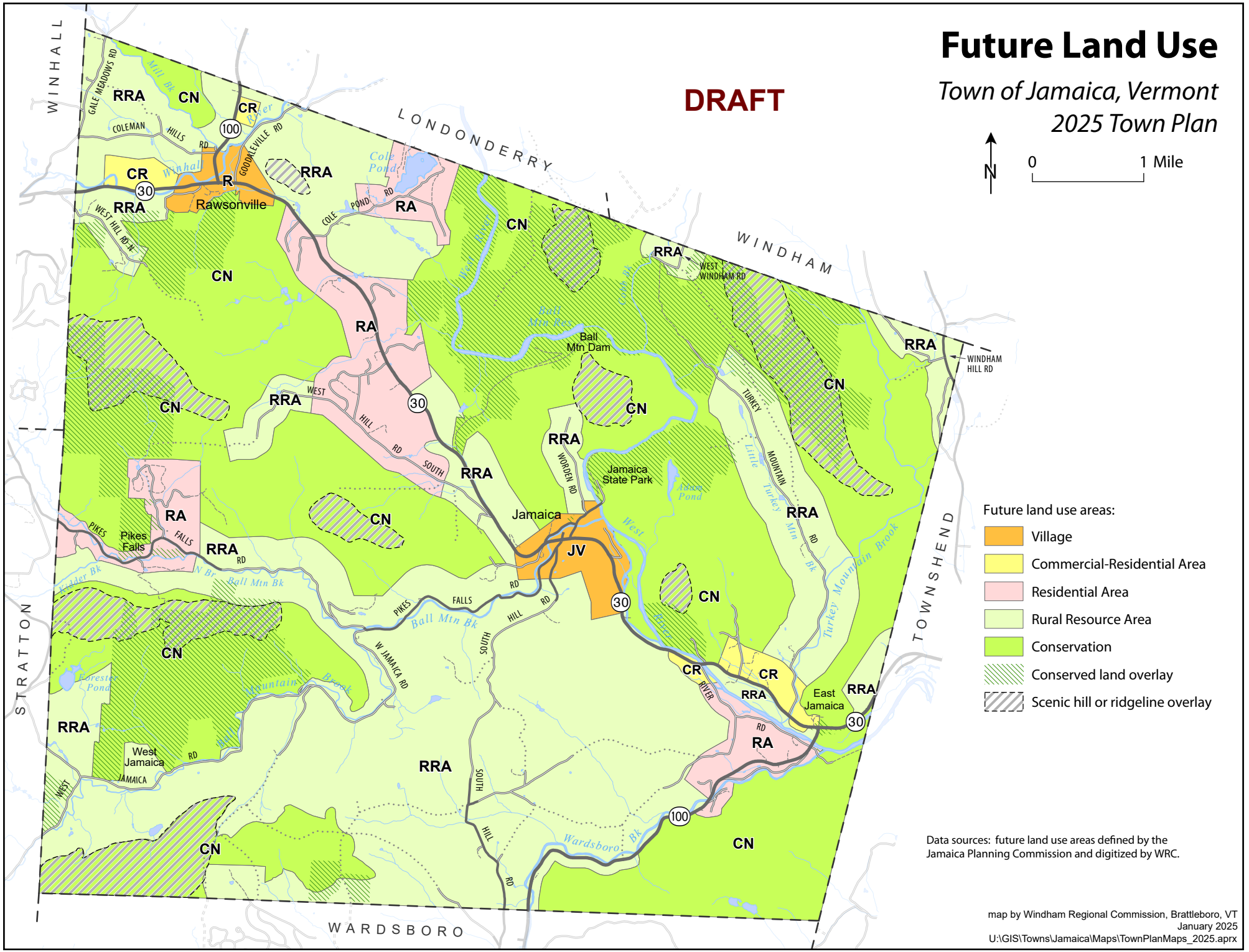
Future Land Use
Town of Jamaica, Vermont
2025 Town Plan
DRAFT
N
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1 Mile
WINHALL
LONDONDERRY
WINDHAM
TOWNSHEND
STRATTON
WARDSBORO
Rawsonville
Ball Mtn Dam
Jamaica
Jamaica State Park
Pikes Falls
West Jamaica
East Jamaica
RRA
CN
CR
RA
JV
Future land use areas:
Village
Commercial-Residential Area
Residential Area
Rural Resource Area
Conservation
Conserved land overlay
Scenic hill or ridgeline overlay
Data sources: future land use areas defined by the Jamaica Planning Commission and digitized by WRC.
map by Windham Regional Commission, Brattleboro, VT
January 2025
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Transportation and Community Resources

Town of Jamaica, Vermont
2025 Town Plan

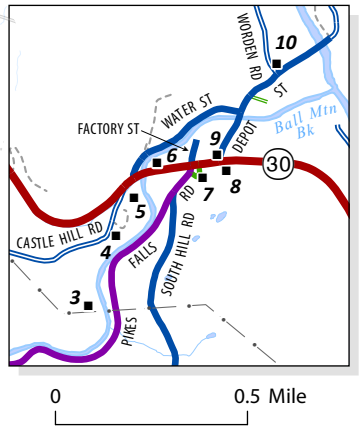
DRAFT

Key to Community Facilities:
1. Old Rawsonville schoolhouse
2. Ballfield
3. Transfer station
4. Town garage
5. Fire station
6. Post office
7. Town office
8. Town hall
9. Library
10. Elementary school

N

0 1 Mile

Data sources: roads data from Vtrans, updated by WRC in 2024; community facilities identified by the Jamaica Planning Commission and mapped by WRC; electric transmission lines from VCGI data.



- State highway
- Class 2 town highway, paved
- Class 3 town highway, paved
- Class 4 town highway, paved
- Class 2 town highway, unpaved
- Class 3 town highway, unpaved
- Class 4 town highway, unpaved
- Class 4 town highway, impassable
- Legal trail
- Private road *
- Community facility
- Electric transmission line
- West River Trail

* - these are roads not on state or town highway system, and may include state forest and US ACOE roads

map by Windham Regional Commission, Brattleboro, VT
November 2024
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Soil Resources

Town of Jamaica, Vermont
2025 Town Plan

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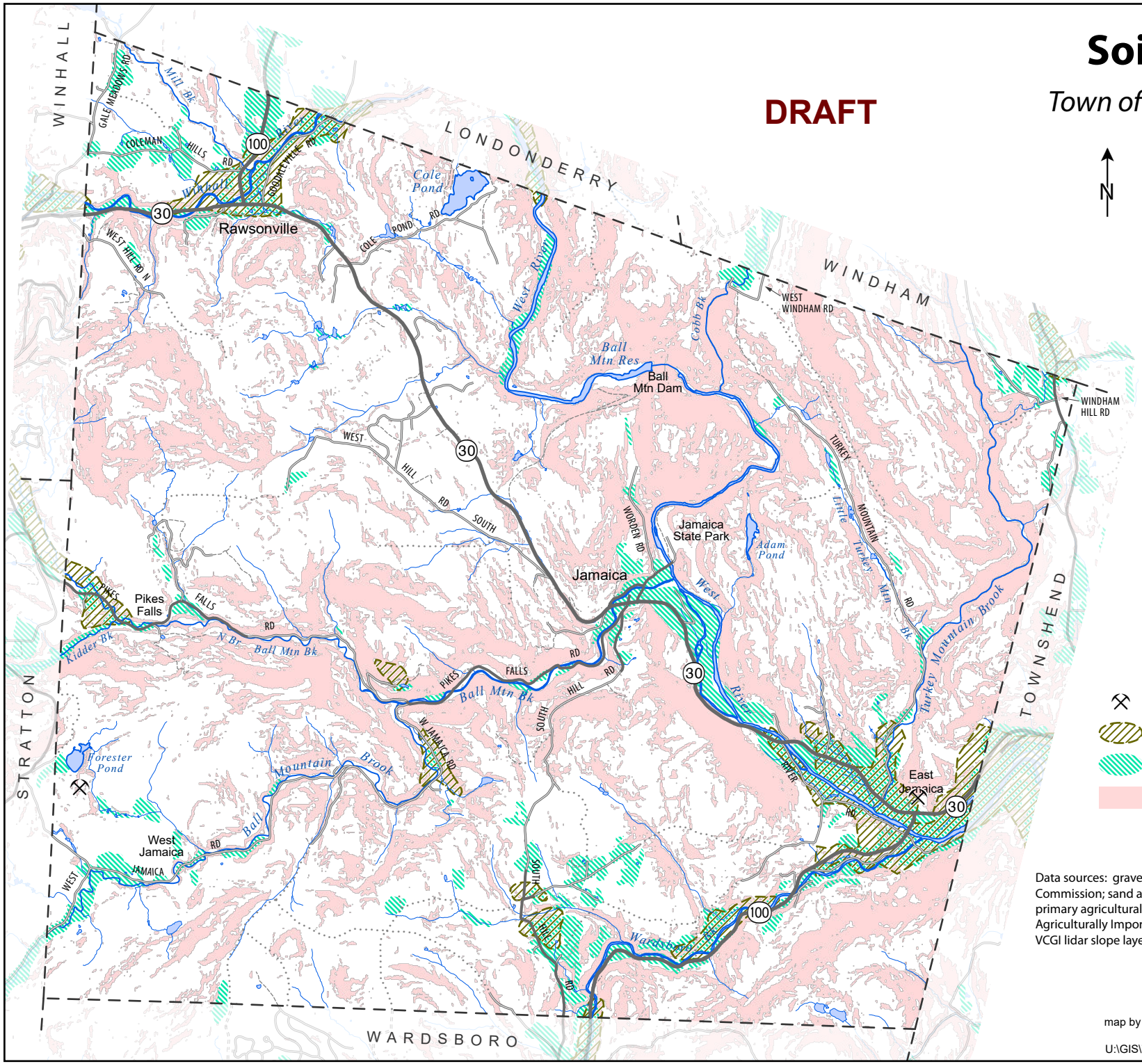

Gravel pit

Sand and gravel deposit

Primary agricultural soil

Steep slope (>25%)

N

0 1 Mile

Data sources: gravel pits from Jamaica Planning Commission; sand and gravel deposits from VT ANR, primary agricultural soils (prime or statewide) from VCGI Agriculturally Important Soils layer, steep slopes from VCGI lidar slope layer.

map by Windham Regional Commission, Brattleboro, VT
May 2025
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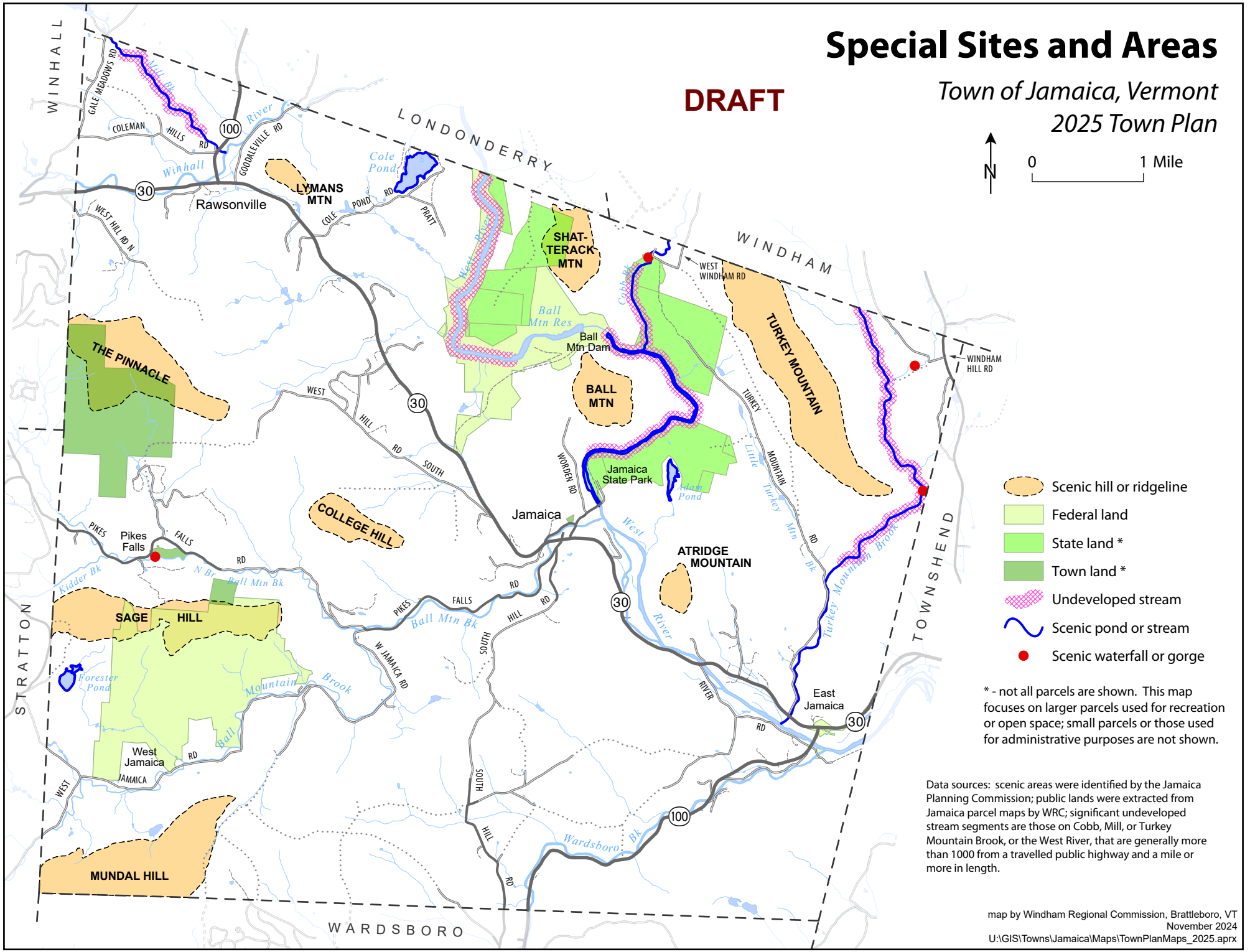
Special Sites and Areas

DRAFT

Town of Jamaica, Vermont
2025 Town Plan



* - not all parcels are shown. This map focuses on larger parcels used for recreation or open space; small parcels or those used for administrative purposes are not shown.

Data sources: scenic areas were identified by the Jamaica Planning Commission; public lands were extracted from Jamaica parcel maps by WRC; significant undeveloped stream segments are those on Cobb, Mill, or Turkey Mountain Brook, or the West River, that are generally more than 1000 from a travelled public highway and a mile or more in length.

map by Windham Regional Commission, Brattleboro, VT
November 2024
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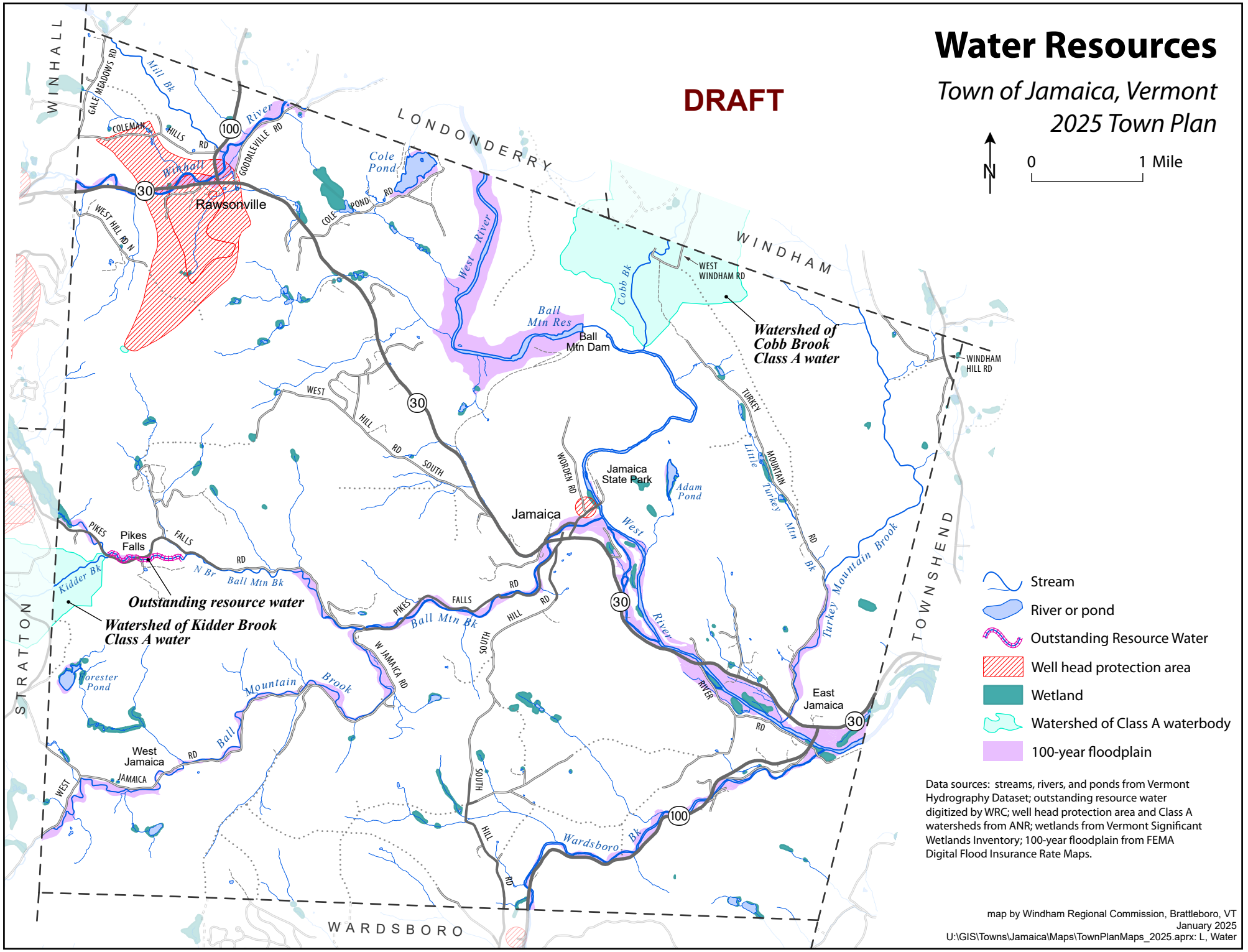
Water Resources
Town of Jamaica, Vermont
2025 Town Plan
DRAFT
N
0
1 Mile
WINHALL
LONDONDERRY
WINDHAM
STRATTON
TOWNSHEND
WARDSBORO
Rawsonville
Jamaica
Jamaica State Park
Ball Mtn Dam
Ball Mtn Res
Pikes Falls
West Jamaica
East Jamaica
Cole Pond
Adam Pond
Forester Pond
Watershed of Cobb Brook Class A water
Outstanding resource water
Watershed of Kidder Brook Class A water
Stream
River or pond
Outstanding Resource Water
Well head protection area
Wetland
Watershed of Class A waterbody
100-year floodplain
Data sources: streams, rivers, and ponds from Vermont Hydrography Dataset; outstanding resource water digitized by WRC; well head protection area and Class A watersheds from ANR; wetlands from Vermont Significant Wetlands Inventory; 100-year floodplain from FEMA Digital Flood Insurance Rate Maps.
map by Windham Regional Commission, Brattleboro, VT
January 2025
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Wildlife and Plant Resources

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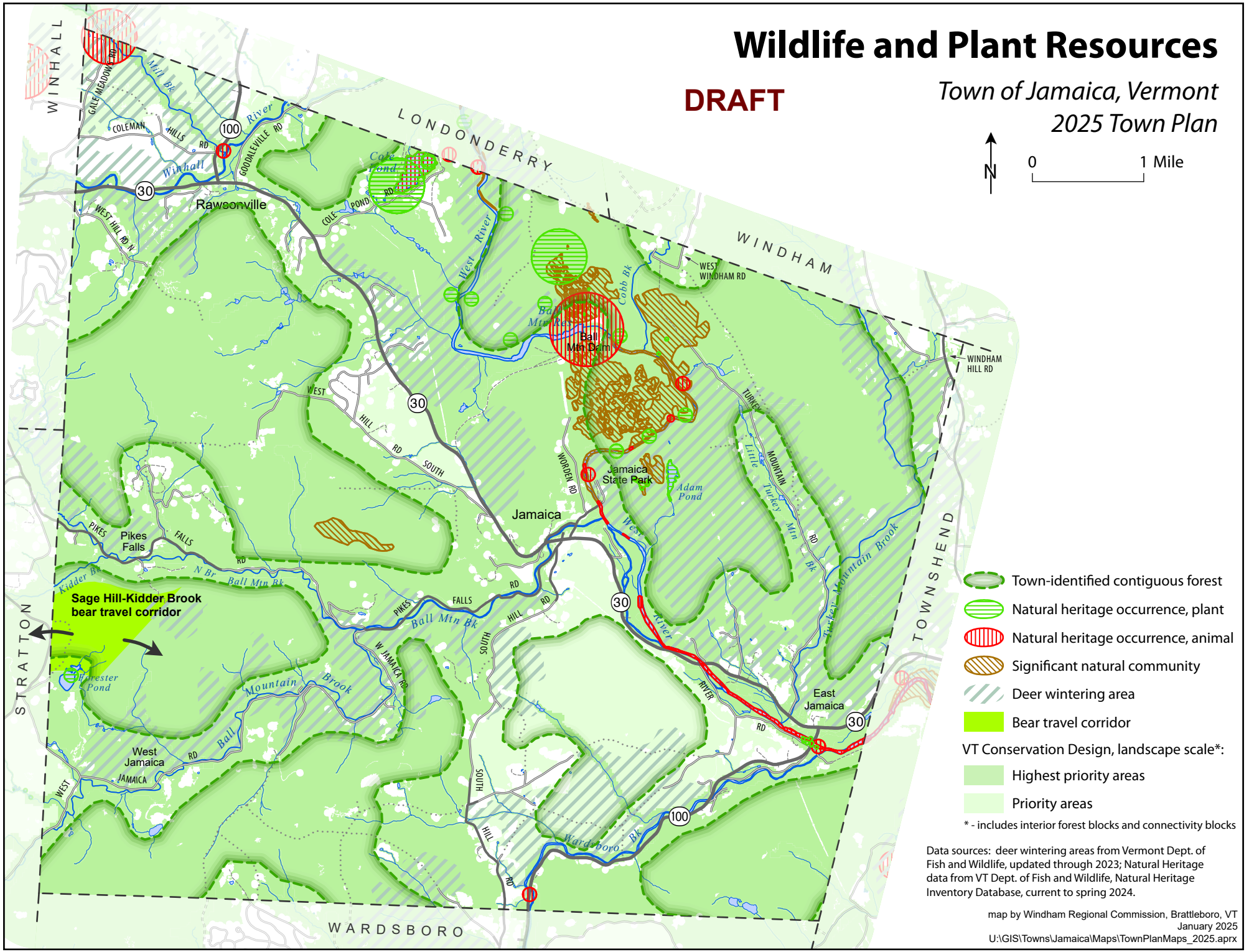
Town of Jamaica, Vermont
2025 Town Plan



Data sources: deer wintering areas from Vermont Dept. of Fish and Wildlife, updated through 2023; Natural Heritage data from VT Dept. of Fish and Wildlife, Natural Heritage Inventory Database, current to spring 2024.

map by Windham Regional Commission, Brattleboro, VT
January 2025
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Flood and Fluvial Erosion Hazard Areas

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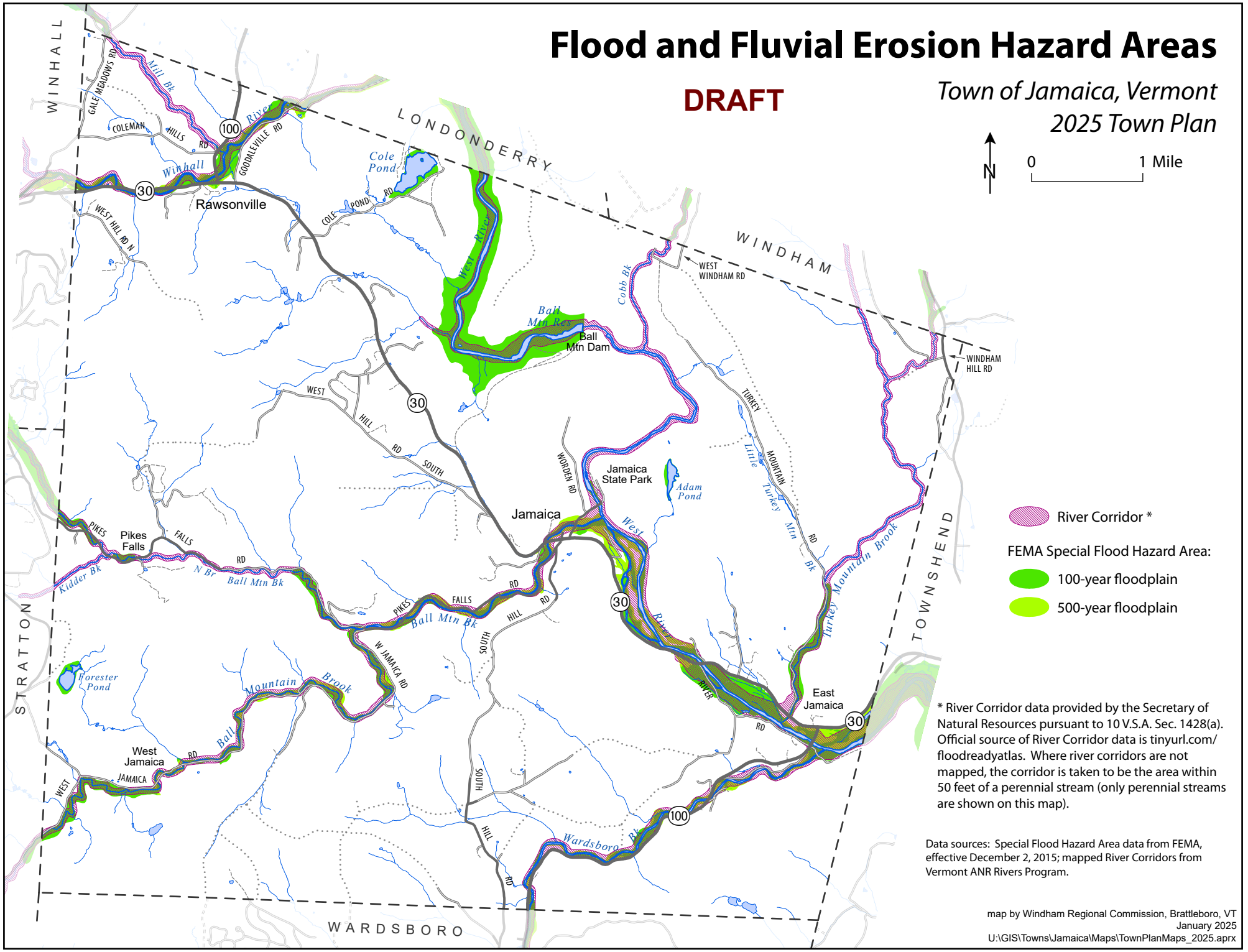
Town of Jamaica, Vermont
2025 Town Plan



* River Corridor data provided by the Secretary of Natural Resources pursuant to 10 V.S.A. Sec. 1428(a). Official source of River Corridor data is tinyurl.com/floodreadyatlas. Where river corridors are not mapped, the corridor is taken to be the area within 50 feet of a perennial stream (only perennial streams are shown on this map).

Data sources: Special Flood Hazard Area data from FEMA, effective December 2, 2015; mapped River Corridors from Vermont ANR Rivers Program.

map by Windham Regional Commission, Brattleboro, VT
January 2025
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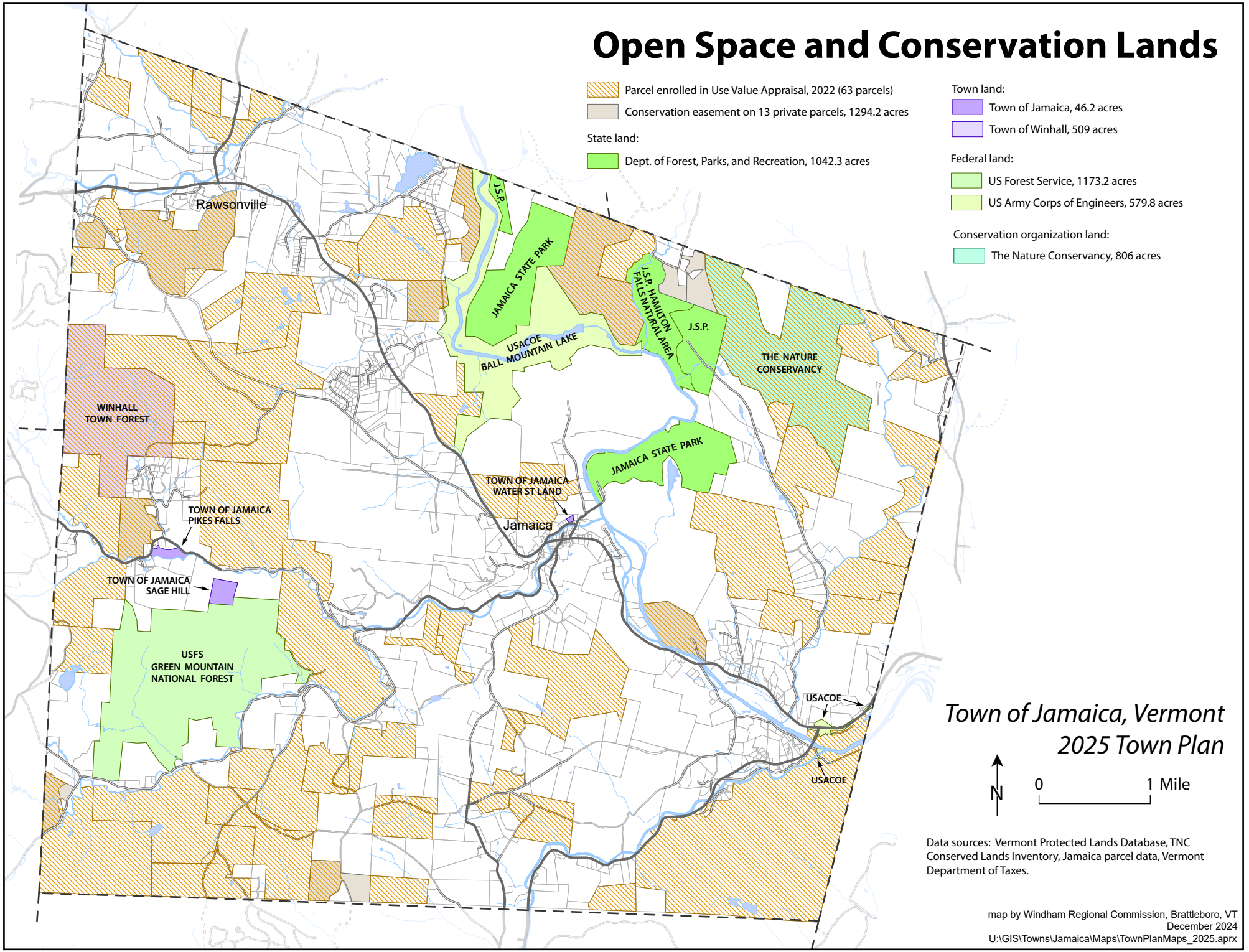
Open Space and Conservation Lands



Town of Jamaica, Vermont
2025 Town Plan

Data sources: Vermont Protected Lands Database, TNC Conserved Lands Inventory, Jamaica parcel data, Vermont Department of Taxes.

map by Windham Regional Commission, Brattleboro, VT
December 2024
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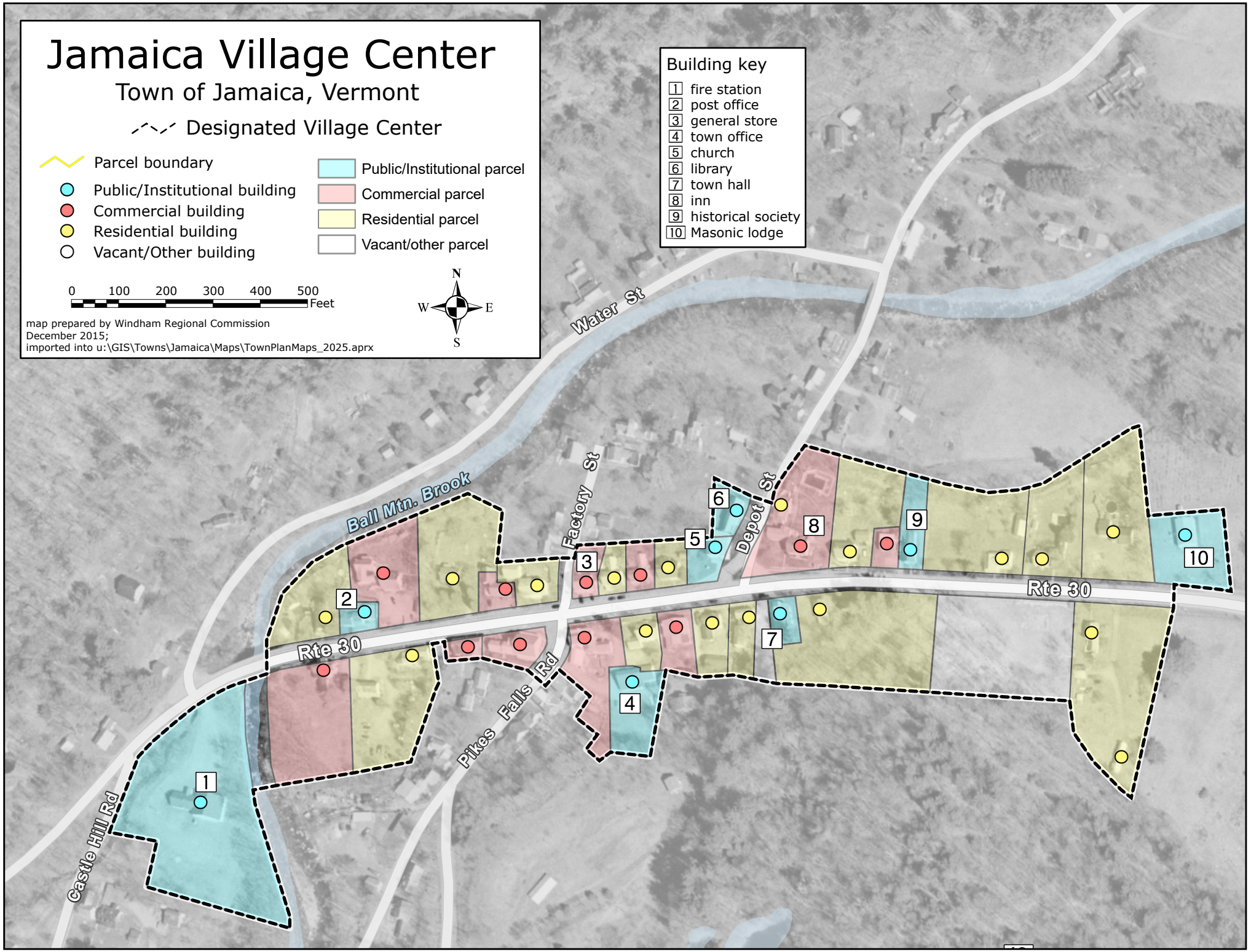
Jamaica Village Center
Town of Jamaica, Vermont
Designated Village Center
Parcel boundary
Public/Institutional building
Commercial building
Residential building
Vacant/Other building
Public/Institutional parcel
Commercial parcel
Residential parcel
Vacant/other parcel
0 100 200 300 400 500 Feet
N
W E
S
map prepared by Windham Regional Commission
December 2015;
imported into u:\GIS\Towns\Jamaica\Maps\TownPlanMaps_2025.aprx
Building key
1 fire station
2 post office
3 general store
4 town office
5 church
6 library
7 town hall
8 inn
9 historical society
10 Masonic lodge
Water St
Ball Mtn. Brook
Factory St
Depot St
Rte 30
Rte 30
Pikes Falls Rd
Castle Hill Rd
1
2
3
4
5
6
7
8
9
10