

Town of Londonderry
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Notice of Public Hearing

The Londonderry Planning Commission will hold a Public Hearing on June 26, 2017 from 5:30 to 7:00PM at the Town Office, Twitchell Building, at 100 Old School Street, So. Londonderry.

The purpose of the hearing is to hear public comment on the proposed Town Plan. The purpose of the Town Plan is to provide objectives for responsible growth and development based upon a shared vision and public commitment to preserve natural resources, historic settlement patterns, the vitality of the north and south villages and quality of life for those who choose to live here. The Town Plan is a planning tool intended to guide the decisions of municipal government and citizens.

The 2017 Town Plan update applies to all geographic areas of the town. This proposed Plan considers state requirements, current conditions and trends, known and anticipated future needs and objectives, public input from a 2016 community forum and lessons learned from the impacts of Tropical Storm Irene. The Plan contains eight sections with individual discussion, goals, policies and actions for the next eight years together with relevant maps. The Sections are listed in the Table of Contents as:

- Land Use
- Economy
- Natural Resources and Conservation
- Community Resources
- Flood Resilience
- Transportation
- Housing
- Energy

The full text and maps of the proposed Town Plan may be examined at the Town Office during regular business hours.

LONDONDERRY TOWN PLAN HEARING DRAFT MAY 2017

Prepared by Londonderry Planning Commission with planning support from Susan McMahon, Associate Director and Jeff Nugent, Senior GIS Planner of Windham Regional Commission and sponsored by a 2016 VT Department of Housing and Community Affairs Municipal Planning Grant.

Town of Londonderry

Planning Commission Reporting Form

for Municipal Plan Amendments

This report is in accordance with 24 V.S.A. §4384(c) which states:

"When considering an amendment to a plan, the planning commission shall prepare a written report on the proposal. **The report shall address the extent to which the plan, as amended, is consistent with the goals established in §4302 of this title.**

As required, a list of state planning goals follows, with reference to the sections of Londonderry's Town Plan that are consistent with each of the fourteen goals.

1. To plan development so as to maintain the historic settlement pattern of village and urban centers separated by rural countryside. This goal is effectively addressed in the Land Use section of the Plan as well as the Natural Resources and Conservation section. As a small rural town, Londonderry's settlement pattern includes 2 distinct villages with mixed civic, commercial and residential use, as well as 3 other concentrated commercial/industrial areas, all separated by primarily by undeveloped agricultural and forest lands interspersed with lower density residential development. Land use districts include higher density village districts, moderate density rural residential districts and special resource conservation overlay districts designed to protect highly valued and sensitive natural, scenic and historic resources.

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's Economy Section describes Londonderry as a market center for surrounding towns with half the residences being vacation homes, creating an economic base greater than expected for its year-round population. The Plan notes the current varied mix of business and job opportunity related to natural resources, tourism and hospitality, construction and property management, local food and artisan production, various home-based business and general services. Recreation is recognized as a popular growing industry to be emphasized and encouraged. The Plan identifies and provides for action to improve telecommunication, bike-ped friendly connectivity, water and wastewater capacity and affordable housing.

3. To broaden access to educational and vocational training opportunities sufficient to ensure the realization of the abilities of all Vermonters. The Community Resource section of the plan dealing with educational facilities discusses the town's inclusion in the newly established regional school district, as part of the Flood Brook (elementary) school, located in Londonderry, and options for attending high school. The Plan also notes the potential for greater access to educational services through improved broadband services.

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 Plan's Transportation section contains a comprehensive description of the state highways and town roads and bridges that make up our local transportation infrastructure. VT Route 100 through town is now a designated Scenic Byway. While the present road system is adequate to serve the needs of the community, there have been safety concerns at state highway intersections and along heavily travelled local roads. A lack of public parking for local public events is notable, specifically when the West River Farmers Market is in season. The community needs increased access to public transit service and designated park and ride lots. With no or very limited sidewalks in our villages, there is a growing initiative to repair existing sidewalks in poor condition. Actions focus on further developing and maintaining a system of multi-use pathways to safely facilitate bike-ped travel around town and to provide access to natural areas via the West River Trail and Class 4 Roads. The plan discusses the need to assess roads and bridges for improvements in anticipation of future flood events.

5. To identify, protect, and preserve important natural and historic features of the Vermont landscape. And

6. To maintain and improve the quality of air, water, wildlife, and land resources. Londonderry's landscape is defined by wooded hillsides, agricultural and forestland, scenic, mountain-valley vistas, undeveloped ridgelines and shore-land – the protection of which is of critical importance to residents and visitors who also appreciate the Town's clean air and water quality and fish and wildlife habitat, as well as historic architecture and settlement pattern. The Natural Resources and Conservation section and Land Use Section of the Plan include specific recommendations for ensuring protection of key resources and enduring features, which provide multiple benefits to our community.

7. To encourage the efficient use of energy and the development of renewable energy resources. The plan includes a detailed Energy section that focuses on numerous aspects of energy conservation and efficiency and describes the varied potential for local energy production, including alternative renewable energy. This section discusses the potential impacts of larger scale commercial/industrial energy generation facilities and a preference for non-commercial energy generation facilities that generally pose fewer direct and secondary impacts. The Plan also relates these topics to the town's Land Use plan: specifically discouraging large-scale project overall and prohibiting them altogether within the Resource Conservation Overlay district and on the main stem of the West River. Actions include charging the Town's Energy Committee with developing an enhanced comprehensive Energy Plan and maps to be incorporated into the Town Plan and committing to energy conservation in the operation of all town facilities, properties and vehicles.

8. To maintain and enhance recreational opportunities for Vermont residents and visitors. The plan incorporates discussion of recreational opportunities within the sections descriptions of Economy, Natural Resources, Community Resources and Transportation. It emphasizes the important values of safe bike-ped travel, establishing pathways between services and events to encourage less dependence on motorized vehicles and promote

outdoor activities. It also recognized the need to maintain and enhance public access to the Town's special places via existing trails, waterways and forestland.

9. To encourage and strengthen agricultural and forest industries. In its Natural Resources section, the Plan discusses and includes specific goals and policies related to balancing the economic, environmental and social benefits of forest and agricultural lands, as well as practices, management, protection, programs and products relative to these industries.

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. In its Natural Resource and Conservation section, the Plan includes discussion and policies related to the importance of protection and access to all local natural resources. This section also includes specific policies and actions addressing the importance of maintaining access to sand and gravel resources and proper plans for extraction and site restoration.

11. To ensure the availability of safe and affordable housing for all Vermonters. In its Housing section, the plan includes a comprehensive description of current housing stock as well as issues inherent with providing affordable housing in a town with relatively high real estate values. With a Goal of ensuring availability of housing for all residents, policies and actions include support for more flexible standards that allow increased development density, accessory dwelling units for single family residences and diverse housing opportunities, particularly for the elderly. Actions include a study of community need for low and moderate income housing, appropriate areas for residential growth and the available rental housing in town.

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

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 workforce development.

Londonderry's Plan contains an extensive description of public facilities and a plan for meeting future needs in its Community Resources section. Specific needs and goals are identified here as: effective local government, a strong sense of community, emergency preparedness; access to essential services, recreational opportunities and enrichment programs, preservation of cultural and historic resources, quality affordable education and training, a healthy and safe living environment, state of the art communication facilities of all types. This section also includes specific action to help coordinate a discussion regarding child care needs and related issues.

14. To encourage flood resilient communities. One section of the Plan provides background for the requirement of this element and specifically defines terms such as 'fluvial erosion,' river corridors vs. floodplain and 'inundation hazard areas.' Important goals and policies in the Flood Resilience section call for reducing various impacts in all flood prone areas by avoiding new development there. Specific actions include upgrades to culverts on local

roads, stabilization of local road embankments and identification of areas that could be inundated by flood waters according to Flood Insurance Rate Maps (FIRMS).

This Town Plan update alters the designation of the Village Commercial land areas. There is known risk within the existing commercial areas where significant damage and loss occurred during Tropical Storm Irene. This same area that contains most of our small businesses and community services remains vulnerable to future flood events along the West River. The Village Commercial district boundaries have been expanded to upland areas more suitable for commercial investment to replace existing commercial area that is at high risk for loss due to flood potential.

Regarding the probable impact to surrounding areas, with the overall pattern of land use unchanged by the addition of 'replacement area' to the VC district, and little to no increase in total amount of land area suitable for this use, no increase in traffic or need for public utilities is anticipated. In the long term, this change could be a benefit to the town and its tax base by providing an alternative area for commercial activity, particularly small and home business typical in Londonderry, that is more suitable for investment with less risk of flood damage and associated costs.

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INTRODUCTION

Purpose of the Town Plan

The establishment of a Town Plan is accomplished through a continuing community planning process considering the vision of its citizens, elected officials and local organizations. Londonderry's Town Plan establishes goals and objectives for responsible growth and development based upon a public commitment to preservation of natural resources, historic settlement patterns, the vitality of the north and south villages, and quality of life for those who choose to live here.

This plan serves at least two functions: First, it is a planning tool to guide decision-making by the townspeople and their municipal government, particularly the Select Board. For example, the Plan should be considered in adopting municipal budgets and it should guide the consideration and adoption of amendments to the zoning and subdivision ordinances. Second, the clearly stated, mandatory provisions of this plan are intended to be legally enforceable standards as provided by Act 250 (10 V.S.A. § 6000, *et. seq.*) and Section 248 (30 V.S.A. § 248). .

Development, Adoption and Updating

This current Town Plan builds on previous Town Plans that have been developed by Londonderry since the early 1970s. Revisions and updates of the Town Plan have been made at five-year intervals since then, in accordance the Vermont Municipal and Regional Planning and Development Act (Title 24 Vermont Statutes, Chapter 117).

This Town Plan, as with previous Town Plans, was developed by the Planning Commission with assistance from other town Boards, community organizations and individuals. The basis for the plan was determined from the results of discussions and comments of citizens during public forums held to discuss public issues that have developed since the previous Plan was adopted.

The adoption procedure for municipalities of 2,500 persons or less requires the Planning Commission to hold one or more legally warned public hearings on a proposed plan or changes therein. The Planning Commission may incorporate any changes warranted by public discussion and recommendation. After the Planning Commission develops a final plan reflecting public comments, it is forwarded to the Select Board. The Select Board then must also hold one or more warned public hearings for public comment and may make changes reflecting such public recommendations. After the last changes are warned and discussed, the Select Board may approve a Town Plan by majority vote.

Meeting Planning Goals

The Londonderry Town Plan meets the Vermont Planning Goals (Title 24, Chapter 117. Discussions of these goals in coordination with the discussions of the Town Plan Elements encompass the subjects required in the Vermont Statutes.

HISTORY

Indian relics have been found in the Mountain Valley to confirm the presence of Abenakis, at least as travelers. A prehistoric projectile point, made of block chert from Mt. Independence, 3,000 – 4,000 years old, was identified in 1988. It was found during a gardening excavation high above the valley floor. Five others, neither dated nor documented as to origin, were also reportedly found near Under Mountain Road on the west side of Glebe Mountain and are now in the Londonderry Historical Society Museum. Three areas in the Town of Londonderry have been archaeologically studied: the excavations for the new bridge across the Millpond, the Ball Mountain Dam Project, and most recently at the new bridge across Cook Brook. Nothing of archaeological significance was identified at these sites.

Colonial and Early Londonderry, 1770 – 1870

Colonel James Rogers of Londonderry, New Hampshire, received a royal grant and led the first settlers into an area called Kent between 1770 and 1772. Among these settlers were Deacon Aiken and Captain Samuel Thompson. By 1775, who held their first Town Meeting at Great Pond (Lowell Lake) where they had cleared land and established small farms. Rogers was a Tory and left town in 1777 in order to fight for the King. Kent was subsequently renamed Londonderry in 1780 by act of the new Vermont Legislature. At that time Londonderry was composed of most of Windham and Londonderry.

In 1782, the General Assembly of Vermont granted to Captain Edward Aiken and several others a tract of 930 acres adjoining the west boundary of the Town, to become part of the Town. During the 1790's it was agreed between the settlers on the two sides of Glebe Mountain to divide Londonderry into two towns with the land on the east side of the mountain becoming the separate town of Windham. Finally in 1804, the present dividing line between the two towns was established and each town was allowed to send its own representatives to the State legislature.

Early economic activities focused primarily on self-sufficient agriculture. Livestock were raised for family use; some grain and forest products were sold. Potash became the first significant cash crop. Waterpower and plentiful lumber encouraged the early establishment of mills. The first saw mill and gristmill were built in 1774. Around 1800, a small shop for iron castings and forgings was built. The population increased sharply from 1810 to 1830, as a farming and industrial base was built. A wool carding shop opened in 1812, a post office was established in 1823, tannery, harness, machine and tool shops in 1824 and a marble works in 1867.

Religious and Cultural Life of Early Londonderry

Much of the cultural, educational and social life of the community was centered in the churches. Deacon Aiken, a Presbyterian, founded a house of public worship in 1777. The first Congregational Church was founded in 1809 and held services in a building off Middletown Road. A Methodist Church built in 1840 was bought in 1868, and became the Second Congregational Church, organized in 1868 after fire destroyed the earlier building. The Methodist Church, subsequently located next to the old Town Hall, did not survive the fire and that building was destroyed. The Baptist Church, founded in Peru, moved in a split to South Londonderry in 1811,

where the church was built in 1834. Unfortunately, it was lost to a fire in 2010. In 2017 the third church to be built in the south village was completed by the Baptist Church and the community. Saint Joseph's Catholic Church maintains a chapel in the north village in building formerly known as Grover School that contained grades 1-3.

An active theater group existed during the later years of the nineteenth and the first half of the twentieth century using the stage and auditorium in the old Town Hall.

Following the Civil War, in which 66 young men enlisted, Londonderry went into decline. Mills were lost to floods and fires; farms were abandoned as the population declined.

The West River Railroad was chartered in 1867 and renamed "The Brattleboro and Whitehall Railroad Company" in 1876. In 1880 the first trains ran over the narrow gauge tracks from Brattleboro to Winhall Station and on to South Londonderry. The Railroad was seen as the salvation for the area's economic woes in the last half of the nineteenth century. As a result, the Lowell Lake Resort and Peabody House were opened in 1880. The Highland House began accepting guests about the same time. The rail line, troubled with failures and floods, was never extended to Whitehall, NY, as originally proposed. The 1927 flood destroyed many miles of track and several bridges. These were rebuilt and service resumed but with fewer passengers and less freight as the depression came to Vermont. In 1933, James G. Ashley leased the railroad and put a gas powered engine and passenger car in service. He moved his family to South Londonderry and worked very hard to maintain rail service. By 1936 it was evident that the railroad could not be viable and operations ceased. The rails and bridges were sold for scrap and the B&W RR Co. became only a memory. In 2009 the West River Trail Association purchased and renovated the historic Depot in South Londonderry for community education activities and public use. With the collaboration of many state and federal organizations more than 20 miles of reclaimed rail-trail is open for public use.

South Londonderry's Champion Fire Company acquired a hand pumper in 1881 and was incorporated in 1903. The Phoenix Fire Company, for the north village, was organized also in the early 1900's. They bought their first pumper in 1906 from the Town of Rutland.

George T. Shanks, better known as "Sifter John," established a weekly newspaper "The Londonderry Sifter" in 1883 and remained the editor until 1903. The paper was still published until the middle 1920's. Shanks was a feisty Vermonter, unafraid to take on the politicians or the railroad. An inexperienced editor, he was jailed for his explosive efforts and nearly ruined financially, but he was never silenced, nor his paper suppressed.

In 1893 an electric plan was established in the south village and in 1901 the Melendy Telephone Company began service to local residents. This set the stage for twentieth century Londonderry.

Modern Londonderry, 1900 to Present

Small businesses and industries combined with recreation, tourism and seasonal residents have sustained the Londonderry economy in this period while agriculture has been in decline. A 1912

publication lists Londonderry farm products as potatoes, hay, apples, maple sugar, syrup, livestock and dairy products. South Londonderry's West River Creamery shipped 5,000 to 6,000 pounds of butter per week.

The flood of 1927 destroyed much of the industrial base. Although Judge A.E. Cudworth described Londonderry in 1936 as primarily an agricultural town, the economy had already begun to rely on tourism. As early as 1912, the West River Valley Association urged its dwellers to purchase and restore the "cheap" abandoned farms. After Tropical Storm Irene in 2011 the State of Vermont and FEMA provided funding to buy properties that suffered repetitive flooding in the north and south villages. The town obtained five properties that will provide public use for passive outdoor recreation and enjoyment along the West River within the villages.

The region's first ski area, Bromley, was built in 1936, followed by Magic Mountain (1960) in Londonderry. While, Viking Ski Touring Center opened off Rte. 11 east in the mid 70's. By 1945, there were numerous sawmills, woodworking mills, a plastic novelty factory, inns, restaurants, arts and crafts shops and farms producing dairy and maple products. This new commercial activity contributed to town surpluses in the 1960's and 1970's, the first in many years. The significant population growth in the 1970s has been partly attributed to jobs created by new area economic activity during this decade.

Between 1964 and 1988, the Mountain Market Place was built. This 50,000 square feet shopping center has provided an opportunity for residents to meet most of their shopping needs in town. It is currently occupied by a supermarket, hardware store, bank, post office, pharmacy, assorted shops, restaurants and offices. The pioneering Cooks Garden Seed Catalogue's headquarters was located here in the late 80's.

Today the food and beverage industry and farm to table movement are integral to the local economy, represented by several restaurants, bars and delis. Local growers, caterers and specialty food producers exist as the result of the successful farmers' market incubator.

Smith's Mill started in South Londonderry in 1920 and moved to its current site in 1946. This light manufacturing facility of wood based products closed in 2002 and reopened in 2004 under new ownership. It remains the town's only light manufacturing facility of small outbuildings and sheds. Burton Snowboards were originally designed and manufactured on Main Street. Hayes Brothers Snowboards was a strong, but short lived startup company producing boards in South Londonderry. Horace Haywood's mill in Londonderry, where machine tools for lathes were made until approximately 1910, was converted to the Mill Tavern in 1966 by the present owner who operates a small museum there along with his restaurant business.

The Winhall Brook Campground is home to thousands of visitors a year. This US Army Corps of Engineers seasonal park is spectacularly located along the West River and the West River Trail.

Traditional dairy farming continues to struggle economically. Yet, the town's agricultural heritage is carried on by 3 working dairy farms (cow), an organic vegetable & berry farm and several small-

scale sheep and beef producers. The majority of food based agricultural sales in Londonderry is cheese and milk. The dairy farms all have realized value added revenue with specialty cheese production. A specialty butcher shop opened in 2011 supports local meat production. Several agro-forestry operations that produce fire wood, lumber and maple syrup. Since 1995 the seasonal Farmer's Market has become a thriving space for agriculture, food, art and community, fostering new regional businesses for over 20 years. A seasonal nursery with retail and a greenhouse operates on Rte 11 east of Londonderry.

A library was founded in South Londonderry in 1902. The Flood Brook Union School #20 opened in 1964 to serve the entire Mountain Valley. In 2012 it became the Regional Education District or the Mountain Towns RED (Londonderry, Westin, Landgrove and Peru) when Flood Brook joined the BRSU with Burr & Burton Academy in Manchester. The West River Montessori School was founded in 1986. Restoring and creating a school in the barn on rte 100 in S. Londonderry. They continue to provide early childhood education and toddler care to the entire community. The Londonderry Historical Society was founded in 1971. The Historical Society houses its collection and holds exhibits in the Bernadine Custer Sharp House (Circa 1840) and Middletown Schoolhouse on Middletown Road. The renovated buildings additionally serve as an arts and cultural center for the community. The Historical Society was instrumental in gaining recognition of South Londonderry, as a National Historic District in 1986; 79 buildings are included. There are probably an equal number of other buildings of historical interest that have not been inventoried.

The Mountain Valley Medical Clinic was established in 1976 and serves Londonderry and the surrounding communities. The Clinic maintains a medical staff, support staff and now, as a satellite of Springfield Hospital, hosts various specialty services for access to complete services.

References:

The South Londonderry Free Library

The Londonderry Historical Society

The West River Farmers' Market

Cudworth, A. E., The History with Genealogical Sketches of Londonderry, Vermont Historical Society, 1936

Child, H., Gazetteer and Business Directory of Windham County 1884. p 238–248

Wiley, E. D., Doings in Derry, Academy Books, 1992.

LAND USE

Londonderry residents and property owners have overwhelmingly stated a desire that the Town maintain its rural character while seeking to develop additional and better paying employment opportunities. To this end, the Town's Land Use Goals, Plan and Regulations should seek the best possible approaches to provide for responsible economic health while maintaining the rural character of the Town. **Maintaining rural character includes preserving farmlands, woodlands, undeveloped open space, natural stream banks and lake/pond shorelines, and ridgelines together with supporting land-based and outdoor activities and concentrating growth.**

A continuous effort needs to be made to obtain as much information as possible about the Town's land and its capabilities in order to better assess how current or potential growth and trends might affect the rural character of the Town. This information will enable the Town to optimize land use with its different geographic and demographic characteristics.

Land Use Plan

Maps indicating present and prospective land use areas are found at the end of this plan. These maps are for planning purposes only, although they serve as the foundation for the town's zoning bylaws.

Present Land use

Geography, state land use regulations, historical settlement patterns and commercial enterprises have driven land use patterns in Londonderry. The confluence of the West River and major east-west and north-south roadways resulted in the development of the north and south villages. The demise of rail transportation in 1935 and the emergence of tourism, the ski industry and second home ownership have resulted in the north village becoming the predominant commercial area. Both villages have extensive residential development as well. Other commercial areas (which include industry as well) are located around the Magic Mountain Ski Area on Route 11, the relatively small Hearthstone district on Route 100 between the two villages and the Derrytown district on Route 100, about a mile south of the south village.

Residential areas and residences are interspersed among the five commercial areas, along with farms, forests and open space. Approximately 80% of the Towns' land is forested (source: WRC/VGIS). Residential land use is categorized into three densities based on historical development and the character of the land with higher density in and around the villages and major roadways. Lesser densities are in the outlying areas and shore lands. Agricultural uses, including maple sugaring and forestry are widely dispersed throughout the Town.

In Vermont, many towns have several traditional town centers within their boundaries. Within Londonderry, the North Village and the South Village, as well as Magic Mountain Village contain the town's concentrated commercial development. In the future, growth should continue to be directed toward these established centers.

The villages are similar to downtowns, but occur at a scale that reflects the economy and population of the town that is served. They are communities. They are historic centers and are a cohesive core where housing, shopping, and jobs are located within close proximity, allowing residents to live near where they work. The pattern of development in these centers is often multi-story, mixed use, and compact.

The mix of uses that defines villages like Londonderry typically includes a wide variety including residential, commercial, business, and civic uses, occurring in contiguous fashion, rather than distinctly separate, within a compact area. Some industrial uses may also be appropriate within traditional town centers.

Located within the West River floodplain, Londonderry's villages have been repeatedly impacted by floods. In August 2011, the Town of Londonderry sustained significant damages to structures and infrastructure during Tropical Storm Irene. Floodwaters from the West River and Utley Brook suddenly and swiftly inundated Main Street and numerous structures in Londonderry's two historic villages.

The devastation from the flooding has disrupted the historic settlement pattern in the villages in a couple of ways. In both villages, properties that sustained significant damaged were purchased and demolished, resulting in vacant lots where buildings once stood. Second, parts of each village are located in the floodway and special flood hazard areas, limiting potential redevelopment.

Prospective Land Use

The primary objective and challenge of Londonderry's land use plan is to retain its rural character and compact villages while providing an appropriate economic and employment base for its citizens. The Town should direct commercial development in the designated commercial areas, retaining large open spaces and agricultural uses between the commercial areas as well as open spaces among residential development. Additionally, Londonderry's land use plan must provide for a sustainable forestry base, recreational opportunities, public and quasi-public facilities, as well as recognize the need to provide space for and protect flood plains, wetlands, ridgelines, and conservation and fragile areas.

Londonderry's land use area designations are described as follows and shown on attached maps:

- Commercial areas are those locations where retail stores, light industry, warehousing, restaurants, hotels/motels, service stations, ski areas, etc. are planned for and permitted.
- Residential areas are those locations for which residential activity is desired and planned for in low, moderate and high levels of density.
- Conservation and Resource overlay areas are those locations which are environmentally fragile and aesthetically sensitive, and/or areas that contain natural resources such as forests that should be protected for long-term sustainable use. These areas include land characterized by steep slopes and prominent ridgelines - particularly high elevation land on

Glebe Mountain and adjacent ridgelines, flood hazard areas, riparian areas, wetlands and shoreland.

- Shoreland areas are those locations around Lowell Lake, Lily Pond and Gale Meadows Pond. These areas are fragile and require significant set-backs from the water and waterways to protect the environment. Uses should be of minimal intensity.
- Flood Hazard areas are overlay zones. They are found in most designated areas and should be reserved for such activities as agricultural and recreation that will not impede the safe flow of floodwater away from settled areas.
- Agricultural and Forestry activities are encouraged in all residential districts. These activities do not have a specific zoning designation. Most are located in the rural residential areas.

The Prospective Land Use plan includes nine land use districts intended to accommodate activities appropriate to the areas described above. The specific purposes of these subset districts, including two overlays, are as described as follows:

Residential & Rural Districts

- **Village Residential (R-H).** The purpose of Village Residential district(s) is to provide for high-density residential development in and around the Town's village centers in a manner that maintains and enhances the traditional village pattern, pedestrian scale and historic character of these areas.
- **Rural Residential-1 (R-M).** The purpose of Rural Residential-1 district(s) is to provide for moderate density residential development and compatible land uses in areas with convenient access to public roads, municipal services and commercial centers, while preventing commercial strip development along major highways and maintaining the rural character of the community.
- **Rural Residential-3 (R-L)** The purpose of Rural Residential-3 district(s) is to provide for agriculture, forestry, low-density residential development and other compatible land uses in a manner that maintains the Town's rural character, scenic landscape and natural resources. Development shall take into account habitat connectivity with adjoining parcels, with the goal of forming unfragmented, contiguous habitat corridors within the town. The appropriate model for development within the Rural Residential 3 area is **conservation subdivisions**. Under this model, the footprint of developed land, which would include homes and other structures, roadways, sidewalks, and wastewater management areas, would be minimized and concentrated in a manner that preserves natural, cultural and aesthetic resources and conserves the vast majority of the land within the parcel or parcels being developed. This method would allow the same number of dwelling units as would typically be allowed in this land use area while minimizing habitat fragmentation.

Commercial Districts

- **Village Commercial (VC)** The purpose of Village Commercial district(s) is to provide for a mix of commercial and residential uses at high densities in the Town's traditional village centers

in a manner that promotes pedestrian circulation and maintains and enhances the Town's traditional settlement pattern of compact village surrounded by rural countryside.

- **Service Commercial (SC)** The purpose of Service Commercial District(s) is to provide for relatively large scale commercial and industrial uses in a manner that minimizes the potential for adverse impacts on local roads, neighboring properties or the Town's rural character.
- **Recreation Commercial (RC)** The purpose of Recreation Commercial district(s) to provide for a mix of residential, commercial and lodging uses concentrated near the base of Magic Mountain Ski Area to support the viability of the Town's tourist-recreation industry.

Resource Conservation

- **Resource Conservation (RC) Overlay** The purpose of Resource Conservation Overlay district(s) is to protect significant forest and scenic resources, sensitive headwater streams and wildlife habitat at higher elevations and to prevent development on ridgelines, steep slopes, and shallow soils and in areas with poor access to public roads, municipal services and commercial centers. In addition, the RC overlay shall not allow further development beyond forestry and passive recreation.
- **Shoreland (S)** The purpose of Shoreland district(s) is to maintain the scenic, ecological and recreation resources associated with the Town's lakes and ponds; preserve water quality and protect wildlife habitat; and preserve shore cover and natural vegetation through the careful control of the location, design and intensity of residential development and associated activities.
- **Flood Hazard (Fld) Overlay** The purpose of Flood Hazard Overlay district(s) is to promote the public health, safety and general welfare, to prevent increases in flooding caused by the uncontrolled development of lands in flood hazard areas and to minimize losses due to floods by:
 - a. Restricting or prohibiting uses that are dangerous to health, safety or property in times of flood or cause excessive increase in flood heights or velocities;
 - b. Requiring that uses vulnerable to floods, including public facilities that serve such uses, shall be protected against flood damage at the time of initial construction and
 - c. Ensuring continued eligibility for landowners in the National Flood Insurance Program.

Land Use Implementation

Londonderry and South Londonderry Designated Village Centers were first awarded in 2014 and due for renewal in 2019. The boundaries for these centers are shown on the Existing Land Use map in the **MAPS** section of this Plan. This State designation offers financial assistance to landowners of income-producing buildings through tax credits for historic structures, façade improvements, and code improvements. Additionally, this designation gives the town priority consideration in several Vermont grant programs.

Londonderry Village

Village revitalization efforts have focused on community and economic development, water and waste water infrastructure, improving bicycle and pedestrian safety and development of a park. In 2014, Windham Regional Commission and Brattleboro Development Credit Corporation staff, as part of an Economic Development Administration disaster recovery grant, met with the town to discuss opportunities for village revitalization. In response the town received assistance with [reuse planning](#) for two village properties that sustained significant damaged from Tropical Storm Irene. With town ownership complete, demolition of buildings on the site is underway and a public reuse plan is being implemented, possibly including siting of a [sculpture](#) honoring the town's Burton Snowboard history. There are several income producing buildings in Londonderry Village eligible for tax credits if and when redevelopment opportunities arise.

South Londonderry Village

Village revitalization efforts have focused on community and economic development, water and waste water infrastructure, and improving bicycle and pedestrian safety. Tropical Storm Irene buyouts are resulting in additional green space being developed. The Village is also the northern terminus for the West River Trail and a trail head previously developed and owned by Friends of the West River Trail. There are several income producing buildings in Londonderry Village eligible for tax credits if and when redevelopment opportunities arise.

Village center designations achieved the following goals:

- Furthering the intent of the Land Use Chapter – Londonderry and Southern Londonderry are important historic mixed-use districts. The Town Plan identifies the need to make public and private physical improvements in these areas. Continued designation will focus additional resources to help these areas thrive.
- Preserving significant historic, architectural, and cultural heritage – The access to historic tax credits and code improvement tax credits will support redevelopment of older and historic properties, preserving the historic character of these Designated Village Centers.

Goals, Policies, and Actions

Goal 1: To promote a compact villages surrounded by rural countryside.

Policies

- 1.1. Encourage land use that is consistent with the maintenance of the Town's rural character and historic settlement patterns.
- 1.2. Direct land use development, both commercial and residential, to preserve large open spaces and prevent strip development between villages.
- 1.3. Designate and limit additional commercial and industrial locations to those areas immediately adjacent to commercial areas in village centers.

- 1.4. Encourage and support density bonus incentives for clustered and conservation development, both commercial and residential, to enhance preservation of open space and the traditional sense of community.
- 1.5. Assess possible impacts of current or potential growth on the rural character of the Town.
- 1.6. Encourage continuous effort to obtain as much information as possible about the land and its capabilities.
- 1.7. Understand the status of wastewater disposal in villages in order to adequately identify and plan for current and future capacity and needs.
- 1.8. Continue to employ the land use districts designations in order to retain the Town's rural character and natural beauty.
- 1.9. Continue to support traditional land uses (e.g., forestry, farming, and recreation) within conservation and resource protection areas, and ensure that development does not diminish the scenic and ecological values associated with these areas.
- 1.10. Prohibit new commercial land uses and large scale and/or moderate to high-density development, including energy generation facilities of any size, in the three resource conservation districts and on other land characterized by one or more fragile natural features (e.g., critical wildlife habitat, wetlands, riparian buffers, steep slopes and ridgelines).
- 1.11. Support the continued operation of Magic Mountain Ski Area as a commercial enterprise is encouraged within its existing trail and lift configuration. Any expansion of those facilities shall be carefully reviewed to prevent adverse impacts on identified resources.
- 1.12. Site all land development, excluding outdoor recreation, forest management and agriculture, shall be sited to avoid critical resource areas, including wetlands, floodplains, and significant ridgelines including Glebe Mountain.
- 1.13. Require illumination of structures and exterior areas only at levels necessary to ensure safety and security of persons and property. Require arrangement of all exterior lighting so that the light source (lamp) is not directly visible from public roads, adjacent residences or distant vantage points. Require shielding of exterior lighting so that the light does not project above the lamp. Prohibit exterior area illumination of regionally prominent physical features and landscapes.

Actions

- 1.1. Study local geographic and demographic characteristics and match these characteristics with the most compatible land uses.
- 1.2. Review and revise minimum lot sizes and building coverage in villages to concentrate development where environmentally feasible. Identify the potential impact of approved septic alternatives on building/population density.

- 1.3. Conduct a study using current land use practices to determine whether existing standards will achieve desired future settlement patterns and review current land use designations based upon the results of that study.
- 1.4. Conduct a water and wastewater capacity study to determine the need for, and feasibility of, developing such facilities to serve villages and support privately shared water and waste water facilities as feasible.
- 1.5. Maintain village center designation for Londonderry and South Londonderry.
- 1.6. Continue to review the existing boundaries of the Resource Conservation Overlay District relative to identified natural resources and fragile features and expand the boundaries as deemed necessary to protect such features.
- 1.7. Continue to coordinate activities with the Conservation Commission to designate conservation and resource areas. Such areas would include higher elevations with fragile features and critical resources, such as forest and recreation, which are not suitable for development.
- 1.8. Participate actively in state regulatory proceedings, including Act 250 and Section 248 hearings (Public Service Board), to ensure that the policies of this plan, including those related to land use, natural resource protection, housing and energy, receive adequate consideration and are accurately interpreted by the applicable review body.

ECONOMY

Present Economic Conditions

Londonderry is a relatively small town with steady population growth over the last two decades. The economic base, however, is greater than might be expected, as it is a market center for surrounding towns and about half of the residences are vacation homes. On holidays and weekends, the population sometimes doubles. The primary residential population (year round residents) continues to increase.

The Londonderry economy today is largely sustained by natural resource industries, the construction trade, property management and tourism-related services including hospitality and retail, represented by : inns/motels, restaurants, retail stores, manufacturing operations, automobile service establishments, one large grocery store as well as mini-marts, a bakery working dairy farms, specialty cheese operations, an organic produce farm, artisans of all types, several maple syrup and beef raising operations, construction companies as well as many self-employed contractors, a power equipment sales and rental center, a medical clinic, a credit union, a bank, fitness centers, a veterinary clinic, a pharmacy, legal services, real estate sales and rentals, computer technicians, loggers, and various home industries providing a variety of services and products to residents and visitors.

Magic Mountain Ski Area offers a good mix of challenging and recreational skiing terrain and has an excellent teaching slope. It is expected that Magic will continue to fill a sustainable niche in the Southern Vermont ski industry. The existing Viking Cross Country Skiing Center, the Catamount Trail and other locations in Town offering Nordic ski opportunities also contribute to a vibrant recreational economy.

Lowell Lake State Park (day use only) and Winhall Brook Campground, federally owned and managed, provide public access for swimming, boating, biking and overnight camping. Completion of improvements to the West River Trail along the historic railroad bed from the South Village to Ball Mountain Dam and Jamaica State Park adds more options for public recreation in summer and winter. Renovation of the old South Londonderry Depot of the West River Railroad in 2005-06 as a visitor center and gathering place for educational and cultural programming enhances the experience of southern Vermont visitors and the economic health of the local and regional community.

Continued emphasis on sustainable forestry practices will be necessary to maintain an adequate supply of raw materials. Enrollment in Vermont's Current Use Program is resulting in improved management for more forested acres in Londonderry and helping to ensure a good supply of quality timber for the future. However, the development of value-added products, in addition to logs and boards, will be important for increased revenue and employment within the forest industry. However, most of those involved in the forest products industry agree that a lack of markets continues to plague the health of the industry. The Town should continue to encourage local and regional uses for wood, including for fuel and value added products.

The median household income for Londonderry reported in the 2010- 2014 American Community Survey (ACS) was \$49,967 which is on par with Windham County (\$50,526), but below the State of Vermont's median (\$54,477). During that same time period the ACS estimated that 9.3 percent of all households earned less than \$15,000.00, 3.5 percent received public assistance, 42 percent received Social Security and 5.9 percent fell below the poverty level. In 2014 Londonderry's average annual wage was \$35,929 while in Windham County (\$40,059) and the State of Vermont (\$43,017) the average was higher¹. In 2014, the Livable wage for the State of Vermont was \$13.00 an hour²

Londonderry's economy has not really recovered from Tropical Storm Irene with several businesses failing since the last town plan. Economic development is restricted by the lack of high speed reliable internet, the high cost of flood insurance especially for village properties, and the lack of pedestrian friendly roads. In the villages there is a lack of parking, wastewater capacity and too many empty buildings - some among the oldest in town at risk of being lost forever. Lastly, the lack of affordable housing for young professional families and quality job opportunities discourage young families from settling in the town.

Desired Economic Growth

The Town should welcome businesses that provide satisfying work with competitive pay - jobs that are not just seasonal, at wages that enable people to afford to live in the community where they work. Londonderry residents favor economic development suitable to its fragile mountain valley environment and which capitalizes on its diverse population, educational and economic base. Accordingly, the Town should strive to support and attract businesses that can use modern technology and communications for their commerce without damaging our scenic and sensitive environment. Similarly, the community should support and improve its service, educational and cultural infrastructure so that Londonderry continues to be a fine place to live, raise families, secure rewarding employment and enjoy local recreational and cultural opportunities.

Desired small and medium sized cottage industries include a brick and mortar Farmer's Market and specialty artisan manufacturing augmenting available raw materials such as furniture, cabinets, glass making, pottery, or lighting fixtures. Additional businesses that capitalize on the existing ski industry, but are not solely dependent on the seasonal nature of the industry for year round viability, would complement the current economy. Currently, small scale professional companies such as foresters, auto repair, plumbers, electricians, carpenters are very busy and the community could use more of this type of business. One of the villages would benefit from a General Store featuring necessary items. Other economic development opportunities might surface from expanded recreation such as the development of a town wide trail system, bowling lanes, skating rink, movie theatre, dance hall, community center, or conference center.

¹ Vermont Department of Labor, Covered Employment

² This is the average of the urban and rural rate for Two Adults with No Children, Vermont *Legislative Joint Fiscal Office*.

Areas for potential economic development include the expanded Village Designated Area especially near both Brown's and the Hearthstone Inn, the Frogs Leap Inn property, Magic Mountain area, former Smiths Mill along Winhall Brook Road and near the Hearthstone complex. The proposed Burton Board Sculpture project offers a great new incentive to visit the town. Finally, developing and supporting a diverse group of artisans would expand upon the diversity of reasons to come to town.

Goals, Policies, and Actions

Goal 1: To support and promote the town's current economic base to retain existing employment opportunities and increase availability of good quality employment opportunities while maintaining the rural character of Londonderry.

Policies

- 1.1. Seek business and employment opportunities that provide a livable wage and quality work.
- 1.2. Support the educational and cultural infrastructure of Londonderry.
- 1.3. Require that commercial development be oriented toward positive community growth, favoring businesses that consider, respect and respond to identified community values.
- 1.4. Seek creative commercial development compatible with the rural and scenic character, as well as the overall scale, of the Town.
- 1.5. Encourage the adaptive reuse of buildings for commercial and residential development. Support the financial and technical resources available at local, regional, state and federal levels.
- 1.6. Maintain high environmental standards for existing and new commercial, governmental and residential development.
- 1.7. Seek community support services that are sensitive to and consistent with environmental goals and community values.
- 1.8. Encourage local and regional uses for wood, including for fuel and value added products.

Actions

- 1.1. Create an economic task force for that would be responsible for promoting the creation of a Chamber of Commerce, marketing the town, and doing an inventory of current business.
- 1.2. Develop a plan to help individual business to afford flood insurance.
- 1.3. Create specific development standards for Village Centers, including parking, signage, lighting, water supply and wastewater.
- 1.4. Provide information about tax credits for development and redevelopment in Village Centers.

NATURAL RESOURCES AND CONSERVATION

The Town of Londonderry has a wide variety of natural resources. The Town's clean air and water and pleasing mountain and valley vistas are recognized as critically important resources. Indeed, the Town's landscape is defined by wooded hillsides and undeveloped ridgelines and shore land. The welfare of the Town depends on protecting such resources, particularly on such prominent hillsides as Glebe Mountain, that attract so many residents and visitors.

Air Quality

Vermont's climate is dominated in winter months by cold, dry Canadian air and in summer by warm moist air from the south. Weather patterns vary locally with topography and relief. Located in a high mountain-valley east of the main range of the Green Mountains, Londonderry experiences slightly lower average winter temperatures and higher rates of precipitation than other parts of Vermont. Much attention has been given to global climate change in recent years. Londonderry should anticipate that a changing climate might bring dramatic social, economic, and environmental change.

Londonderry enjoys exceptional air quality. The town lies within a Class II "attainment" or "clean air" region as defined by Vermont's Air Quality Implementation Plan. Moderate changes in existing air quality are permissible, although a maximum level of pollution cannot be exceeded in accordance with Vermont's Air Pollution Control Regulations.

Given the absence of large-scale pollution generators in the community, local air quality concerns are limited mainly to emissions from traffic, especially traffic congestion and associated idling at busy intersections, back yard burning of trash, heating systems (e.g. woodstoves and outdoor furnaces) and some agricultural practices.

Water Resources

Londonderry is built along the main stem of the West River and its major tributaries. The Town's water resources include the West River, the Winhall River, Lowell Lake, Lily Pond and Gale Meadows Pond, as well as various wetlands and floodplains. These waters are all included in the West River Watershed. The West River – which drains into the Connecticut River and on into the Atlantic Ocean near Long Island Sound –has been identified as a nationally important fish and wildlife habitat primarily due to the potential for Atlantic salmon restoration.

Because of the town's close association with the water resources listed above, planning for high water quality is a priority. Healthy waterways not only mean high quality drinking water, but increased habitat for aquatic biota and fish, safe recreation, high aesthetic standards, a draw for tourists, increased flood resiliency, and safer, better roads as a result. Londonderry will look to foster clean, healthy waterways. Their protection will require at least the enforcement of accepted standards for the construction, location and use of in-ground septic systems. The Town has no septic regulations at present. State water pollution standards have expanded state jurisdiction over the construction of most new septic systems. Londonderry has many older in-ground septic systems at risk for failure which can contribute to contamination of waterways.

Londonderry can participate in monitoring local water resources and provide information and support to landowners with failed septic systems that may be contributing to pollution and are in need of repair or replacement.

Additionally the Town recognizes the need to manage and reduce the adverse effects of storm water runoff so as to reduce stream channel instability, pollution, siltation, sedimentation and flooding. All of these factors can have an adverse impact on the water and land resources of the Town.

Surface Waters

Surface Waters – Surface waters include rivers, permanent and intermittent streams, lakes, ponds, vernal pools, and wetlands, often determining both the location and form of development. These waters are an abundant and valuable resource providing habitat, recreation, drinking water and irrigation, aquifer recharge, hydroelectric generation, and scenic enjoyment. Surface waters are subject to degradation from a variety of sources, including the loss of riparian buffers, failed or inadequate septic systems, storm water runoff from parking lots, roads and other types of development, and erosion from land clearing and development activities, especially on steep slopes.

Shoreland

The lands adjacent to surface waters (along Lowell Lake, Lily Pond and Gale Meadow Pond) are important for maintaining water quality, providing wildlife habitat and protecting important scenic views from the water. Vegetative buffers are necessary to reduce soil erosion and siltation. Shorelands are highly vulnerable to excessive and poorly planned development.

Flood Plains

Certain areas are subject to periodic flooding and are identified on the Flood Insurance Rate Map (FIRM) and defined as being within the 100-year flood elevation.

Riparian Buffers

Riparian buffers are defined as the strip of land bordering a body of surface water, whether still or flowing. A vegetated buffer is meant, at a minimum, to provide a protective strip between a body of water and any adjacent land that has undergone human transformation to farmland, roadway, or other type of development and, at an optimum, to contribute to the well-being of the biota both in and adjacent to the body of water as well as to stabilize banks from eroding away and slowing waters during high flow times.

Wetlands

Wetlands are defined as those areas that are inundated by surface or ground water sufficient to support vegetation and/or aquatic life that depend on saturated or seasonally saturated areas for growth and reproduction. Such areas include marshes, swamps, potholes, sloughs, river and lake overflows, mud flats, bogs and ponds. Wetlands benefits include fish and wildlife habitat, flood and erosion protection, pollution filtration, ground water recharge, and sites for education,

recreation and scenic enjoyment. Wetlands are shown on the Vermont Wetlands Inventory, but accuracy for local conditions should be reviewed on an individual case basis.

Groundwater

Groundwater provides 100% of the potable water for homes and businesses in Londonderry through a combination of private wells and springs and several small community well systems. Groundwater helps to maintain water levels in local rivers and streams. Groundwater is susceptible to degradation from a variety of land uses, including poorly designed or failed septic systems, leaking underground gasoline tanks, and the spreading – either intentionally or by accident – of various chemicals and hazardous materials on the ground.

State sewage disposal regulations require that in-ground septic systems be set back a minimum distance (i.e. isolation distance) from individual wells, and community water supply systems are required by the state and federal governments to identify the Source Protection Area (SPA) within which land uses posing threats to the water supply should be managed or avoided.

Soils

Much of the commercial and non-commercial agriculture that exists in town today occurs on open land characterized as primary agricultural soils. Primary agricultural soils are a finite resource. Once converted to other uses, they are rarely returned to production. They sustain and enhance local capacity for food production, and support existing and future farming operations.

Minerals and Earth Resources

With the exception of sand and gravel operations, industry utilizing mineral resources has steadily declined in the region. As the Region grows, however, sand and gravel deposits will continue to be extracted for construction, fill, erosion control, and highway maintenance.

Enduring Features and Special Natural Areas

The rural character of Londonderry is composed of a scenic natural landscape with traditional New England settlement patterns and architectural designs that are of critical importance to the community's identity. Such areas in town include land at higher elevations on Glebe Mountain and Cobble Hill which are included in the Resource Conservation Overlay District. The subdivision of land in these areas, and/or the extension of roads, driveways and public utilities, could greatly undermine many of the forest resource values that are important to the community. For these reasons, it is vital to maintain sound forestry practices and minimize the impacts of new development. If Londonderry does not protect such vistas, wooded hillsides and undeveloped ridgelines, property values in the Town will decline, harming current landowners and so the Town's tax base, and well-paying jobs serving the needs of residents and visitors will be lost as those people are attracted elsewhere.

The natural landscape includes open space, working and non-working agricultural lands, managed and unmanaged forest land, as well as Glebe Mountain, Cobble Hill, and other

surrounding ridgelines. The Glebe Mountain ridgeline, which defines the eastern boundary of the town, is not only the Town's paramount scenic resource, but also has regional significance. Given Glebe's geomorphic characteristics that provide near and distant scenic views throughout the mountain valley region, development on the ridgeline would irrevocably alter a highly visible, highly valued, and highly visited landscape. Consequently, the Glebe Mountain ridgeline is included in the Resource Conservation Overlay District so as to carefully control development and prohibit all commercial activities other than forest management, recreation and the continued operation of Magic Mountain Ski Area.

Londonderry's dams and waterways, long and short-range views, scenic roadways and scenic corridors also contribute to the rural character of the community. Boynton, Hell's Peak, Mansfield, Middletown, Reilly, Under Mountain, and Winhall Hollow Roads are Town-designated Scenic Roads while Vermont Routes 11 and 100 are State-designated Scenic Corridors. These scenic and historic resources are indicated on the maps at the end of this Plan.

The Town recognizes the irreplaceable value of all these resources and the need to protect them as they serve to preserve local heritage, while enhancing the rural environment, economy, and way of life for citizens and visitors. While revered by many, the Williams Dam, rated by the State of Vermont as being in 'very poor condition,' should continue to be monitored for its efficiency and potential impacts during high water events.

Nongame and Natural Heritage

Vermont Fish and Wildlife Department's Nongame and Natural Heritage Program track rare plants and animals and exemplary natural communities. Using a ranking system, the inventory assesses the rarity of species on a global and statewide level. There are twelve plant occurrences listed as species of special concern. The Town recognizes the need for education and support to actively protect and promote plants for pollinators on public and private land. There is also concern about the presence and potential impact of various invasive species.

Fish and Wildlife

Londonderry has a variety of fish and wildlife resources. Upland habitats including forested areas that provide cover and habitat for deer, bear, game birds, small mammals and other species are abundant. Large tracts of unfragmented forest land – which is critical to several species, including moose, black bear, bobcat and several species of migratory songbirds – is being lost to land subdivision and development throughout Vermont. Local forests and water resources provide quality habitat to a range of species. Wildlife that may be found in Londonderry includes deer, bear, moose, bobcat, fisher, turkey, duck, geese, blue heron, ruffed grouse, woodcock, loon, eagle, otter, beaver, bass, trout, pickerel, fishers, and others. In addition, wildlife travel corridors – undeveloped forested areas connecting large tracts of quality habitat – are particularly susceptible to being lost to development.

Deeryards are a particular forest-habitat that provides an important winter shelter area for deer. These are composed of coniferous forest on predominately south or west facing slopes, typically below elevations of 2,000 feet MSL. Not only are such areas critical to deer, but nearly half (169

species) of Vermont’s vertebrate wildlife species rely on coniferous forests for at least part of their life needs.

Water habitats such as Lowell Lake, Gale Meadows, Lily Pond and the West River support bass, trout and other fish life and are attractive to a variety of migratory waterfowl. Undeveloped shore land habitats support amphibians, reptiles, birds, mammals and rare vegetation. Wetland habitats that support songbirds, game birds, beaver and otter are important for a great variety of species as well as for breeding. Housing construction and industrial and commercial development can severely diminish the ability of the habitat to support wildlife populations, as do invasive flora and fauna.

Forest Resources

Significant timber resources exist in town, including hard and soft wood stands and sugar maple groves. It is estimated that more than 80% of Londonderry is forested (VTGIS data source). The headwaters of the major streams and rivers are heavily buffered by forestland, preserving soils, and water purity at the source. Forestry plays a major role in the ecological, economic, and social health of the area. Forestland provides habitat for wildlife, contributes to water and air quality, provides for a forestry industry and enhances recreation and tourism.

Steady population growth and second home development have increased pressure on local forestland. Large contiguous tracts of undeveloped forest are especially important for wildlife habitat, and for avoiding conflicts between traditional forest uses (e.g., forest management, hunting) and residential development.

Agricultural

Londonderry’s landscape retains important vestiges of the town’s agricultural heritage. Working farmland not only provides a source of local food and fiber, but also helps define the town’s scenic landscape, in itself an important economic asset.

Agriculture plays an important role in defining the area’s lifestyle and landscape and contributes to the stability and diversity of the economy and local communities. Although the amount of farmland in the State is decreasing, the number of small farms is actually on the rise. There is a growing demand for locally produced retail products, including maple syrup, cheeses, fruits and vegetables, prepared food, meat and wool, as evidenced by the highly successful Farmer’s Market held in Londonderry since 1995 with a steadily increasing number of customers, vendors, and products.

Goals, Policies, and Actions

Goal 1: Protect and enhance biological diversity.
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Policies

1.1 Protect significant natural and fragile areas as defined in this plan.

- 1.2 Accept donations of land, funds and/or development rights through the Town's Land Conservation Fund.
- 1.3 Encourage the preservation of agriculture and forest resources via tax incentives, such as Vermont's Use Value Appraisal Program.
- 1.4 Support access to all public natural areas.
- 1.5 Conserve contiguous forest and agricultural tracts, discourage fragmentation and support voluntary conservation practices, including the enrollment in use value programs and conservation easements.
- 1.6 Maintain water quality at levels that support all existing and designated uses of surface waters.
- 1.7 Keep informed and current as to the quality and characteristics of Londonderry's surface waters and, as appropriate, recommend classification changes corresponding to the provisions of the state and/or federal classification system.
- 1.8 Prohibit development of any structure extending more than 100 feet above the ground or 50 feet above vegetation growing at its base, whichever is less, in the Resource Conservation Overlay District as such District is defined by Town of Londonderry Zoning Bylaws and, if such land is not included in the Resource Conservation Overlay District, above the 1500 foot elevation contour of Glebe Mountain.
- 1.9 Prohibit construction of energy generation facilities and specifically wind power generation facilities with installed electrical generating capacity exceeding 5 kW per windmill in the Resource Conservation Overlay District as such District is defined by Town of Londonderry Zoning Bylaws and, if such land is not included in the Resource Conservation Overlay District, above the 1500-foot elevation contour of Glebe Mountain.
- 1.10 Prohibit cutting trees to allow the construction of such energy generation facilities and specifically wind power generation facilities with installed electrical generating capacity exceeding 5 kW per windmill in the Resource Conservation Overlay District as such District is defined by Town of Londonderry Zoning Bylaws and, if such land is not included in the Resource Conservation Overlay District, above the 1500-foot elevation contour of Glebe Mountain.

Actions

- 1.1. Work with the Conservation Commission to identify all natural resources and fragile areas in the Town and educate citizens about their value to the community.
- 1.2. Develop and implement strategies to protect natural resources and fragile areas.

Goal 2: Maintain clean and healthy air.
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Policies

- 2.1 Strictly enforce performance standards adopted under the Town's Zoning Bylaw (Section 414) to maintain air quality.

Actions

- 2.1 Review and update Town's Zoning Bylaw (Section 414) to ensure the highest level of air quality for our community with incentives to support the use of better performing or updated equipment.
- 2.2 Review federal and state air quality statutes and study the effect of outdoor wood burning furnaces and other emissions effecting Londonderry's air quality.

Goal 3: Protect surface and ground water quality and quantity for drinking and other domestic uses, for fish and wildlife habit, and for recreational use.

Policies

- 3.1 Protect ground and surface waters, steep slopes, shallow soils, areas supplying significant recharge areas for groundwater supplies and watersheds for future public water supplies.
- 3.2 Require that the storage and transportation of hazardous chemicals does not pollute water resources.
- 3.3 Support town, state and national regulations to maintain and enhance water quality.
- 3.4 Maintain and restore the chemical, biological, and physical quality of the region's surface water per the objective in State water quality standards.
- 3.5 Require that water resources be maintained in a natural state.
- 3.6 Maintain appropriate undisturbed buffers of vegetation along watercourses, lakes, ponds, wetlands, and vernal pools in order to protect shorelines, provide shading to prevent undue increase in stream temperatures, minimize effects of erosion, sedimentation and other sources of pollution, and maintain scenic, recreational, and habitat values.
- 3.7 Ensure that new development is sited and suitably screened to avoid visibility as viewed from Lowell Lake, Lily Pond and Gale Meadow Pond.
- 3.8 Require that any construction project that disturbs five or more acres of soil submit an erosion and sediment control plan.
- 3.9 Prohibit development, including road and driveway construction, on slopes with gradients greater than 25%.
- 3.10 Require that any construction project that creates more than one acre of impervious area submit an erosion and sediment control plan.
- 3.11 Encourage strategies to protect water resources such as conservation easements, purchase of development rights and land trusts.
- 3.12 Protect groundwater from contamination from failed or poorly designed septic systems, the application or disposal of hazardous materials, and inappropriate development in water supply source protection areas (SPAs).

Actions

- 3.1 Develop standards for appropriate buffer zones between rivers, streams and other surface waters and new development, including roads, driveways and public and private trails.
- 3.2 Improve local process to identify and report pollution problems caused by septic systems or other sources of degradation impacting state and federal regulations for water quality to maintain public health and fish habitat in rivers, streams and surface waters.
- 3.3 Update all local regulations, bylaws and ordinances to reference current State rules for wastewater systems and stormwater runoff.
- 3.4 Review the boundaries and standards of the Resource Overlay Conservation District and Shoreland District to determine whether the district should be expanded to ensure that development does not diminish the natural and scenic resources associated with the shoreland.
- 3.5 Review the town's road and driveway policies and standards to determine whether erosion control provisions are adequate, especially as they relate to roads and driveways constructed on steep slopes. Make recommendations to the Select Board for changes as appropriate.
- 3.6 Participate in monitoring of local water resources and provide information and support to landowners with failed septic systems

Goal 4: Maintain and protect sand, gravel and other mineral and earth resources.

Policies:

- 4.1 Assure that the extraction and processing of mineral and earth resources do not have an adverse effect on the environment, burden municipal services or result in an undue inconvenience to neighboring landowners.
- 4.2 Ensure that all town regulations and review procedures provide for restoration of extraction sites.
- 4.3 Ensure that truck transport of earth and mineral resources minimize noise, dust, traffic and damage to roads and bridges.

Actions:

- 4.1 Work with local officials and the Agency of Natural Resources to identify and map important earth and mineral resources, current and potential extraction and processing facilities. Make available information on appropriate land reclamation practices.
- 4.2 Develop and utilize local (Town) sources of gravel and sand for local use, as feasible.
- 4.3 Require operators to monitor possible environmental impacts.

4. 4 Require that proposals for commercial or industrial extraction operations include a plan, with adequate bonding, for the restoration of the site as the extraction process continues and at the conclusion of the extraction or processing activities.

Goal 5: Protect and maintain enduring features and special natural places

Policies

5. 1 Maintain natural and man-made features that are of local scenic, cultural and historic significance and protect them from activities that impair their integrity, character and/or quality.
5. 2 Encourage landowners to consider the Town’s heritage and natural resources when developing their property through careful design and siting of all structures, access and parking lots, utility installation, lighting and landscaping.
5. 3 Encourage conservation development, as defined in land use district Rural Residential -3, to avoid fragmentation of larger parcels of land, retain open space, conserve agricultural and forestland and maintain scenic values.
5. 4 Encourage compatible and responsible use of lands adjacent to or including areas of scenic, historical, educational, architectural, or archaeological value.
5. 5 Development shall be prohibited on ridges and peaks located within the Resource Conservation Overlay District, including, particularly on Glebe Mountain above the 2000 foot elevation contour because of the prominence of Glebe Mountain. In other high elevation locations, development shall be carefully sited and screened to avoid undue adverse impacts to the scenic landscape.
5. 6 In the Resource Conservation Overlay District, energy generation facilities other than those serving as accessory uses to single-family homes are prohibited.

Actions

- 5.1 Identify locally significant scenic resources. Evaluate and rank identified scenic resources based on their identified values to the town and the need for their protection.
- 5.2 Develop methods for protection of identified locally significant scenic resources.
- 5.3 Retain and enforce local ordinances and bylaw provisions that protect scenic resources.
- 5.4 Review Section 315 of the town’s zoning bylaw to determine whether existing telecommunications standards are up to date and adequate to implement relevant provisions of this plan.

Goal 6: To protect and enhance the ecological integrity Londonderry’s diverse wildlife species and their habitats.

Policies

- 6.1 Plan development to minimize impact on significant wildlife habitat and encourage retention and improvement of wildlife habitats. Utilize the most current Agency of Natural Resources “Significant Habitats Map” (SHM) in the planning process and for current site-specific data. Note that SHM maps only show approximate locations and are intentionally general to protect sensitive species and the interests of landowners.
- 6.2 Encourage protection of wildlife resources as an economic benefit to the Town.
- 6.3 Protect riparian corridors for wildlife habitat, as well as water quality.
- 6.4 Maintain the Shoreland District and Resource Conservation Overlay District as a means of protecting wildlife habitat in especially sensitive areas.

Actions

- 6.1 Work with local citizens, the Town’s Conservation Commission and state officials to identify and map information related to fish and wildlife habitats, Natural Heritage Areas, and Natural and Fragile Areas.
- 6.2 Work with the Town’s Conservation Commission to develop non-regulatory means to protect habitat through public education, conservation easements, and purchase of development rights.

Goal 7: Balance the economic, environmental and social benefits of forest and agricultural land.

Policies - Forestry

- 3.4 Encourage sound forestry practices, including the participation of loggers and other forest workers in the Logger Education to Advance Professionalism (LEAP) program which increases safety levels and improves forestry practices.
- 3.5 Encourage the wise use of forestlands for forestry, wood products, maple syrup, recreation, wildlife, and scenic beauty.
- 3.6 Support the development and enhancement of local industries which produce value added forest products.
- 3.7 Support landowner and forest-worker educational programs and organizations that teach or demonstrate sustainable forestry, Best Management Practices and Acceptable Management Practices and also provide educational opportunities to the general public to understand and appreciate the environmental, economic, and recreational benefits offered by the Town’s forest resources
- 3.8 Support forest management practices as developed and implemented in management plans for specific parcels of town owned land.
- 3.9 Maintain the Resource Conservation Overlay District as an area in which forest management and outdoor recreation remain the predominate uses. Carefully manage residential uses to minimize adverse impacts on identified natural and scenic resources.

Actions

- 7.1 Work with the timber industry, local businesses and the regional and state economic development community to develop value-added products and uses for lower grade wood.
- 7.2 Cooperate with neighboring towns to maintain large tracts of undeveloped land.
- 7.3 Work with timber industry, non-governmental organizations and public agencies to develop and promote sustainable forestry programs, including public education programs.
- 7.4 Continue the development of policies that will protect forest lands. Review the zoning bylaws to determine whether current standards provide adequate protection for these lands and consider revisions if current standards are deemed inadequate.
- 7.5 Conduct community education programs in conjunction with the Conservation Commission and Energy Committee.

Policies - Agriculture

- 3.10 Encourage sound agricultural practices and the participation in Vermont's Required Agricultural Practices.
- 3.11 Help to preserve and maintain farms, agricultural lands and related services to ensure continuing viable agriculture for the community.
- 3.12 Require that development in agricultural areas be limited and designed to minimize adverse impact to agricultural soils.
- 3.13 Encourage conservation development enhanced by conservation easements and public services such as roads and power lines compatible with agricultural uses and aesthetics of the area. Require conservation development in agricultural areas, which are mostly in rural residential areas, be located near major roads, and situated near tree lines or in forest edges to preserve and maintain open agricultural land as much as possible.
- 3.14 Support the development, enhancement, and direct marketing of local industries which produce "value added" agricultural products.

Actions

- 7.6 Promote enrollment in Vermont's Use Value Appraisal Program.
- 7.7 Continue to foster local farms and food supply, not only for local quality of life, but to strengthen the economy.
- 7.8 Continue the development of policies that will protect agricultural lands. Review the zoning bylaws to determine whether current standards provide adequate protection for these lands and consider revisions if current standards are deemed inadequate.
- 7.9 Conduct community education programs in conjunction with the Conservation Commission.

COMMUNITY RESOURCES

People

There was unanimous consensus at the public forums conducted by the Planning Commission in 2016 that our greatest community resource continues to be the people of Londonderry. In developing a connected community, all ages and the broad spectrum of individual circumstances should be considered. Community gathering places should be created and supported; those that exist should be enhanced to better meet the needs and interests of the people.

Community activities and events, such as the 4th of July Parade and the Farmer's Market, should continue to be supported. New activities and events that can bring community members together should be explored.

Transient and enduring volunteer community service organizations and efforts, such as the Rescue Squad, Fire Departments, Beautification Committee, Food Pantry, should be supported. Volunteer energy and effort is required to drive small towns like Londonderry and serve the essential and enrichment needs of all residents. New volunteer efforts should be cultivated and supported.

Communication between town officials and community members at large should be enhanced and facilitated. Through the town's website, public forums, and other means, community members can enjoy effective and continuous communication and better opportunities to participate in, and contribute to, Town events and affairs.

Governmental Services and Facilities

Londonderry is fortunate to have dedicated volunteers and volunteer organizations, which perform vital services that make the community a viable, interesting and desirable place to live. Like all small towns in Vermont, Londonderry's governmental authority is derived from its charter, the Vermont Constitution and Vermont Statutes. The Selectboard is the municipal government and is responsible for the supervision of Town affairs. The volunteer Board is required to see that all duties imposed by Vermont Statute upon towns and school districts are performed. Other town officials, such as listers, town clerks and constables have specific duties specified by State statutes. In Londonderry, many quasi-governmental and cultural services are provided by volunteer organizations.

Town Officials include the governing board of a five-member Selectboard, Town Clerk, Town Treasurer, three Listers (property appraisers), three Auditors, First and Second Constable, Zoning Administrator, Delinquent Tax Collector, Grand Juror, Agent, Cemetery Commissioners, School Directors and the Trustees of Public Funds, Memorial Park and the South Londonderry Free Library. Most of these officials receive only modest stipends and/or expenses. Salaried employees include the Town Clerk and the assistant Treasurer, Road Maintenance, Recycling and Transfer Station personnel.

The Planning Commission is a five-member board appointed by the Selectboard. This commission is responsible for preparing and updating the Town Plan and the Zoning By-laws, and for developing special planning projects as approved by the Selectboard. There is also a five-member Conservation Commission appointed by the Selectboard.

The seven-member Development Review Board (DRB) is appointed by the Selectboard and is responsible for hearing appeals of the Zoning Administrator's rulings, processing requests for variances, conditional uses, and making flood plain determination with respect to building permit applications. The Zoning Administrator is appointed by the Selectboard and processes all building, development and sign applications.

The Town Office houses the Town's records, land deeds, Town Treasurer and Town Clerk and Selectboard's activities. The Listers, Zoning Administrator, Zoning Board, Planning Commission, Conservation Commission and Historical Society also use the building. The meeting room is used by both governmental and private organizations for a variety of public and private purposes. The Old Town Hall (1858) is used for Town Meeting and other public and private gatherings.

The Town also operates a town garage, a multi-town solid waste transfer and recycling center and two state certified septage spreading fields. (SB) The State Highway Department maintains a garage and storage facility near the north village.

The Town owns 29+/- acres on Route 100 between the north and south villages, with substantial frontage along the West River. This property was acquired to provide space for future needs such as storage for road maintenance supplies and equipment, possible relocation of fire station and water supply and wastewater treatment facilities. A town salt and sand supply shed is approved for construction on this site in 2017.

The U.S. Postal Service maintains post offices in both Londonderry and South Londonderry.

The Town also maintains cemeteries under the supervision of the Cemetery Commission. They are the Middletown, Glebe View, Brooks, Riverside, Lowell Lake, Rest Haven and Collins. Some of the cemeteries are quite old and contain the remains of Revolutionary War Soldiers and other early settlers.

Community Services and Facilities

The Town maintains supports and/or has access to a variety of health, cultural and educational facilities. Londonderry is host to and supports the Flood Brook Union School. Additionally, Londonderry has a Montessori School. The South Londonderry Free Library and its Historical Society provide a variety of cultural enhancements and opportunities. The West River Trail and the Depot are available for public educational and recreational events and programs as well as private functions.

Established in 1976, the Mountain Valley Medical Clinic in Londonderry provides area medical services, with three doctors, a nurse practitioner, physician assistants, registered nurses, medical

technicians and administrative staff to meet the needs of the community. This not-for-profit organization is supported by its own fund-raising, volunteers, community stipends and fees, and turns no one away. Additionally, the Ellsworth Home Health Agency, Visiting Nurses Alliance and Health Care and Rehabilitation Services of Southeastern Vermont provide comprehensive health care to the community, along with nearby and regional hospitals at Springfield, Rutland, Townshend and Lebanon, New Hampshire.

Health and rescue services are provided by the Champion and Phoenix Fire Departments, the Londonderry Volunteer Rescue Squad and the Mountain Valley Medical Clinic. The fire departments and rescue squad are operated by volunteers and do their own fund raising with support from the Town. Their fundraisers are an important part of community life. Members continually update their credentials and skills through monthly meetings, training seminars and special courses.

The non-profit South Londonderry Free Library has over 17,000 volumes in its collection and additionally provides special programs, local artist exhibitions and several computers with Internet access. Run by volunteers and a paid librarian, funds to operate are mainly derived from donations plus a modest town appropriation.

The Neighbor's Food Pantry, managed by volunteers and sponsored by the Second Congregational Church, offers a monthly food supplement to local and regional residents. Eighty-five percent of food items are purchased from the Vermont Food Bank, and local businesses, organizations and individuals donate the remainder. The Pantry was established in the early 1990s and today serves an average of 50 family units that choose to accept free food.

Neighborhood Connections is a non-profit organization offering preventative health care, health education and social services located in Londonderry that serves the communities of Londonderry, Weston, Andover, Windham, Winhall, Jamaica, Landgrove, Peru and Bondville. The grassroots agency opened its doors in 2009 out of a need for innovative and cost effective social outreach in the underserved populations of area mountain towns. They respond to community-identified needs with a range of social services and health-related programs, working closely with public and private resources at federal, state and local levels. Neighborhood Connections has recently established community partners group to work with area non-profits.

The Town's infrastructure is also augmented by its three churches, Historical Society, Boy Scout and Girl Scout Troops, Little League Baseball and Soccer Programs, Volunteer Senior Services, Rotary Club and several fraternal organizations.

Emergency Management Planning

Most preparation for disasters is left to local and regional organizations such as the fire department, search and rescue, Vermont Agency of Transportation, the County Sheriff and the State Police. While these organizations respond to emergencies, there is also a need to plan for, prepare for and recover from emergencies. Currently, the Town Office building is a municipal emergency center and the Flood Brook Union School is a regional emergency center.

The Town of Londonderry encourages emergency planning and disaster preparedness. Planning and preparedness may help to reduce risk to life and health, damage to public and private property and environmental damage that often occurs as a result of a disaster. Other aspects of planning for disasters include being prepared to: maintain realistic and calm response to actual emergencies; to know the location of resources and equipment that will be needed; to inform residents of the potential dangers and ways to avoid them; and to quickly arrange for help when it is needed. Londonderry participates in the National Flood Insurance Program (NFIP), has adopted town road and bridge standards, has adopted a Local Emergency Operations Plan and a Local Hazard Mitigation Plan and has conducted a Bridge and Culvert inventory.

Mighty Londonderry - the Town's community resilience organization (CRO)- is active in assisting the Emergency Management Director EMD in planning for emergencies.

Public Safety

In response to increasing criminal activity in Londonderry the Selectboard appointed an Ad Hoc Committee on Policing, which issued a report and recommendations in [November 2015](#). One recommendation from the report is contract for police protection and in 2016, the Town contracted for 25 hours a week with the Vermont State Police. This decision was re-approved in 2017.

Parks and Recreation Facilities

Londonderry is fortunate to have several parks and playgrounds to meet basic recreational needs. The Town owned facilities are managed by a Selectboard appointed Londonderry Park Board.

Park and Recreation facilities in Londonderry include:

Pingree Park – 10+ acres in the North Village providing three Little League baseball fields, a playground, a skateboard half-pipe, a tennis court, a covered picnic shelter, a basketball court and open space.

Memorial Park – in South Londonderry providing swimming, picnicking and outdoor recreation.

Buxton and Williams Park – are green spaces in the South and North Village. They require signage and possibly benches and tables.

Sharp Bequest – a gift to the Town of 25 acres for a Forest Reserve and Municipal Park. There is good potential for trails, nature preserve and Nordic skiing.

Flood Brook School Playground – has swings, slides and similar equipment and playing fields.

Winhall Brook Recreation Area – owned and managed by the Army corps of Engineers, providing camping, hiking, swimming, hunting, and a trail to the Ball Mountain Dam and Lake in Jamaica.

National Forest Lands and other public lands – provides hunting, hiking and nature study.

Lowell Lake – a one hundred acre lake, of which three quarters of the shoreline is owned by the Vermont State Forests, Parks and Recreation. The state park offers non-motorized boating,

fishing and unsupervised swimming. The Vermont Department of Forests & Parks has a 10-year development plan for the park, developed in collaboration with the Town. There is also a perpetual conservation easement associated with this land.

West River and Gale Meadows Pond – provide fishing, swimming and boating.

West River Trail – a safe and scenic multi-modal transportation path along the West River mostly following the historic West River Railroad bed from the original Depot site in South Londonderry Village south through the Winhall Brook Campground and on to Ball Mountain Dam, Jamaica State Park and Townshend Dam. The trail is also being reclaimed from Brattleboro north to connect eventually as one 36 mile route end to end.

Skiing – Nordic skiing is available on 50 kilometers of trails at the Viking Touring Center and numerous other locations such as Lowell Lake and the West River Trail. Magic Mountain Ski Area provides challenging down-hill skiing enhancing local winter recreation, together with nearby Stratton, Bromley and Okemo Ski resorts.

After Tropical Storm Irene the State of Vermont and FEMA provided funding to buy properties that have had repetitive flooding in the north and south villages. The town obtained or will soon obtain five properties that will provide passive recreation opportunities in the villages.

Cultural and Historic Resources

Londonderry's historic resources include a settlement pattern featuring distinct villages located along a waterway with open space, lower density and natural scenic beauty in the surrounding areas. A few eighteenth and many early nineteenth century structures of distinctive traditional architecture remain throughout the Town. Most buildings in South Londonderry are within a designated National Historic District. In addition, the Town Hall is listed on the National and State Register and four structures are listed with the Vermont State Register of Historic Places. These include: the Carpenter Gothic House (Walker House), the Brick House (South Londonderry), and Landman's Store (Village Pantry). The historic one-room Thompsonburg Schoolhouse and brick First Baptist Church were lost completely to arson in 2009.

The village centers of Londonderry and South Londonderry have been designated as Vermont Village Centers. This designation will allow income producing properties in the village centers to access state historic tax credits.

Londonderry also considers its public cemeteries and small private unnamed family burial plots important scenic, historic and cultural resources. Many stonewalls and cellar holes remain as a part of the history of ownership of land and the layout of the Town. They are the historic features of the Vermont landscape and an essential element of Londonderry's cultural heritage.

Educational Services

Londonderry is part of the Mountain Towns Regional Education District (RED), which includes the Town of Weston, Peru and Landgrove. In July 2018, Londonderry will be part of the Taconic and Green RED District which contains the additional towns of Danby, Dorset, Manchester, Sunderland and Mount Tabor. Flood Brook Union School provides pre-kindergarten through

eighth grade education for the RED. The school enrollment has remained rather steady over the last decade (see chart). Flood Brook provides students with a breakfast program and after school enrichment programs.

School Enrollment (includes prekindergarten)

	2006	2011	2012	2013	2014	2015
Flood Brook Union School	324	295	296	318	322	323

Flood Brook students and programs are supported by the Flood Brook Community Collaborative, a community based substance abuse prevention coalition that seeks to promote the development of a healthy involved community supporting substance free youth in a caring environment. With a small staff and many trained volunteers, this non-profit sponsors healthy community building activities that foster intergenerational sharing and create positive messages to support positive behavior and choices among area young people.

Child care and early childhood education are important components of the Londonderry community and its future. Ensuring accessible, affordable, quality child care is vital. Availability of child care services can have a direct effect on the vitality of the Town by encouraging young families to locate and remain in Londonderry. With the number of families in which both adults work outside the home increasing, the demand for child care services has also increased.

As of December 2016 the Vermont Department for Children and Families Bright Futures Child Care Information System reported that there were two licensed child care providers (West River Montessori School, Inc. and Mountain Communities Supporting Education, Inc) and one registered child care home in Londonderry. There are also licensed providers and registered child care homes in neighboring towns. The Town recognizes the critical importance of safe and affordable child care in the context of planning for the future of our community. Child care pertains to children ages birth to twelve years (Vermont Child Care Services Division).

The local demand for child care services is difficult to measure, but the following statistics might shed light on possible need for child care. In 2010 15.4% (272) of the population was under the age of 15, whereas in 2000, 17.7% (301) of the population is under the age of 15. In 2010 there were 493 family households (62% of 790 households) in Londonderry. Of the family households, in 2010, 24% (188) have children under the age of 19.

Secondary school education is provided on a voucher payment basis to nearby schools, including Burr & Burton Academy, Green Mountain Union High School and Leland & Gray Union High School, Long Trail School and private schools, both in and out of Vermont. Approximately 90% of Londonderry High School age students go to Burr & Burton. This tuition paying system has proven to be educationally and financially satisfactory to the Town.

Adult education is available to Londonderry residents through programs of colleges, universities, regional high schools and other organizations that offer academic and vocational classes on line, or on campus. Campus classes are typically at least a 35 mile commute for Londonderry students.

Providing quality educational opportunities for its residents is one of the most important services of the Town of Londonderry, where residents have a strong tradition of providing support for the school system. Creating, maintaining and improving educational opportunities for all ages are vital to our quality of life.

Solid Waste

Solid waste in Londonderry is managed in conjunction with the towns of Landgrove, Peru, Weston, and Windham. These five communities are located in Bennington, Windham, and Windsor Counties and are members of the Londonderry Solid Waste Group. Their proximity and a conveniently located transfer station, on Route 100 in Londonderry, has given rise to a cooperative arrangement since 1947. The Londonderry Group is working diligently to develop policies and programs to maximize waste reduction, recycling, and household hazardous waste diversion.

The Group's overall waste generation is largely influenced by the volume and characteristics of commercial activity. By and large, commercial activity in the five towns is service oriented and is smaller in scale with the exception of the Bromley Mountain (Peru) and Magic Mountain (Londonderry) ski areas. Manufacturing activity is also smaller in scale.

The Town of Londonderry participates in Vermont Green Up Day, traditionally held on the first Saturday in May. Volunteers participate in a wide range of activities designed to clean up highways and roads of trash and litter.

Water and Waste Water

All of Londonderry is served by individual private water supplies, usually drilled or dug wells. Threats to groundwater and wells include agricultural runoff, nearby salt storage areas, road salting, contaminated runoff from paved areas, flood events, and failing septic systems. Some water systems have been pumped at rates exceeding the aquifer's capacity, resulting in yields that do not adequately meet the needs of users. Some systems have inadequate storage capacity, creating problems during power failures when homes may be without water.

Most of the town is served by on-site wastewater disposal systems (septic systems). The exception is three private systems, Smith Haven housing complex, Flood Brook School and Magic Mountain, as shown on the following chart.

Location	Facility Design Capacity (MGD)	Average Monthly Flow (MGD)	Percent of Design Capacity Remaining	Sludge Treatment or Disposal Technique	Effluent Disposal Location
<i>Private Non-Industrial</i>					
Flood Brook Union School	0.009	0.00125	--	Incineration	No Name Brook

Magic Mountain	0.039	NA	93.30%	Incineration	Spray – Thompsonburg Brook
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Appropriate isolation distances from streams and wells and separation from the high water table helps to prevent pollution of ground and surface waters from leachates. Since 2007, the State adopted *Wastewater System and Potable Water Supply Rules*, which regulate on-site wastewater systems, making the State the sole administrator of permits. A town may request to take over permitting of the Wastewater System and Potable Water Supply Rules; however, Londonderry has chosen instead to rely on the state to implement its rules for wastewater and water supply.

Soil and topographic conditions play a major factor in on-site sewage disposal system design. The 2007 State regulations incorporated several technical changes including allowing for less naturally occurring soil to the seasonal high water table. In addition, innovative technologies to handle the wastewater may be permitted.

Proper design, construction, and maintenance of onsite wastewater systems are important to keep them operating effectively, thereby preventing ground and surface water contamination. Many septic tanks are pumped infrequently, and some not at all, which can increase their rate of failure. This creates concerns about potential groundwater and surface water pollution, and about public health risks. Commercial haulers pump septage from septic tanks or holding tanks and are then responsible for finding an approved facility for disposal of the material.

Future Needs

Revitalization of Londonderry and South Londonderry Villages is an important strategy in economic development and land use sections of this plan. However, these areas are densely developed and the lack of community water and waste water systems has been cited as one of the limiting factors for redevelopment in the villages.

Communications

The communications network in Londonderry consists of public and private systems of various kinds including telephone, television, radio, newspaper, and internet services. Encouraging a diversity of communication systems and new technology are extremely important for community and economic development. However, some of these new technologies come with new equipment and facilities that can change the character of the Town.

Communication towers are one of the most visible indicators of the technological age. These metal towers can stand 300 feet tall and the footprint can encompass up to two acres depending on road access. The Federal Telecommunications Act of 1996 (TCA) establishes a comprehensive framework for the exercise of jurisdiction by State and local zoning authorities over the construction, modification, and placement of facilities such as towers for cellular, personal communications service and specialized mobile radio transmitters. This law allows the preemption of local zoning authority by the FCC.

Vermont Act 94 of 1998 provides the Town with help to develop appropriate zoning for telecommunications facilities. This Act requires the service provider to pay for dismantling of any tower no longer in use and requires the applicant for a tower permit to pay for reasonable costs of an independent technical review on the application. The State relies on Act 250 to review the development of communication towers. Because towers often exceed 200 feet and are often located above 2,500 feet in elevation, applicants are required to get an Act 250 permit.

Pursuant to 24 V.S.A. § 4401 et seq. a Planning Commission/Zoning Board of Adjustment is authorized to review, approve, conditionally approve, and deny applications for wireless telecommunications facilities, including sketch, preliminary and final plans, and installation. Pursuant to 24 V.S.A. § 4407, a Planning Commission/Zoning Board is authorized to hire qualified persons to conduct an independent technical review of applications and to require the applicant to pay for reasonable costs thereof.

The Town should be prepared to evaluate advances in the telecommunications industry to access emerging technologies for economic benefit. The Town should be ready to emphasize its needs. This means paying attention to and having a voice in the location of existing and future infrastructure, and understanding the current needs of the community. Because communication towers have an immediate visual impact on the Town's landscape, such development projects must be done with sensitivity and foresight.

Goals, Policies, and Actions

Goal 1: To enhance Londonderry's sense of community.

Policies

- 1.1. Promote a strong sense of community by supporting the development of community gathering places for all ages.
- 1.2. Develop high quality publications that are informative, helpful and inclusive and are available to anyone interested in visiting or relocating in Londonderry.
- 1.3. Encourage all citizens to support the various volunteer organizations such as the Scouts, Library, Fire, Rescue, Churches and other groups that enrich our community.

Actions

- 1.1. Work to form and maintain unique traditional Town events to foster stronger community interrelationships and foster strong community economic development.
- 1.2. Develop an action plan for providing more community beautification such as plantings in parks throughout the Town.
- 1.3. Research the potential for a community garden and composting.
- 1.4. Develop a plan to encourage youth involvement in all aspects of the Town.

- 1.5. Inventory community human resources and develop “People Pages,” as a guide to local services and businesses.
- 1.6. Explore the development of a “Town Life” Committee to promote community activities.

Goal 2: To enhance the effectiveness of local government

Policies

- 2.1. The Town should take necessary actions to become and remain eligible for municipal, state, and federal grants, which may provide a means to supplement other sources of Town revenue and assist in the satisfaction of future needs identified under each of the following headings.
- 2.2. Strengthen local government with technical assistance from appropriate state and regional agencies.
- 2.3. The Town shall ensure an effective and efficient local government by making every effort to ensure that voluntary Town committee and service positions are filled.
- 2.4. The Town shall encourage citizen participation by making meetings and procedures (where appropriate) open and accessible to all.

Actions

- 2.1. Plan for future infrastructure needs and budgetary needs.
- 2.2. Develop techniques to promote volunteerism and recruit to fill vacancies on Town committees as appropriate.
- 2.3. Implement voter-approved Town Offices Planning Project (TOPP).
- 2.4. Develop an updated Master Plan for town-owned Prouty land.

Goal 3. To encourage a high quality of life for Londonderry residents by supporting local access to comprehensive essential services and enrichment programs.

Policies

- 3.1. Support social, cultural, health and educational services as appropriate.
- 3.2. Work with other organizations to understand and support ways to address the needs of elderly and low-income residents.
- 3.3. Work with other organizations to identify and address the needs of youth beyond formal education and existing recreational opportunities.
- 3.4. Support the development of public restrooms that are handicapped accessible for community functions.

Actions

- 3.1 Review annually the accessibility and adequacy of services available to residents.
- 3.2 Require that public facilities be handicapped accessible with adequate and safe parking.
- 3.3 Seek funding for public restrooms.

Goal 4: To ensure that Londonderry has sufficient emergency planning and disaster preparedness to help to reduce risk to life and health, the damage to public and private property and the environmental damage that often occurs as a result of a disasters.

Policies

- 4.1. Require that all new public and private roads and driveways be properly constructed so that they do not contribute to the damage of Town or State roads from run-off.
- 4.2. Encourage the improvement of existing roads and design culverts and bridges to carry a 25-year flood event without damage.
- 4.3. Encourage the development and improvement of emergency evacuation plans, including the protection of pets and livestock.
- 4.4. Require that the Town participate in the National Flood Insurance Program.

Actions

- 4.1. Work to identify at-risk populations.
- 4.2. Work with State and local emergency preparedness organizations.
- 4.3. Plan for protection of the Town's historic assets from disasters.
- 4.4. Evaluate flood hazard areas at least every two years.
- 4.5. Seek funding for mitigating historic flooding problems in the Town.

Goal 5: To ensure police protection for Town residents as a means to reduce crime and to promote public and personal safety.

Policies

- 5.1. Ensure that timely and effective police services are provided for Town residents.

Actions

- 5.1. Establish a permanent Policing Committee charged with facilitating integrative policing practices. Evaluate periodically the effectiveness of policing services.
- 5.2. Sponsor educational workshops on personal safety and private security.

- 5.3. Consider adopting a Neighborhood Watch Program if deemed appropriate for Londonderry.

Goal 6: To provide a safe and pleasant recreational environment for residents of Londonderry and their guests.

Policies

- 6.1. Encourage local groups to provide new recreational opportunities for youths and teenagers.
- 6.2. Improve existing recreational opportunities for residents and community guests.
- 6.3. Require that development not diminish the value and availability of outdoor recreational activities.
- 6.4. Require that public access to non-commercial outdoor recreational opportunities be identified, provided and protected wherever appropriate.

Actions

- 6.1. Explore ways to increase programming at the recreation resources in the Town.

Goal 7: To foster respect for and preservation of existing cultural and historic resources that contribute to the Town's heritage and landscape.

Policies

- 7.1. Protect places of outstanding cultural, aesthetic, archeological, natural and/or historical value from development that impairs their character and quality.
- 7.2. Encourage rehabilitation of significant historic sites and structures.
- 7.3. Require an appropriate buffer area around historic and cemetery resources.
- 7.4. Encourage development plans that preserve the historic, cultural, natural and architectural character of town and village centers and the rural landscape.
- 7.5. Explore and employ adaptive reuse of architecturally or historically significant structures that will allow continued value to the community with minimum impact to the resource.

Actions

- 7.1. Support use or ownership to preserve significant historic sites or structures.
- 7.2. Participate in the state Historic Sites and Structures Survey, to further identify locally significant historic resources.
- 7.3. Educate owners of income producing historic properties in designated village centers the availability of historic state and federal tax credits.

- 7.4. Educate the community as to the intrinsic value of dry laid stone walls and their retention along old roads and paths around cemeteries.

Goal 8: To provide the highest quality education as is possible while keeping within the financial capabilities of the Town of Londonderry.

Policies

- 8.1. Look to the School Directors for leadership in efficiently developing and maintaining the highest quality educational opportunities possible consistent with the financial capabilities of the community.
- 8.2. Encourage the maximum use of the school facilities by community groups for educational, recreational and other uses, including adult education.
- 8.3. Encourage the utilization of all the community's resources (people, businesses, farms, etc.) in the day-to-day educational process.
- 8.4. Support access to a broad range of educational opportunities such as alternative schools, community colleges, classes via interactive TV, Internet, correspondence schools and others.
- 8.5. Support town and regional efforts to increase the availability and affordability of child care and early childhood education.
- 8.6. Consider Londonderry's capacity to provide quality child care for its youngest population when the Town responds to local and regional development proposals.

Actions

- 8.1. Help coordinate community discussion of Londonderry's child care needs and related issues such as financing, infrastructure, and business assistance for child care providers as well as training for the child care work force.

Goal 9: To work to minimize the amount of waste needing to be disposed.

Policies

- 9.1. Support efforts to reduce solid waste that is landfilled or incinerated.
- 9.2. Support efforts to reduce the unnecessary use of toxic and hazardous materials.
- 9.3. Support Green Up Day efforts and provide Town green up bags for anyone wanting to pick up litter and provide for a place at which these bags may be left.
- 9.4. Support recycling, composting, waste reduction, and beneficial reuse programs that are flexible and reliable.
- 9.5. Promote environmentally sound and cost effective disposal for all solid waste that cannot be recycled, composted or otherwise reused.

- 9.6. Support waste disposal fees that accurately and fairly charge disposal costs to the waste generators.
- 9.7. Promote cooperation among participating communities to implement source reduction, recycling and composting on a multi-community basis.

Actions

- 9.1. Distribute pamphlets on the benefits of reuse, recycling and composting to all residents and property owners, offices and businesses, including restaurant, retail, real estate, landscaping, construction and home maintenance services.
- 9.2. Work with fire warden and other efforts to prevent illegal open burning.

Goal 10: To ensure clean, efficient and properly well maintained water and waste water systems.

Policies

- 10.1. Maximize water conservation.
- 10.2. Private, on-site wastewater disposal systems shall meet all applicable State and local standards.

Actions

- 10.1. Create a task force to begin research and development of sewage treatment and water supply options to support continued use of existing buildings and the "village" concept, while protecting public health.
- 10.2. Provide water conservation information to Town residents.
- 10.3. Develop an inventory of private septic systems and conditions town wide.

Goal 11: To encourage the development of state of the art communication facilities of all types to meet the long-range needs of the community and for economic development while maintaining the character and landscape values of the Town.

Policies

- 11.1. Require that all applicants comply with all Federal, State and Town ordinances, bylaws and or regulations.
- 11.2. Protect the scenic, historic, environmental, and natural resources of the Town.
- 11.3. Preserve the character and aesthetic natural beauty of the Town while evaluating the development of wireless telecommunications services.
- 11.4. Provide standards and requirements for the operation, siting, design, appearance, construction, monitoring, modification, co-location and removal of wireless telecommunications facilities and towers.

- 11.5. Minimize tower and antenna proliferation by requiring the sharing of existing communications facilities, towers and sites where possible and feasible.
- 11.6. Facilitate the provision of telecommunications services to the residences and businesses of the Town.
- 11.7. Minimize the adverse visual effects of towers and other facilities through careful design and siting standards.
- 11.8. Encourage, through performance standards and incentives, the location of towers and antennas in non-residential areas and away from other sensitive areas including, but not limited to schools.
- 11.9. Require permits be granted to these facilities for a limited time period.
- 11.10. Require periodic review and new permit conditions that will reflect advances in knowledge, experience, and technology.
- 11.11. Require downsizing as communication technology advances.

Action:

- 11.1. Retain local regulations and bylaws to include telecommunication towers, revising as appropriate and necessary for consistency with state and federal standards, as well as local planning goals and objectives.

FLOOD RESILIENCE

Background

In 2013 Vermont enacted Act 16, “An act relating to municipal and regional planning and flood resilience, which requires that all municipal and regional plans effective after July 1, 2014 include a “flood resilience element” pursuant to the purpose and goals of 24 V.S.A. § 4302 - Purpose; Goals - subsection (c)(14):

(14) To encourage flood resilient communities.

(A) New development 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.

(B) The protection and restoration of floodplains and upland forested areas that attenuate and moderate flooding and fluvial erosion should be encouraged.

(C) Flood emergency preparedness and response planning should be encouraged.

Act 16 also amended 24 V.S.A. § 4382 - The plan for a municipality - adding a twelfth element to the requirements for a municipal plan, specifically to include a flood resilience plan:

(a) A plan for a municipality . . . shall include the following:

(12)(A) A flood resilience plan that:

(i) identifies flood hazard and fluvial erosion hazard areas, based on river corridor maps provided by the Secretary of Natural Resources pursuant to 10 V.S.A. § 1428(a) or maps recommended by the Secretary, and designates those areas to be protected, including floodplains, river corridors, land adjacent to streams, wetlands, and upland forests, to reduce the risk of flood damage to infrastructure and improved property; and

(ii) recommends policies and strategies to protect the areas identified and designated under subdivision (12) (A) (i) of this subsection and to mitigate risks to public safety, critical infrastructure, historic structures, and municipal investments.
(emphasis added)

(B) A flood resilience plan may reference an existing local hazard mitigation plan approved under 44 C.F.R. § 201.6.

Fluvial Erosion

By statutory definition, “fluvial erosion” means the erosion or scouring of riverbeds and banks during high flow conditions of a river. Most of the flooding damage experienced in Vermont is from the power of moving water causing the sudden destruction of under-sized culverts and erosion of stream banks supporting roads and buildings. Providing a river the room it needs to slow the flow, over time can allow it to function as a responsive system and avoid repeated losses to public infrastructure and investments.

Erosion (and deposition) along a stream or river is natural. Sometimes, efforts to stop this process in one place can make it worse in others. Rivers, streams, and their channels are changing constantly in response to the inputs of water, energy, sediment and debris that pass along them. Every few years a stream fills to bankfull and the shape of the channel responds to this force by cutting deeper into some streambanks and also by depositing sediments in the quiet inside bends. This process is visible as an “S” shaped form that slowly changes position.

If the stream cannot spill out of its banks, the power of the trapped water increases and the channel either digs down or cuts out further to the sides. Where the roads and buildings are nearby these adjustments to the channel’s shape can become dramatic and costly.

A river is in geomorphic equilibrium when its water, energy, sediment, and debris are in balance. In this condition a river is neither building up sediment in the channel nor losing sediment from its bed. Importantly, a river in equilibrium has not become overly deep and can continue to overflow onto its floodplains. The water that spills onto the floodplain slows down, and the velocity of the water still in the channel does not become excessively powerful.

In order to protect roads and buildings it is important to be sure that the river is able to function as well as possible upstream and downstream. We need functional streams and rivers with room to adjust (River Corridors) and intact floodplains to moderate the impact of high water events.

River Corridors and Floodplains

River Corridors and floodplains are different but related. The River Corridor is the area that provides the physical space that the river needs to express its energy and meander without it having to dig down. The River Corridor includes a 50-foot buffer on either side of the fluvial erosion hazard area to prevent disturbance in this area and allow for bank stabilization. In statute the area is defined as: *"River corridor" means the land area adjacent to a river that is required to accommodate the dimensions, slope, planform, and buffer of the naturally stable channel and that is necessary for the natural maintenance or natural restoration of a dynamic equilibrium condition and for minimization of fluvial erosion hazards, as delineated by the Agency of Natural Resources in accordance with river corridor protection procedures.*

A floodplain is the area where water flowing out over a river bank can spread out and slow down. The floodplain as defined by FEMA is the area that will be inundated by the flood event having a 1-percent chance of being equaled or exceeded in any given year. The 1-percent annual chance flood is also referred to as the base flood or, most commonly, the 100-year flood.

River Corridors and floodplains overlap a great deal. One on top of the other there might be 60 – 90% overlap. However, there are areas in the River Corridor that will be eventually shaped by the channel - although they may be currently high and dry - and other areas in the floodplain that will be under water during a large flood, but which the river channel may not need to access to maintain its geomorphic equilibrium.

The extent of a River Corridor is based on calculations including such things as the meander belt of the stream, soils, watershed size and gradient, and channel width. The extent of floodplains is based on calculations such as stream peak flow history and frequency.

Regulatory Flood Hazard Designations

There are two types of regulatory flood hazard designations and two sets of official maps that identify those flood hazards in Vermont: inundation hazard areas are identified by the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRMs); fluvial erosion hazard areas are identified by the VT Agency of Natural Resources on River Corridor maps.

Londonderry has land, homes and businesses that are susceptible to the two types of flooding impacts: inundation and fluvial erosion. Inundation flooding occurs during high water events. Fluvial erosion occurs in areas both in and out of the flood hazard area (floodplain) as mapped by the Federal Emergency Management Agency (FEMA). Both inundation flooding and fluvial erosion are potential hazards along the:

- West River
- Winhall River
- North Branch of the Williams River
- Cook Brook
- Utley Brook
- Flood Brook
- Beaver Meadow Brook
- Tannery Brook
- Eddy Brook

as well as along the streams that drain watersheds extending to our border with Jamaica and Winhall. Inundation flooding can also happen along Lowell Lake and Lilly Pond.

Inundation Hazard

Towns participating in the National Flood Insurance Program (NFIP) must regulate development in areas designated on the FIRMs that show the floodplain that FEMA has calculated would be covered by water in a 1% chance annual inundation event, also referred to as the “100 year flood” or base flood. This area of inundation is called the Special Flood Hazard Area (SFHA). FIRMs may also show expected base flood elevations (BFEs) and floodways (smaller areas that carry more current). FIRMs are only prepared for larger streams and rivers. The Town of Londonderry has areas of inundation hazard flood risk mapped by FEMA.

Fluvial Erosion Hazard

A significant portion of flood damage in Vermont occurs outside of the FEMA mapped floodplain areas and along smaller upland streams, as well as along road drainage systems that fail to convey the amount of water they are receiving. Property owners in such areas outside of SFHAs are not required to have flood insurance. Vermont ANR’s river corridor maps show the area needed to address the fluvial erosion hazards, which may be inside of FEMA-mapped areas, but often extends outside of those areas. River corridor maps delineate areas where the lateral movement of the river and the associated erosion may be more of the threat than inundation by floodwaters. Elevation or floodproofing alone may not be protective of structures in these areas, as erosion can undermine structures. ANR released statewide river corridor maps in late 2014. The Town of Londonderry has areas of River Corridor mapped by ANR.

Flood Hazard Regulation

Inundation

For federal flood insurance to be available to property owners through the National Flood Insurance Program (NFIP), a municipality must adopt and administer flood hazard area regulations. These can be within local zoning regulations or adopted as a free-standing bylaw. A community’s flood hazard regulations must apply to at least the Special Flood Hazard Areas identified by FEMA. They regulate new structures and place restrictions on other types of activities, such as fill within the floodplain. They specify land, area and structural requirements to be adhered to within the SFHA.

Erosion

To address Act 16, to protect citizens, infrastructure, and the environment, and to qualify for maximum Emergency Relief and Assistance Fund state match in the event of a disaster, a town must adopt and administer River Corridor protection standards as part of its flood hazard area regulations. These can be within local zoning regulations or adopted as a free-standing bylaw.

Addressing Flood Resilience

This plan identifies flood hazards as the Special Flood Hazard Areas (SFHAs) shown on the NFIP FIRMs and identifies fluvial erosion hazard areas as those shown on the ANR River Corridor

maps. Further, this Plan designates both those identified areas as areas to be protected, including floodplains, river corridors, and land adjacent to streams, wetlands, and upland forests, to reduce the risk of flood damage to infrastructure and improved property. In addition, this plan incorporates by reference the town's Local Hazard Mitigation Plan approved under 44 C.F.R. § 201.6. Finally, this plan recommends the following policies and strategies to protect the designated areas to mitigate risks to public safety, critical infrastructure, historic structures, and municipal investments.

Goals, Policies, and Actions

Goal 1: To reduce the loss of life, injury and economic impacts resulting from all flood hazards

Policies

- 1.1 Flood emergency preparedness and response planning are encouraged.
- 1.2 It is the policy of the Town to protect floodplains, river corridors, land adjacent to streams, wetlands, and upland forests through adoption and administration of flood hazard area regulations governing development in designated Special Flood Hazard Areas and River Corridors, in order to reduce the risk of flood damage to infrastructure, improved property, people, and the environment.
- 1.3 Prohibit development in floodplain areas, except for forestry, agriculture, recreation and open space.
- 1.4 Require that any floodplain development conform to Vermont Department of Environmental Conservation (24 V.S.A.) and the National Flood Insurance Program (44 C.F.R.) regulations.

Actions

- 1.1 Train Town Officials in ICS 100 and 402.
- 1.2 Acquisitions/buyouts of structures that are substantially damaged along the West River.
- 1.3 Host Community Education and Outreach Program on how to construct a residential safe room with guides on the Town website.
- 1.4 Acquire EMD Certification Level 1.
- 1.5 The Town will regulate any new development in identified flood hazard areas, fluvial erosion hazard areas, and/or River Corridors to ensure that development does not exacerbate flooding and fluvial erosion, and extend these provisions to development activities that might increase the amount and/or rate of runoff and soil erosion from upland areas.
- 1.6 The Town will further pursue a flood resilience management approach by implementing their Local Hazard Mitigation Plan and other strategies for restoring the stream

geomorphic equilibrium conditions and enhancing the emergency preparedness that will mitigate the risks to public safety, critical infrastructure, historic structures, and municipal investments.

Goal 2: To reduce the impact of flood hazards on the town's water bodies, natural resources, and historic resources

Policies

- 2.1 It is the policy of the town to foster the protection and restoration of river corridors, floodplains, wetlands, and upland forested areas that attenuate and moderate flooding and fluvial erosion.
- 2.2 New development 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.
- 2.2 The protection and restoration of geomorphic equilibrium, floodplains and upland forested areas that attenuate and moderate flooding and fluvial erosion should be encouraged.

Actions

- 2.1 Expand Cobble Ridge Road Bridge.
- 2.2 Stabilize Goodaleville Road embankment.
- 2.3 Upgrade Lowell Lake Road and Derry Woods Road culverts.
- 2.4 The Town will be familiar with Flood Insurance Rate Maps (FIRMs) that delineate areas that could be inundated by water during flooding. (Selectboard, Development Review Board, Zoning Administrator)
- 2.5 The Town will be familiar with ANR River Corridor maps that delineate the land area adjacent to streams and rivers that are required to accommodate a stable channel. (Selectboard, Development Review Board, Zoning Administrator)
- 2.6 The Town will pursue a flood resilience management approach whose essential components are to identify and map flood and fluvial erosion hazard areas based on studies and maps provided by the Vermont ANR Rivers Program, and designate those areas for protection to reduce the risk of flood damage to infrastructure and private property.
- 2.7 The Town will update the Flood Hazard Areas Regulations to include regulation of river corridors, and include provisions for advance notification of and specific limits on new development activities in identified flood hazard areas, fluvial erosion areas, and/or River Corridors, based on regulatory templates developed by the ANR DEC Rivers Program.

TRANSPORTATION

Roads and Bridge Infrastructure

The public road network in the Town of Londonderry consists of State highways and Town roads. The closest interstate highway is I-91 which passes through Rockingham and Brattleboro. State highway Routes 11 and 100, the Town’s main arterial highways, provide regional access to our mountain valley. The following table shows town and state road miles within Londonderry.

Classification of Town Highway/Roadway

	MILES	DEFINITIONS (VSA Title 19, Section 302)
Class 1 Town Highways	0.00	Extension of State routes marked with State route number
Class 2 Town Highways	12.19	Major roads linking other towns and/or heavily traveled
Class 3 Town Highways	40.01	Other town roads passable in all seasons
Class 4 Town Highways	3.83	Town highway often unmaintained and impassable
State Highways	15.20	State market highway routes (VT-11 and VT-100)
Total Traveled Miles	67.40	
Legal Trail	3.23	Town right of way that is generally former town highways ³ . Town is not responsible for the up keep of a legal trail.

Source: Londonderry, VT General Highway Map, 2015

There are 668 town structures in Londonderry (666 culverts and 2 town short bridges⁴). In 2013 the Town completed a culvert inventory in through a Better Back Roads grant. There are 6 state short bridges and 8 town long⁵ and 4 state long bridges

In 2014 as part of the Better Back Roads project the Road Foreman, Road Commissioner and Town Administrator identified road and bridge sites that are critical for the town’s infrastructure. Road and Bridge Project list was updated in 2016 to reflect projects that have been completed.

Road and Bridge Projects

	Site Location	Description	Cost
Critical High	- Derry Woods – Culvert	The existing culvert is 24’ long. There are 2-3 swamps up stream that contribute to the water flow through this culvert. The road is low enough to be breached when necessary. There’s a lot of beaver activity	\$120,000.00

³ Trail - means a public right-of-way which is not a highway and which: (A) previously was a designated town highway having the same width as the designated town highway, or a lesser width if so designated; or (B) a new public right-of-way laid out as a trail by the selectmen for the purpose of providing access to abutting properties or for recreational use. Nothing in this section shall be deemed to independently authorize the condemnation of land for recreational purposes or to affect the authority of selectmen to reasonably regulate the uses of recreational trails.

⁴ A short structure is 6’-20’ in length while a long structure is greater than 20’.

⁵ Town long structures are generally maintained by the State.

Critical – Moderate	Goodaleville Road Ditch Stabilization	North side of the road, bank is slumping and the ditch is not well defined. The ditch ends into the West River, where the bridge is out.	\$6,215.00
Critical – Moderate	Spring Hill Road Bank Stabilization	Two separate stream banks that need to be stabilized.	\$20,500.00
Critical-Low	Thompsonburg Road Bridge	Bridge is in ok shape. There is some cracking on the abutments and the guardrails need to be replaced.	\$96,250.00
Critical – Low	Cobble Ridge Road Bridge	This bridge was replaced, to an extent, after it was washed out by Irene.	\$500,000.00
Total Costs			\$742,500.00

A safe and functional public road system, passable under all conditions, is necessary to meet the health, safety, social and business needs of the community. The present road system is adequate to serve the transportation needs of the community. Secondary Town Roads provide access to individual properties throughout the community. The maintenance of the network of Town roads, bridges, culverts and drainage systems involves considerable work and expense. In addition to Town employees and equipment, Londonderry hires qualified private contractors on an as-needed basis.

Excessive speed on Town roads is a safety hazard. Maintenance activities and road improvements should reflect the location of a road and help sustain the rural character of the Town. Unpaved roads can limit traffic volumes and excessive speeds on such roads. People seem to want and appreciate being informed when major roadway improvements are planned and that their opinions be considered in such plans.

Increased use of GPS by drivers has resulted in increased non-local traffic on local roads. Of particular concern has been the increase traffic on Middletown and Thomsonburg Roads.

Scenic Roads

No public highways in Londonderry have been designated as scenic under Vermont’s 1977 Scenic Highway Law. Londonderry is located on the Route 100 Scenic Byway, officially designated by the State of Vermont in 2013, to promote the heritage, scenery, and culture. This byway runs 120 miles along the eastern edge of the Green Mountains from Stamford in the south.

Public Transit

There is no fixed route public transit service that is available in the Town of Londonderry. Elderly and disabled transit service is provided to the town by Connecticut River Transit through “[Dial-A-Ride](#).” Neighborhood Connections provides informal transportation assistance. The community needs increased access to public transit services.

Pedestrian and Bicycle Facilities

There is very limited sidewalk in Londonderry Village and no sidewalk in Londonderry Village. The West River Trail provides non-motorized trail from South Londonderry Depot to Jamaica State Park. Currently, in the planning stage is the Flood Brook Initiative. This initiative is in the process of developing a system of off road paths that connect the Flood Brook School to the surrounding neighborhoods in Londonderry and Landgrove.

Suggested improvements to existing infrastructure include:

- Repair and enhancement the existing sidewalk in South Londonderry
- Bike lanes added to State Routes 100 and 11, where possible
- Make local roads bike friendly, where possible
- Add bike racks to the Depot
- Add pedestrian crossing to Utley Brook Bridge

As a part of the Town's transportation planning, there is a demonstrated need for beginning a system of multiple use pathways - like the existing West River Trail- suitable for pedestrians, equestrians and bicycle traffic. There is considerable sentiment for such a system to enable people to enjoy Londonderry's rural and scenic benefits and to travel safely throughout the Town. Of particular interest is the development of a pathway from Londonderry to South Londonderry Villages. There are efforts under way by private groups working in conjunction with the Town and Windham Regional Commission to develop such a network, including the further development of the West River Trail.

Parking

Parking in the villages is currently not adequate. Of particular concern is the availability of parking when the seasonal Farmer's Market is operating in Londonderry Village. There are no formal Park & Ride lots in the Town of Londonderry. The parking lot at the Depot is used as an informal Park & Ride lot. Parking should be further study to determine if there is a need for additional parking and formal Park & Ride lots.

Speed and Safety

Heavy truck traffic, high speeding vehicles, lack of pedestrian safety and traffic congestion are concerns of the Town that have been expressed by community residents. All of these concerns have a negative impact on the quality of life and potentially on the structural integrity of some of the Town's historical buildings. The Town realizes that a number of businesses are dependent on traffic along Routes 100 and 11 and that as the number of curb cuts or driveways increases, so does the rate of accidents.

According to the Vermont Agency of Transportation the Town of Londonderry has one high crash location at the intersection of Middletown Road and VT 100. This location is now a 4 way stop.

The Town has five high crash sections on VT 11 and one high crash section on VT 100⁶. These high crash locations and sections are determined by number of crashes, not severity.

Access management is a process for controlling access to roadways such that the function and safety of the local transportation system is preserved while reasonable access is provided for the development of land. Developing access management guidelines would improve safety conditions along Routes 100 and 11, promote desirable land use patterns, reduce traffic congestion and improve pedestrian safety.

Some techniques of access management that the Town could implement would be; requirements for minimum separation distance between driveways; minimum distance for driveways to be located away from intersections; driveways that serve more than one lot; parking areas that serve more than one lot/business; circulation/access between two lots; providing access from secondary streets rather than main arterials, where this is an option; development of parallel streets or frontage roads to provide access off the main street; and raised medians or islands that restrict turn movements.

Goals, Policies, and Actions

Goal 1: Provide and maintain a safe and efficient transportation network.

Policies

- 1.1 Focus on road maintenance and development activities and the efficiency, economy, safety and prevention of deterioration of the roads rather than supporting greater traffic volumes or speeds.
- 1.2 Solicit public opinion when planning significant maintenance or construction projects.
- 1.3 Maintain a balance of paved and unpaved roads to enhance to rural character of the Town.
- 1.4 Require that Land Use Regulations limit overall development density and discourage development in remote areas of the Town in order to minimize the need for more road construction and consequent increased cost to the Town.
- 1.5 Continue the existing policy of: (a) not maintaining, plowing or resurfacing Class 4 Town roads; (b) not paying for the cost of improving a Class 4 to Class 3 standards to serve new development; and, (c) only accepting new roads that meet specifications of the Town Road Ordinance.
- 1.6 Encourage and enforce speed limits appropriate to road surfaces and conditions in conformance with State regulations.

⁶ [Vermont Agency of Transportation \(VTrans\)– Office of Highway Safety. 2010 -2014 High Crash Locations Intersections and sections.](#)

- 1.7 Review proposed residential and commercial development for its impact on current roadways and future transportation needs. .
- 1.8 Require that Town road construction and maintenance activities preserve scenic and historic features of the landscape and avoid adverse impact on important natural features such as trees and stone walls wherever possible.

Actions

- 1.1. Reduce speed and truck traffic in village centers through the support of corridor studies and implementation of traffic calming solutions, where appropriate.
- 1.2. Identify and inventory scenic corridors and significant viewsheds that can be included in future town plans and protected by regulatory standards.
- 1.3. Review and assess the secondary effects of roadway improvements, bridge repairs, intersection changes, granting of state highway access permits, and any other pertinent transportation issues.
- 1.4. Develop an access management plan for the Town.
- 1.5. Work to establish program to review and update all road and bridge condition status annually and to develop prioritized recommendations for short and long term improvements with implementation schedule.

Goal 2: Promote alternative modes of transportation.

Policies

- 2.1 Promote development of a public transportation system such as vans, carpools, and multiple use pathways. Seek out grants to facilitate where possible.
- 2.2 Encourage that new construction or reconstruction of roads, when feasible, include accommodations for bicycles or pedestrians or other non–motorized means of transportation in order to ensure the safety of all users of the road.
- 2.3 Ensure that pathways are developed or marked to facilitate bicycle and pedestrian traffic between homes, businesses and public buildings and Town owned property.

Actions

- 2.1. Explore creative ideas related to parking lot, sidewalk development and snow removal.
- 2.2. Participate in local and regional efforts to evaluate and act upon the potential for developing a trail network to provide safe travel for bikers and pedestrians of all ages, reduce fuel consumption and connect community services and points of interest.

HOUSING

Housing Supply

While there is a variety of housing types and living options available in Londonderry, the predominant living unit is the single-family detached dwelling. A majority of Londonderry residents (85%) live in this type of housing. Buildings with three or more units (10.8%) are the next most prevalent accommodation type. Included in the balance are mobile homes (2.8%) and buildings with two dwelling units (1.4%).⁷

Most recent residential development has occurred in a dispersed development pattern. Londonderry's newer houses (154 between 1998 and 2014) have been built outside the Village center. Approximately one quarter of Londonderry's housing was constructed prior to 1960. These older housing units add to the Town's historic character but also can present a challenge to property owners. Having a high percentage of older housing is not unusual for a Vermont town. However, common problems in older housing include dated electrical wiring, poor energy efficiency, and the possibility of lead paint, a health issue particularly in homes with small children. Windham Housing Trust operates a regional rehabilitation program that provides loans for home rehabilitation for low-income households in Londonderry.

There are a total of 1,476 housing units in Londonderry, according to the 2010 Census. Of the total housing units, approximately 53.5% (790) of them are occupied year round. Owner-occupied housing accounts for 76.3% (603) of the occupied housing units with the remaining 23.7% (187) of occupied-housing units being renter-occupied.

Housing Affordability Analysis

Traditionally, housing is considered affordable when a household spends no more than 30 percent of its gross income on housing. Housing costs for renters include rent and utilities (heat, hot water, trash disposal, and electricity). Housing costs for homeowners include mortgage principal and interest, property taxes, property insurance and utilities. Since affordability is determined by monthly costs, interest rates, the age of the home, and maintenance costs are factored into the overall costs.

There are several factors that have contributed to these increased housing costs, including higher costs of labor and building supplies, costs related to building permits, and costs related to providing waste and water systems and utilities that meet applicable standards. An additional factor which made a significant contribution toward high housing costs in the late 1980's and that is still felt today is the inflationary effect caused by the demand for second homes in Vermont by non-residents.

⁷ Vermont Housing Data profiles, <http://www.housingdata.org/profile/>

The hourly wage a household must earn in order to afford a rental unit at Fair Market Rent⁸ and only pay 30% of its income towards housing costs varies depending on the number of bedrooms in a unit. Fair Market Rent in FY 2016, for a two bedroom unit in Windham County,⁹ is \$1,019 This monthly cost requires a renter to earn an hourly wage of \$19.60 (assuming a 40 hour work week) to afford. This would equal an annual income of \$40,760. The following table helps put the affordability gap for rental units in perspective.

Occupational Wage Estimates for the Southern Balance of Vermont, 2015

Occupation	Mean Hourly Wage	Mean Annual Wage
Recreational Workers	\$15.01	\$31,210
Cooks, Restaurant	\$14.37	\$29,890
Maids and Housekeeping Workers	\$12.12	\$25,210
Child Care Workers	\$12.20	\$25,380
Police and Sheriff Patrols	\$23.15	\$48,150
Carpenters	\$21.17	N/A
Elementary School Teachers	N/A	\$52,100
Healthcare Practitioners and technical occupations	\$38.74	\$80,570

Source: Vermont Department of Labor (<http://www.vtلمي.info/occupation.cfm>)

The cost of homeownership continues to rise. According to the Vermont Department of Taxes, the median purchase price for a primary residence in Londonderry in 2015 was \$200,000¹⁰ with an average purchase price at \$238,249.¹¹ To purchase a home at the median price, an annual household income of \$69,795 would be needed.¹² The median household income in Londonderry was \$49,967 a year according to the [2010-2014 American Community Survey 5-Year Estimates](#). In addition to home prices rising, homeownership costs are also increasing.

Forty two (42%) percent of the housing units are seasonal in Londonderry and they tend to be sold at higher prices than year round housing. In 2015 the median purchase price for a single family vacation residence in Londonderry was \$282,500. If vacation condominiums are included the median purchase price is \$187,450.

One subset of Londonderry’s population that may be struggling to afford housing in the community is elderly on a fixed income and single parent families. The 2010 Census indicated that Londonderry had 227 householders were living alone, 107 of whom were over the age of 65. There were 55 single parent heads of household in Londonderry in 2010, who had children living

⁸ Fair Market Rent is the 40th percentile and what is commonly used by US Housing and Urban Development’s (HUD). Median rent would be the 50th percentile.

⁹ HUD calculates county values only.

¹⁰ If mobile homes are not included in the median home purchase price is \$250,000.

¹¹ The median price of primary residences sold is the middle of selling price of all primary residences sold in ascending order for the given year.

¹² This has been calculated using the Vermont Housing Data online Home Mortgage Calculator (www.housingdata.org). It assumes a 5% down payment, average interest rates, average property taxes, average property and private mortgage insurance premiums, average closing costs, and that a homebuyer can afford to spend 30% of their income for housing expenses.

with them under 18 years of age. If each of these groups continues to show an increase could result in an increased demand for more affordable housing.

Future Housing Needs

Londonderry recognizes a persistent shortage of safe and sanitary housing that is affordable to buy or to rent. The economic and social effects of the current cost and affordability of housing in Londonderry are realized as:

- Outmigration of those seeking and unable to secure affordable housing.
- Loss of agricultural and forest land that is parcelized and sold by landowners who cannot meet current housing and related costs.
- Displacement of those unable to continue to afford their homes.
- Doubling up of families and others sharing space and costs to maintain housing, creating health, safety and quality of life issues.
- Deterioration of affordable housing stock due to poor maintenance by tenants and owners.

Homeownership Opportunities

U.S. Census data reveals that the Londonderry’s population increased by 3.5% and the number of owner-occupied housing (non-seasonal) increased by 14% from 2000-2010. It appears that the Town’s supply of owner-occupied housing has kept pace with population increases. However, the previous section showed that the housing may not be affordable for a majority of the population.

Town	2015 Median Purchase Price w/out Mobile Home included	2015 Median Purchase Price with Mobile Home included
Londonderry	\$250,000	\$200,000
Jamaica	\$77,000 ¹³	n/a
Peru	\$189,395	n/a
Weston	\$265,888	n/a
Windham	\$290,500	n/a
Winhall	\$310,000	n/a

What is striking about the housing in Londonderry is that the prices of homes are selling at higher prices than some of the surrounding towns. Although three towns have prices higher than Londonderry. This seems to indicate the Londonderry may not be attracting first time home buyers, which are traditionally young families. The long-term effect of this is that Londonderry could experience loss of young families’ ability to stay or move to the town.

Rental Housing

Census data indicate that the number of households in Londonderry has increased by 8% between 2000 and 2010. Census data for this time period also shows a 7% decrease in the

¹³ During the 1st 6 months of 2016 the median purchase price was \$145,000 and during 2014 the median price was \$142,000

number of rental units. This data suggests that rental housing development did not keep up with the growth of the number of households.

The 2010 Census puts Londonderry's vacancy for rental properties at 3.2%. This is lower than the Windham County vacancy rate of 5.4%. Vacancy rates for rental housing relative to rental rates are a determining factor in identifying the need for additional rental units. Generally, apartment supply and demand are considered in balance with a vacancy rate in the 5% range. Londonderry's rental housing market appears to not meeting the demand at this time. The need for short term housing for seasonal workers who serve the resort and tourism industries may be exacerbating the rental issue.

Housing for the Elderly

Persons aged 65 and above are considered as elderly population. In Londonderry, approximately 14% of the total households are elderly people living alone. Nationally, the elderly population is expected to grow and require special housing needs such as smaller housing units or community care units.

Given the aging population, it is apparent that the elderly population will be on the rise. To the extent that these individuals are able to live on their own and are not in need of significant care, their housing needs are not significantly different than the rest of the community. There is a noticeable increase in the special needs of people over the age of 75. The ability for an elderly person to stay in their home depends on connections to the community and services. Having a variety of housing options in the Villages may help address the housing needs of people as they age.

Future Trends

While single-family homes may continue to be the preferred type of housing, providing a mix of housing options will help meet the needs of various household types and income levels, attracting younger populations and allowing older populations to age in place. A recent report on national trends in real estate¹⁴ predicts that the large population of seniors in the United States may choose, or for financial reasons find it necessary, to age in place or move in with relatives. Housing developments predicts that younger age cohorts, from teens to early thirties, will look for housing that provides access to socially rich environments with a variety of outlets for community engagement. This age group is predicted to prefer housing that fosters community relations and has less reliance on personal space and boundaries.

In terms of meeting the needs of these two age groups, the towns villages could provide many preferred amenities. However, barriers to this type of development do exist in the form of high costs for bringing older buildings up to modern accessibility codes as well as a lack of public infrastructure in the villages.

¹⁴ *What's Next? Real Estate in the New Economy*. Urban Land Institute. 2011. <http://www.uli.org/report/uli-asks-the-tough-questions-about-the-future-of-real-estate/>

Goals, Policies, and Actions

Goal: To Ensure the Availability of Housing for all Residents of Londonderry.

Policies

- 1.1. Develop housing so as to maintain the historic settlement pattern of compact villages separated by rural countryside, with minimal impact on natural resources, open space, and important agricultural and forestlands.
- 1.2. Require a diversity of housing opportunities including affordable housing and housing for the elderly.
 - i. Require new or rehabilitated housing, including seasonal, to be constructed to meet health and safety minimum standards and coordinated with existing public services (water, sewer, and transportation networks).
 - ii. Require that all housing, both seasonal and permanent (including camps and part-time housing), be considered by the same standards.
- 1.3. Encourage retention, reuse and rehabilitation of existing buildings where possible in priority over new construction to help preserve the Town's rural character.
- 1.4. Encourage and promote groups and programs aimed at making available affordable new and rehabilitated housing on a sustainable basis. Utilize available support from regional and State agencies.
- 1.5. Support home ownership and property upkeep efforts of citizens.
- 1.6. Promote and support standards that allow and encourage increased densities for the purpose of providing affordable housing, while preserving the traditional character of older neighborhoods and villages.
- 1.7. Support the creation of accessory dwelling units within or attached to single family residences in order to provide affordable housing in close proximity to cost-effective care and supervision for relatives or disabled or elderly.
- 1.8. Support the goals and efforts of the Vermont Division of Historic Preservation.

Actions

- 1.1. Procure a professional report to identify areas where residential growth is appropriate.
- 1.2. Explore feasibility of development densities that are compatible with affordable housing and with traditional village development, specifically including increased housing unit densities and mixed residential and commercial uses.
- 1.3. Consider a practice to identify and require replacement of lost affordable housing units.
- 1.4. Advocate for state and federal programs and incentives to promote the creation of affordable housing development compatible with the Town, including a program of housing for elderly or other special populations.

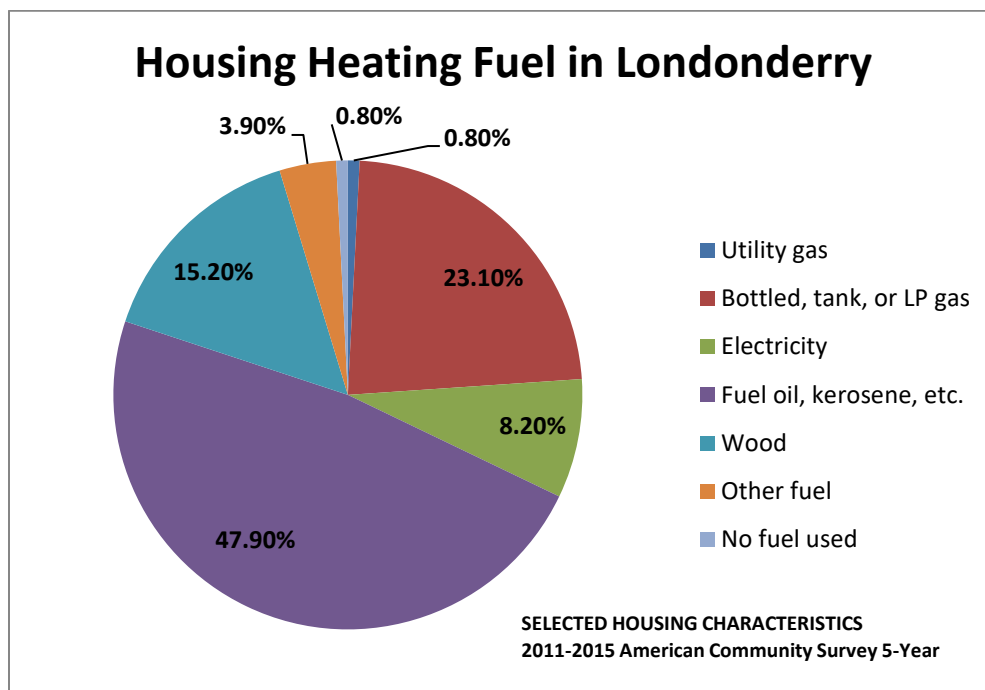
- 1.5. Conduct a survey of local housing market trends and develop affordable housing data, including an inventory of community needs for low and moderate-income housing.
- 1.6. Study the availability of rental housing in the Town.
- 1.7. Investigate the feasibility of establishing a local Housing Commission as allowed by VSA Title 24 §4433 to accomplish Actions 1, 4, 5, and 6 above.

ENERGY

Energy is an important factor in the economic, environmental, and social well-being of Londonderry. Because a large majority of this energy is imported from outside of the town and Windham Region, most of the money spent on energy does not directly benefit the local economy. Efforts to reduce use of energy sources from outside the Town or shift reliance to locally produced energy can strengthen the local economy.

Energy Use

Londonderry has a variety of energy resources available including electricity from public utilities, fuel oil, gasoline, propane and coal from local suppliers. Cordwood for space heating and cooking is abundant from local purveyors or may be cut by the individual. Many homeowners and businesses in the area use wood as a primary or secondary heat source. According to the 2011-2015 American Community Survey the residents of Londonderry primarily heat their homes with fuel oil/kerosene. Overall the cost for residential heating, in 2014, was \$1,867,437.



2014 BTUs by Fuel Type for Heating

<i>BTUs by fuel type</i>	Utility gas (Propane)	LP gas	Electricity	Fuel oil/kerosene	Wood	Other (including solar)
Owner	0	14,347,468,800	1,793,400,000	28,694,937,600	10,760,601,600	3,586,866,000
Renter	331,335,000	3,202,905,000	1,767,120,000	4,859,580,000	773,115,000	0
Total	331,335,000	17,550,373,800	3,560,520,000	33,554,517,600	11,533,716,600	3,586,866,000

	Utility gas	LP gas	Electricity	Fuel oil/kerosene	Wood	Other (including solar)
<i>Unit Conversion</i>	Gals Utility gas	Gals	kWh	Gals (heating oil)	Lbs (pellets)	kWh
Owner	0	157,664.5	525307.56	204,963.84	1229783.04	1050634.45
Renter	3,641.00	35,196.76	517609.84	34711.29	88,356	0
Total	3,641.00	192,861.26	1042917.4	239675.13	1,318,139.04	1050634.45

2014 Cost of Heating by Fuel Type

<i>Cost (in dollars)</i>	Utility gas	LP gas	Electricity	Fuel oil/kerosene	Wood	Other (including solar)
Owner	0	543942.53	77,272.74	563,650.56	207,525.89	154,548.33
Renter	12,561.45	121,428.82	76140.41	95,456.05	14,910.08	0
Total	\$12,561.45	\$665,371.35	\$153,413.15	\$659,106.61	\$222,435.97	\$154,548.33

In addition to heating, transportation accounts for the bulk of local energy use, and the 2011-2015 American Community Survey indicates that the average work commute for Londonderry residents is 17.8 minutes. Approximately, eight percent of working residents commute via carpool and seven percent commute via walking to work. As a rural state, Vermont continues to show a reliance on petroleum based fuels with a high number of vehicle miles traveled. For example, it is estimated that Londonderry residents in 2015 traveled 18,523,680 miles with an overall annual expenditure of \$1,667,130.

2015 Use and Cost of Transportation

# of Vehicles	1,323
Miles driven per year	18,523,680
Gallons of gas per year (average 25 mpg)	740,947
Gas expenditures per year (\$2.25 a gallon)	\$1,667,130

Energy use for the Town government can be quantified by reviewing the Town budget energy line items. Energy line items for selected recent years are shown in Table XX

Annual Energy Costs for Town Facilities and Services

Energy Line Item	FY05	FY10	FY15
Street Lights	11,609.92	13,381.58	15,088.68
Town Office Electricity	1,179.26	2,215.60	2,107.17
Town Garage Electricity	992.57	803.66	2,494.17
Town Hall Electricity	733.45	856.68	1,128.60
Transfer Station Electricity	1223.41	1,707.46	1,913.87
Town Office Fuel & Heat	n/a	3,578.10	2,451.78
Town Garage Fuel & Heat	n/a	7,200.08	2,598.42
Town Hall Fuel & Heat	n/a	956.74	1,194.12
Transfer Station Fuel & Heat	1,816.14	1,618.72	691.38
TOTAL	17,550.75	32,378.62	29,665.16

Source: Londonderry Town Reports

Conservation and Energy Efficiency

There is considerable opportunity for savings from various energy conservation and improved efficiency measures. Most of the energy use in Londonderry is for private uses (home heating, commuting, etc), but opportunities exist for improved efficiency and conservation for municipal buildings, the school and larger businesses in town. 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 help.

Most new construction in Londonderry is required to meet or exceed the Vermont Residential Energy Standards 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 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.

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 fluorescent, and using energy efficient appliances. The following programs are available to residents of Londonderry:

- 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's Heat Saver Loan Program. The Heat Saver Loan, available throughout the State of Vermont, is a way to finance thermal home energy improvements. These can include high-efficiency boilers and furnaces, heat pumps, air sealing and insulation, high-performance windows, solar hot water heaters, and central pellet boilers.

Local planning efforts that are sensitive to energy conservation issues can also promote development and settlement patterns that minimize transportation requirements (the primary use of petroleum products) and encourage land use that conserves energy. Zoning bylaws, subdivision regulations, and the Act 250 process are vehicles by which municipalities can promote energy efficient development at the local level. Energy can be distributed more efficiently through planning to concentrate housing and minimize dispersed settlement and by discouraging energy-dependent development that is distant from power generating centers.

Initiatives to reduce transportation costs are also viewed as energy conservation measures, especially within a state where the transportation sector is the major consumer of energy. Fuel efficient vehicles will use less gasoline and emit less pollution. Opportunities for adding charging stations in villages could enhance the use of electric vehicles for residents and visitors. The town could, as municipal vehicles need to be replaced, investigate opportunities for purchasing more energy efficient vehicles for their fleet.

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. As discussed in the transportation chapter expansion of trails, sidewalks and enhancement to road shoulders will encourage residents to walk and bike within Londonderry.

Potential for Local Energy Production

Energy resources within Londonderry are all renewable resources: biomass, solar, hydro, and wind. In order to reduce dependence on conventional energy sources, of which the costs and availability are outside residents' control, the use of alternative energy sources is encouraged. Net metering is one way for a customer to realize savings from his/her individual energy production. Under net metering, the customer is permitted to connect suitable generating equipment to the public power grid. During periods when more energy is generated than the property is using, the metered amount of electrical energy provided to the grid reduces electric bills. In order to net meter, the customer must receive a Certificate of Public Good from the Public Service Board.

- Each of the four forms of renewable energy cited, however, may conflict in whole or in part with other policies of this plan and must be carefully evaluated. Non-commercial energy generation facilities (i.e., net-metered facilities and facilities that are not connected to the regional power grid) generally pose the potential for fewer impacts than larger scale commercial/industrial projects. In Londonderry, these potential impacts include:
 - aesthetic impacts associated with facility siting in highly visible, high elevation areas;
 - wildlife impacts including direct impacts and secondary impacts, such as habitat fragmentation and disturbance
 - impacts to significant natural or cultural features in the vicinity
 - water quality impacts associated with development located at high elevations and on steep slopes and shallow soils;
 - quality of life and health impacts related to noise and lighting;
 - surface water runoff and soil erosion associated with site clearing and development, including road access;
 - safety hazards associated with blade speed, breakage and ice throw;
 - economic impacts associated with potential for diminished real estate values and regional tourism
 - and insignificant community benefit from such facilities
 - viability of developer, owner and management.

Due to the density of development at Londonderry's villages and larger developments (Magic Mountain and the shopping center) there is opportunity to utilize alternative energy sources to develop district heating or a combined heat and power system. Municipal facilities offer an opportunity, as appropriate, to produce solar energy that could offset the town's energy cost.

A brief description of each respective renewable energy source and associated issues and opportunities is provided below:

Biomass fuel. Wood is the town's most abundant, indigenous energy source. Wood has served as the principal source of heat for much of Londonderry's history, and still provides a relatively low cost heating fuel. Because Londonderry is predominately forested, wood could provide a locally sustainable energy supply well into the future. Excessive harvesting, however, if not properly managed, can cause increased storm water runoff and soil erosion, sedimentation, water pollution, and habitat loss. Woodlot management, and adherence to accepted state management practices for logging operations, reduce the adverse impacts of harvesting, and can enhance local timber stands to meet a variety of landowner objectives.

Burning wood may also result in local air quality problems. Late model wood stoves and large bio-mass (chip or pellet) heating systems, are generally cleaner than stoves commonly used in the 1970s and 1980s. Stoves must be air tight and meet EPA emission requirements. Though wood-burning technologies have improved, wood heat remains less convenient than oil or gas heat. If oil prices rise, more households may turn to wood as their primary heating source.

Flood Brook Union School, working with the Windham Wood Heat Initiative (WWH), will convert their oil boiler heating system to a pellet boiler system in summer 2017. Wood pellets are a locally sourced fuel source which burn with high efficiency from low-grade lumber. The fuel source is reliably stable in price, supports the local forest economy, a rich resource in this region, and is a carbon neutral source of heat. The school will receive 25% of the cost of the system installation from WWH through Vermont's Clean Energy Development Fund.

Opportunities also exist to work with Londonderry farms to produce biogas (methane) to be used as an alternative energy source.

Solar Power. The contribution of solar energy to Londonderry's total energy supply is likely to increase over the next few years. More structures are being sited, oriented and designed to incorporate passive solar construction techniques for space heating and natural lighting. Passive solar building design can significantly increase energy efficiencies and reduce costs. Technological advances, including the incorporation of photovoltaic components in roofing and siding materials, may make solar power an even more viable source of electricity in the near future. And, while some issues exist related to pollution and energy use associated with the manufacture of photovoltaic elements, solar is the cleanest potential energy source available to Londonderry in terms of local benefits and potential impacts.

Londonderry Community Solar farm, located on VT 11 is a project of Green Mountain Community Solar, will come on-line in 2017. Participants purchase one of the farm panels and receive a 30 year license to join the farm's net metering group. The participants panels' electricity net metering credit is allocated to the Green Mountain Power (GMP) account or, if not a GMP account holder, the credits are applied to a corporate, school district or non-profit organization and the participant receives 90% of your credits' value.

Potential locations for solar in Londonderry include town properties, parking lots, rooftops and retired/reclaimed gravel pits.

Hydropower. The West River and its tributaries once supplied water power for Londonderry's earliest industries. Today these industries are gone, although a dam still exists in the North Village. Hydropower is often cited as a clean energy source due to the lack of emissions, although the environmental impacts of dam construction, operation and management including the effects of changing water levels on river flow, stream habitat, and water quality, and on adjoining riparian areas may be significant, especially on a river of such ecological and recreational significance as the West River.

Wind Power. Wind power, like hydro and solar power, is an energy source that is not depleted with use. Wind power is now receiving a significant amount of attention statewide for utility and small-scale electrical generation. In contrast to wind power's potential as a naturally recurring

resource, commercial/industrial wind power generation facilities pose potential negative impacts.

The nature of commercial windmill development requires such facilities to be developed at higher elevations, generally along ridgelines with elevations of 2,000-3,500 feet. In Londonderry, the most feasible generation sites also correspond with the areas identified as being among the most important lands for protection – including the Town’s most sensitive ecological areas, most wild and unfragmented recreation land, and most prominent aesthetic landmarks, which are highly visible from designated natural areas, scenic roads, historic sites and historic districts. These lands have been included within the town’s Resource Conservation Overlay District since the current zoning bylaw was adopted in 2000. As with hydropower, scattered, small-scale generation facilities provide greater potential for local residents to benefit from wind energy without imposing the negative impacts described above on the community.

Energy Vision

There is a growing 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 disposal of radioactive wastes.

These pressures may significantly increase the cost of conventional energy sources within the next ten to twenty years. As a result, Londonderry will seek to establish reliable energy resources for townspeople and municipal operations, to hedge against the increasing volatility of petroleum prices and to reduce the environmental impact of our energy use. The role of clean, alternative energy sources will be expanded to allow the town to work towards a zero carbon footprint.

Goals, Policies, and Actions

Goal 1: Londonderry will seek to reduce total per-capita non-renewable energy consumption 40% by 2030 from a 2014/15 baseline.

Policies

- 1.1. Support appropriate renewable energy generation in Londonderry, including bio-mass using local wood supplies, solar, and dispersed, small-scale wind, solar and hydro-power sources.
- 1.2. Discourage overall any large-scale renewable energy generation and hydro-power facilities. Such facilities shall be prohibited within the Resource Conservation Overlay District and on the main stem of the West River, respectively.
- 1.3. Maintain the Town’s scenic resources and Resource Conservation Overlay District by protecting them from commercial energy generation and new transmission facilities.
- 1.4. Encourage any potential commercial energy facilities to be within the areas deemed most suitable as described in Londonderry’s Enhanced Energy Plan and maps to be developed by the town’s Energy Committee in 2017.

- 1.5. Commit to energy conservation in all Town properties, facilities and vehicles.
- 1.6. Support programs for insulation and weatherization of new and existing dwellings, especially for low and moderate-income households.
- 1.7. Encourage and support awareness programs on energy conservation and the availability and use of renewable and alternative fuels.
- 1.8. Support the use of energy efficient automobiles, appliances, heating units, lighting and other powered devices.
- 1.9. Encourage the use of local forest resources for heating and energy generation in a manner that sustains the resource base, maintains proper safety standards, and has minimum impact on the environment.
- 1.10. Promote land use and conservation policies that encourage ongoing forest management to maintain a local source of fuel-wood and local agriculture to maintain and increase the supply of locally produced food.
- 1.11. Encourage, through transportation policies, opportunities for walking, cycling and other energy efficient alternatives to the automobile.
- 1.12. Enforce compliance with the Vermont Residential Building Energy Code by ensuring that certificates are filed upon completion of construction.
- 1.13. Minimize the need for new facilities and reliance on the private automobile by directing development to designated concentrated development, and limiting such development in the least accessible areas of the community

Actions

- 1.1. Reestablish Londonderry Energy Committee in 2017. The Committee is charged with developing an enhanced comprehensive energy plan and maps to be incorporated into the Town Plan and adopted immediately.
- 1.2. Develop a plan for location of electric vehicle charging stations.
- 1.3. Conduct an energy audit on all town properties and other facilities and prepare an energy efficiency plan that emphasizes energy reduction and efficiency as facilities are upgraded, replaced, or expanded. Once audited implement Energy Plan.
- 1.4. Review, update and implement street lighting plan town wide using renewable energy as feasible.
- 1.5. Review current zoning bylaws to determine whether existing standards related to energy conservation, pedestrian and bicycle circulation, commercial and home-based businesses and energy efficient site design and building construction are adequate. Revise as necessary to require optimum feasible energy reduction and efficiency.
- 1.6. Explore the feasibility of wood chip power generation as a mode of energy production consistent with the Town's tradition of forest related industry and activities.

- 1.7. Support incentive programs for small scale net metering energy production and energy conservation for private use.
- 1.8. Examine the opportunities for providing home energy audits for residents and property owners so they may take action to conserve energy and reduce related costs.

COMPATIBILITY WITH OTHER PLANS

When Vermont's Growth Management Law, Act 200, was passed in 1988, Vermont set up a system for communities to work in concert with their neighbors, and with agencies of state government, to shape the future. As envisioned, decisions on local growth issues are to be made by the local communities; decisions of regional significance are to be made by the region's communities acting in consort. Town Plans are to be compatible with the regional plan and compatible with approved plans of other municipalities in the region.

Compatibility with Neighboring Town Plans

Londonderry shares borders with the Vermont towns of Jamaica, Winhall, Landgrove, Weston, Andover and Windham.

Jamaica: The Town of Jamaica adopted a Town Plan in 2012. Located to the south of Londonderry, the two towns are connected by VT100. Both towns are generally compatible with their land use designations along the border since both towns' designations require low density development and the importance of resource lands. Jamaica does not have zoning which lessens their ability to implement their proposed land use. Care should be taken in both towns to avoid over development along the VT 100 corridor that could lead to strip development.

Winhall: Winhall lies to the southwest of Londonderry. Winhall adopted their Town Plan in 2016. Both towns are generally compatible with their land use designations along the border since both towns' designations require low density development and the importance of resource lands. The plans both recognize the importance of protecting the shoreland of Gale Meadows Pond.

Landgrove: Landgrove lies to the northwest of Londonderry with a 2012 Town Plan adoption. Most of the area abutting Landgrove is designated Rural Residential-3, which provides for low density development and resource lands. The exception is a small area on either side of VT 11 is moderate density residential (Rural Residential -1). Landgrove on the other had has four different land use designations (CARE- Conservation/Agriculture/Resource, Rural Residential, Village and Commercial) and one overlay (Utley Flats). The Town should confer with Landgrove Planning Commission to assure that the adjoining land uses do not have an unexpected impact on Londonderry low density/resource land use designation.

Weston: Weston is located to the north of Londonderry. The Town Plan was adopted in 2016 Londonderry and Weston show compatible future land use districts along the border.

Andover: Londonderry shares a boundary in the northeast corner of Town. Andover adopted their Town Plan in 2013. Londonderry and Andover have compatible future land use districts along the border.

Windham: Windham is located to the east of Londonderry, with a 2015 adopted town plan. Generally the future land use districts are compatible except for the north east edge of the

border. Windham's land use is rural residential with low to moderate density development. Londonderry's land use is rural residential – 3, which requires low density development and the importance of resource lands. The Town should confer with Windham Planning Commission to assure that the adjoining land uses does not have an unexpected impact on Londonderry low density/resource land use designation.

Compatibility with the Regional Plan

The 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. As proposed, the Londonderry Town Plan is compatible with the Windham Regional Plan that was adopted in 2014.

MAPS

Existing Land Use

Natural Resources

Prospective Land Use

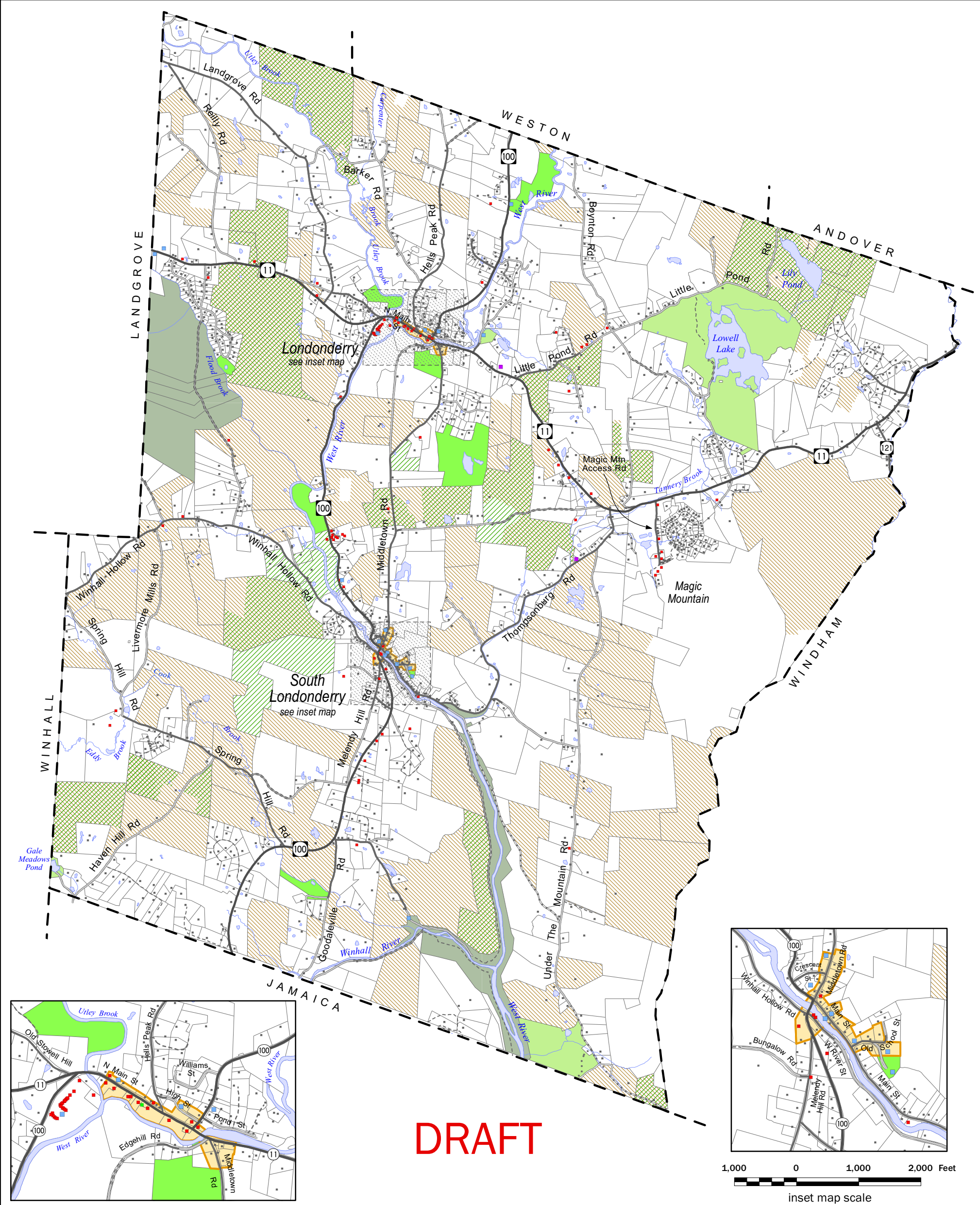
Transportation and Community Facilities

Water Resources

APPENDICES

Community Profile

Summary of Public Meeting



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Existing Land Use

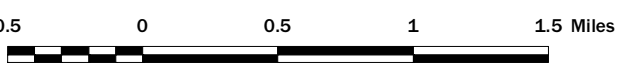
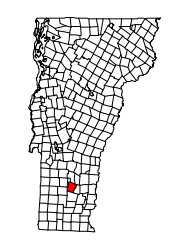
Town of Londonderry, Vt.

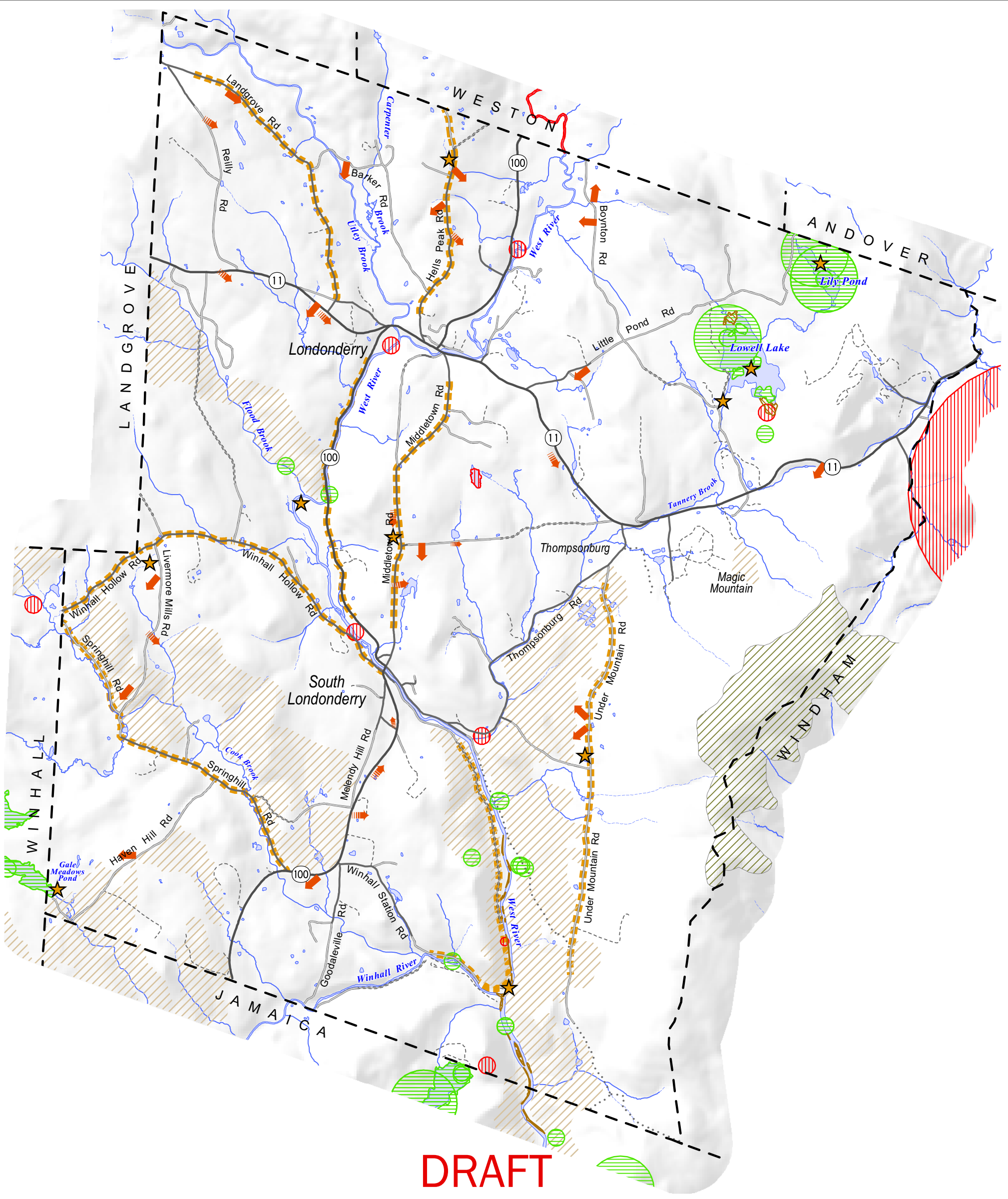
March 2017

- Commercial building
- Industrial building
- Public/Institutional building
- Residential building
- Parcel line (2006)
- Designated Village Center
- ▨ Conservation easement
- ▨ Parcel in Use Value Appraisal, c. 2011
- State land
- Town land
- Federal land

Data sources:

- Building locations are from the VGIS data layer ESITE, originating from the Vermont Enhanced 9-1-1 program, and are current to 2016. Building use codes are assigned by the town E911 coordinator.
- Parcel lines are from the Town of Londonderry's GIS parcel data, developed by Windham Regional Commission in 2006.
- Federal, state, and town lands, and conservation easements were extracted from the town's digital parcel data using the Vermont Protected Lands database (VGIS data layer PROTECTED_LND) as a guide.
- The boundaries of the Designated Village Centers were digitized by WRC based on guidance from the Town of Londonderry. Village Center Designation is administered by the State of Vermont, Department of Housing and Community Development.





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Natural Resources

Town of Londonderry, Vt.

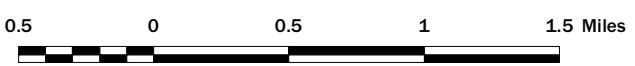
March 2017

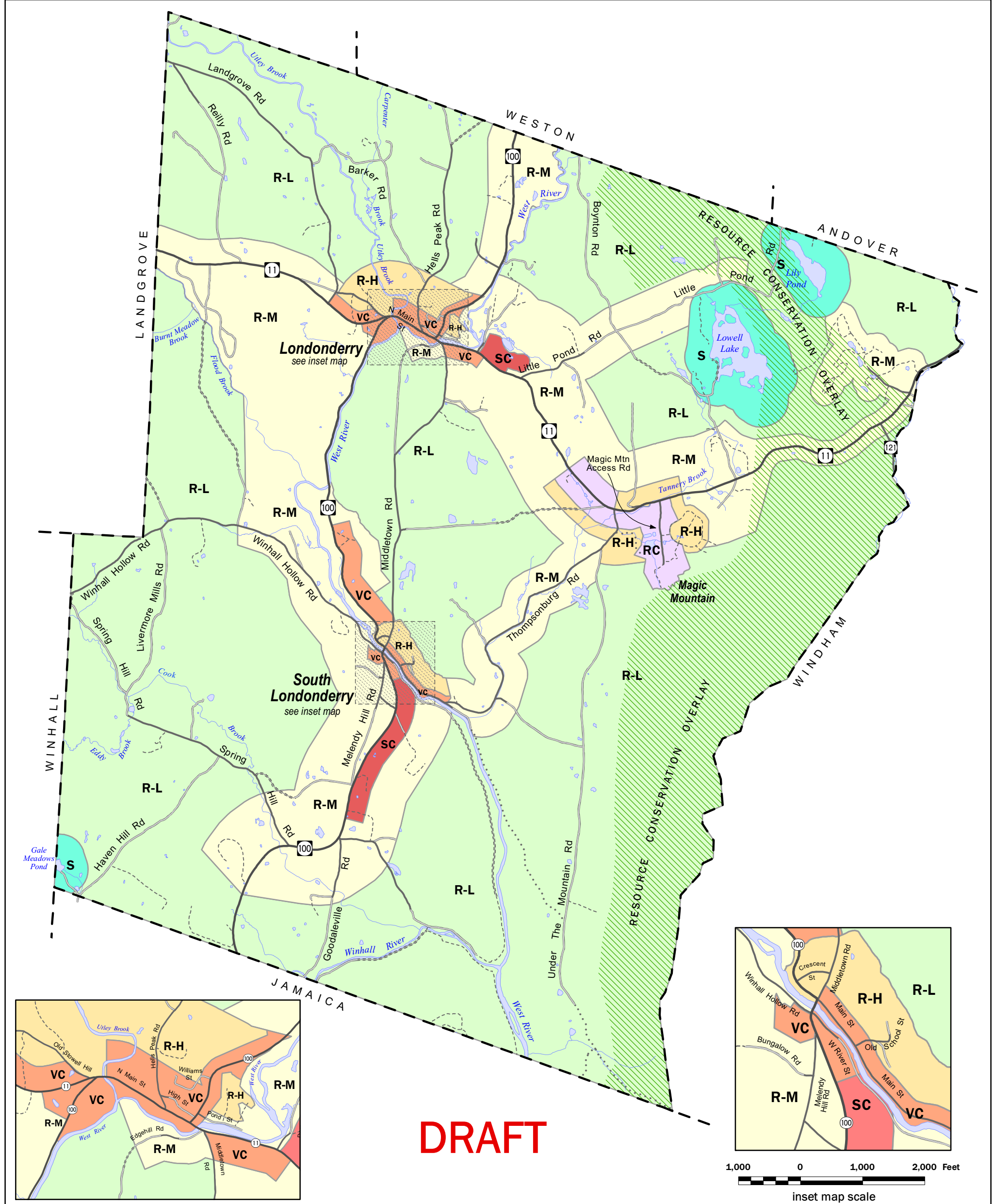
Scenic qualities:

- Local views
- Views within Londonderry
- Views beyond Londonderry
- Scenic resource
- Scenic road
- Endangered, threatened, rare, or uncommon animal
- Threatened, rare, or uncommon plant
- Significant natural community
- Deer Wintering Area
- Lands above 2500 feet

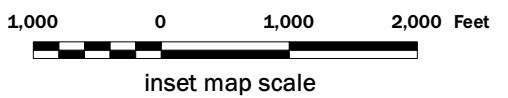
Data sources:

- Surface waters are from the Vermont Hydrography Dataset (VGIS data layer SWnnnnnnnn).
- Natural Heritage data are from VT Dept. of Fish and Wildlife, Nongame and Natural Heritage Program's Natural Heritage Inventory Database. This includes data on Rare, Threatened and Endangered Species and Significant Natural Communities database (VGIS layer RTENATCOM), and on uncommon species and other features (VGIS layer UNCOMSPOF), 2015.
- Scenic qualities were identified by the Londonderry Planning Commission.
- Deer wintering areas are from the VGIS data layer DEERWN. Source information is from the Vt. Fish and Wildlife Dept. (VFW), and dates back to the 1970's. Original data includes lines drawn on state highway maps, topographic maps, overlays to 1977 infrared photos, written material, and verbal information from VFW biologists. The data have been updated in selected areas only in 2006, 2008, and 2010.
- Lands over 2500 feet in elevation were digitized by VT ANR from 1:24000 USGS topographic maps. Note: all waters above 2500 feet are by default classified as Class A(1) waters.





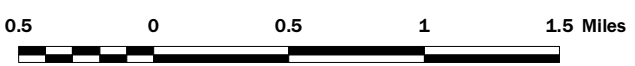
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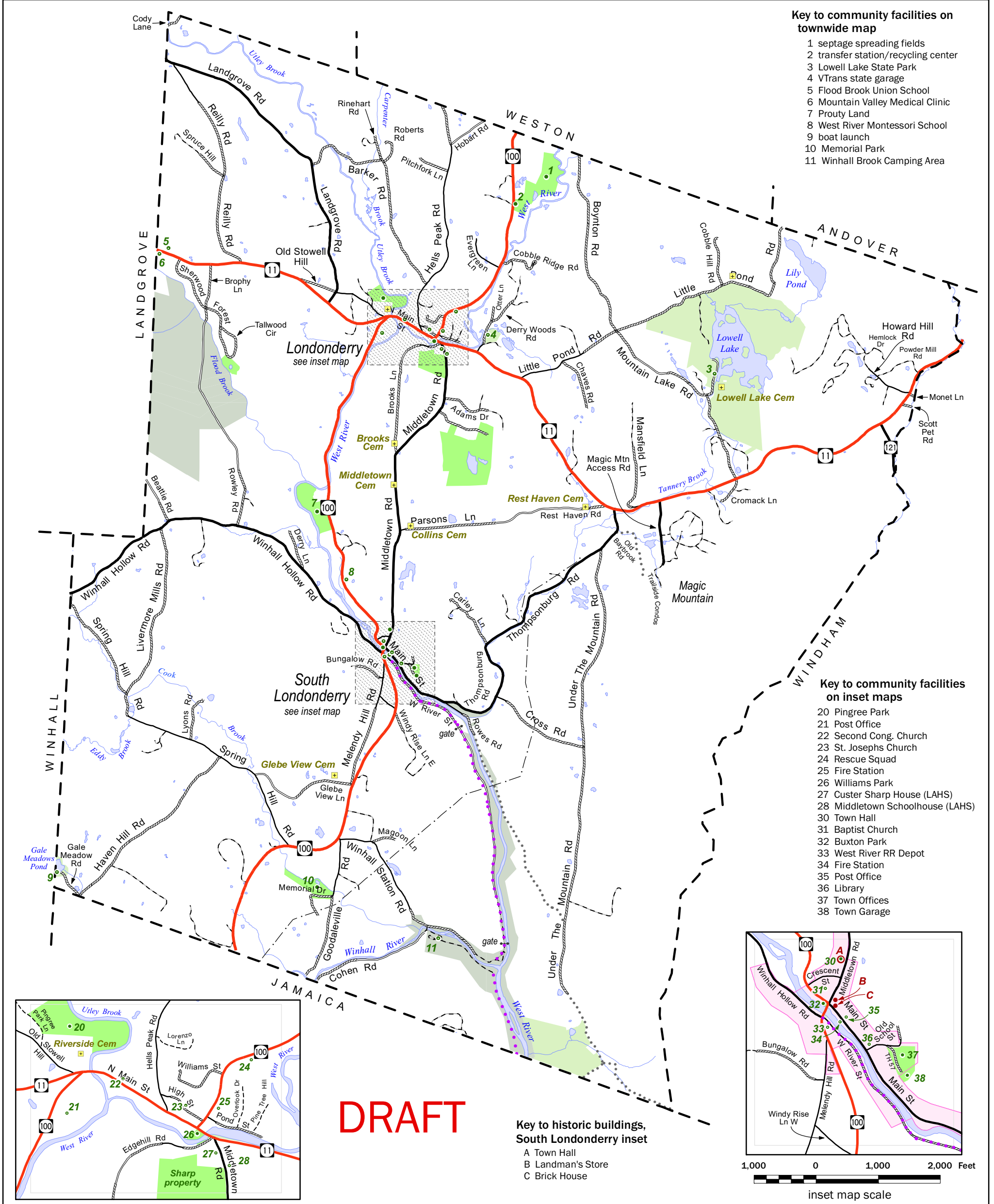


Prospective Land Use Town of Londonderry, Vt. March 2017

- RC Recreation Commercial
- SC Service Commercial
- VC Village Commercial
- R-H Village Residential
- R-M Rural Residential-1
- R-L Rural Residential-3
- S Shoreland
- Resource Conservation Overlay

Data sources:
- Prospective land use districts are designated by the Londonderry Planning Commission and described in the Londonderry Town Plan.

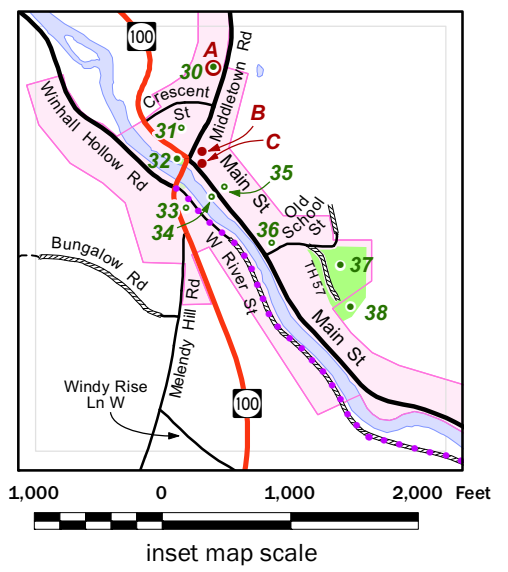




- Key to community facilities on townwide map**
- 1 septage spreading fields
 - 2 transfer station/recycling center
 - 3 Lowell Lake State Park
 - 4 VTrans state garage
 - 5 Flood Brook Union School
 - 6 Mountain Valley Medical Clinic
 - 7 Prouty Land
 - 8 West River Montessori School
 - 9 boat launch
 - 10 Memorial Park
 - 11 Winhall Brook Camping Area

- Key to community facilities on inset maps**
- 20 Pingree Park
 - 21 Post Office
 - 22 Second Cong. Church
 - 23 St. Josephs Church
 - 24 Rescue Squad
 - 25 Fire Station
 - 26 Williams Park
 - 27 Custer Sharp House (LAHS)
 - 28 Middletown Schoolhouse (LAHS)
 - 30 Town Hall
 - 31 Baptist Church
 - 32 Buxton Park
 - 33 West River RR Depot
 - 34 Fire Station
 - 35 Post Office
 - 36 Library
 - 37 Town Offices
 - 38 Town Garage

- Key to historic buildings, South Londonderry inset**
- A Town Hall
 - B Landman's Store
 - C Brick House

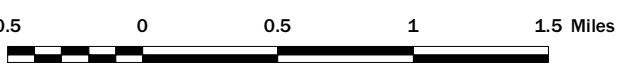
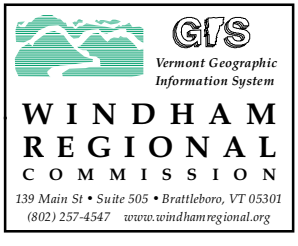
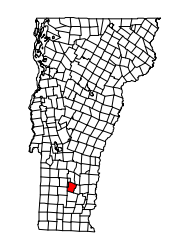


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Transportation and Community Facilities

Town of Londonderry, Vt.

March 2017

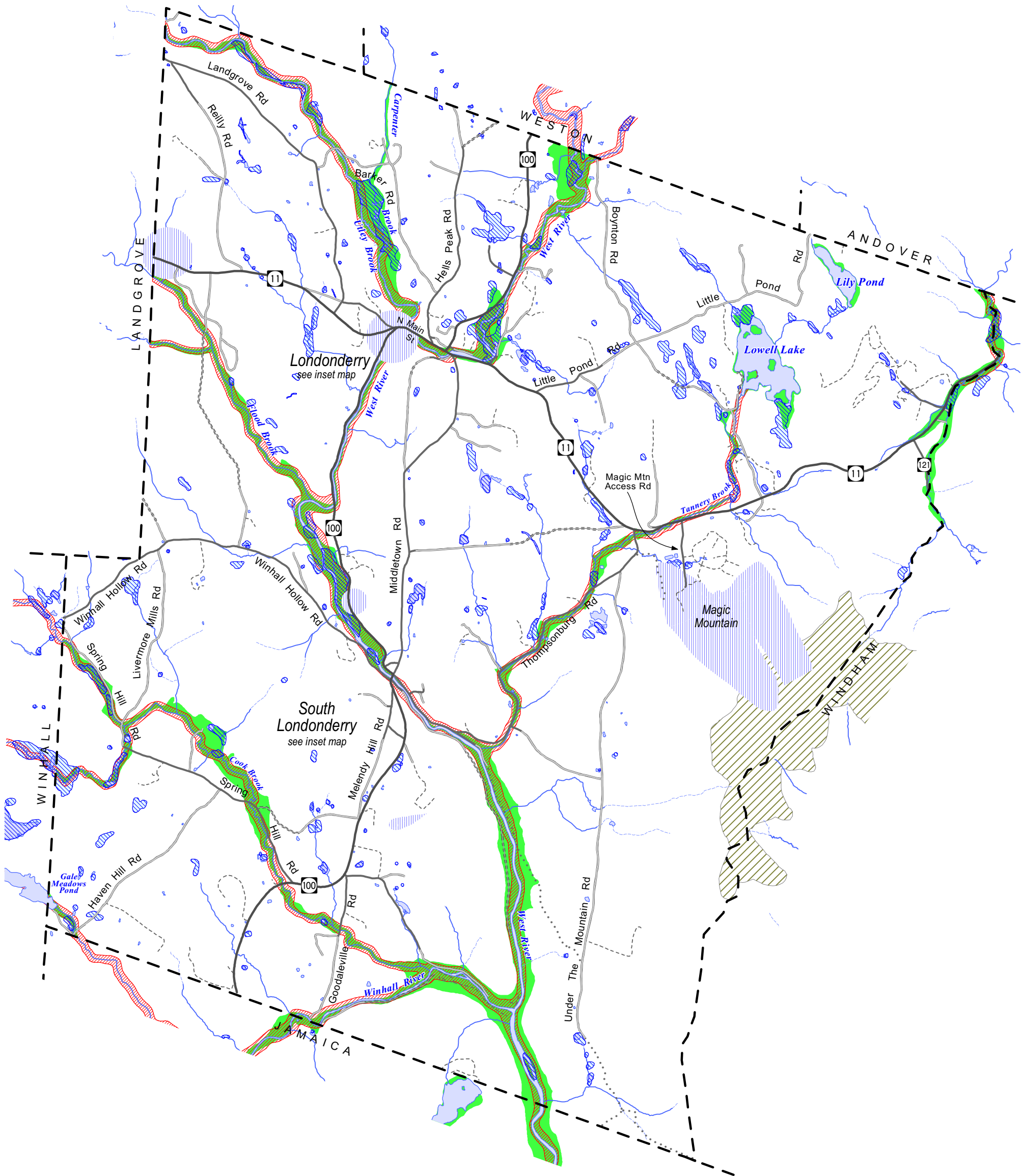


- Town-owned community facility
- Other community facility
- Cemetery
- Building on State or National Historic Register
- Historic district
- West River Trail
- State land
- Town land
- Federal land
- Electric transmission line

- 100 US & State Highway
- Class 2 town highway, paved
- Class 2 town highway, unpaved
- Class 3 town highway, paved
- Class 3 town highway, unpaved
- Class 4 town highway, passable
- Class 4 town highway, impassable
- Legal Trail
- Private road/drive
- Stream
- River or pond

Data sources:

- Highway data are from 2017 Vt. Agency of Transportation (VGIS data layer RDSnnnnn). Minor updates were performed by Windham Regional Commission in 2017.
- Electric transmission lines are from the VGIS data layer ELTRN, digitized from 1:5000 orthophotos.
- Community facilities were identified by the Planning Commission. Locations were extracted by WRC from E911 buildings data, orthophotos, and the town's digital parcel data.
- Federal, state, and town lands were extracted from the town's digital parcel data using the Vermont Protected Lands database (VGIS data layer PROTECTED_LND) as a guide.
- Historic buildings include those on the State and/or National Register that are in extant. At least two additional State Register listings are for historic buildings that are no longer in existence, and are not shown on this map.
- Historic district boundary is taken from a previous town plan map by Cartographic Technologies, Inc.
- Cemetery locations are from orthophotos and parcel maps.











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Water Resources

Town of Londonderry, Vt.

March 2017

-  Source Protection Area (ground water)
-  Perennial stream
-  Intermittent stream
-  Wetland
-  River corridor *
-  Special Flood Hazard Area
-  River, lake, or pond
-  Lands above 2500 feet

Data sources:

- Source protection areas include well head protection areas. Locations are from VT ANR Water Supply Division digital data. These data are current to 2016.
- The wetlands shown are those included in the Vermont Significant Wetlands Inventory (VGIS data layer VSWI).
- Lands over 2500 feet in elevation were digitized by VT ANR from 1:24000 USGS topographic maps. Note: all waters above 2500 feet are by default classified as Class A(1) waters.
- Special Flood Hazard Area data boundaries are from FEMA (Federal Emergency Management Agency) D-FIRM (Digital Flood Insurance Rate Map) data created on July 27, 2007.
- Statewide River Corridors are from VT ANR Rivers Program 2015 data (VGIS data layer RIVERCORRIDORS).
- Surface waters are from the Vermont Hydrography Dataset (VGIS data layer SWnnnnnnnn). The dataset was generated at a scale of 1:5000 and was developed using digital orthophotos, topographic maps, color infra-red aerial photography and other ancillary data sources.



* 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.

#	issue	topic 1	topic 2	topic 3
3	leadership - help town resolve issues	community facilities		
3	not meetings needs of young families	community facilities	economy	
2	town water/sewer	community facilities		
2	internet service	community facilities		
2	need for a more proactive town government	community facilities		
2	Tax ____ vs needs - balance?	community facilities		
2	develop prouty land for community use	community facilities		
2	summer music events in town	community facilities		
1	opiate abuse	community facilities		
1	village water and septic	community facilities		
1	community ride/events	community facilities		
1	cultural opportunities	community facilities		
1	continued expansion of town recreation activities	community facilities		
1	lack of community (them and us) involvement	community facilities		
1	build on cross country skiing to the reactreation as community asset	community facilities		
1	sustain local elem. school, k-8 plus highschool choice	community facilities		
1	abiquitious cell and broad band	community facilities		
1	safety net services fire/ ____ to age in place	community facilities		
1	them vs us	community facilities		
0	cell service	community facilities		
0	volunteer engagement	community facilities		
0	redundant fire/emergency services	community facilities		
0	diversified recreation need	community facilities		
0	access to state services	community facilities		
0	cost of administration	community facilities		
0	substance abuse	community facilities		
0	tax rates	community facilities		
0	community communication	community facilities		
0	crime	community facilities		
0	under use of public parks/lands - awareness	community facilities		
0	taxes	community facilities		
0	arson	community facilities		
0	policing	community facilities		
0	voting procedures/more inclusive	community facilities		
0	internet	community facilities		
0	education/support	community facilities		
0	community space /center	community facilities		
0	river walk	community facilities	transportation	
0	better comun. between orgs/ town non profit, etc	community facilities		
0	health center	community facilities		
0	rescue squad	community facilities		
0	stronger select board	community facilities		
	listing more			
	carry through			
0	address drugs	community facilities		
0	economic development - robust real estate, business presence	community facilities		
0	aging population - why adhere, why leaving	community facilities		
0	public ice skating on prouty land	community facilities		
0	sustainable local medical facilities	community facilities		
0	more community use of old town hall	community facilities		
0	expand on WRT run and like event	community facilities		
0	youth/teen center	community facilities		
0	low birth rate	community facilities		
0	vulnerable citizen care	community facilities		
	elementary school drug education improvement	community facilities		

#	issue	topic 1	topic 2	topic 3
6	attracting/keeping young people	economy	community facilities	
6	economic development/diversity - need more	economy		
4	economic weakness development	economy		
3	community identity	economy		
2	local economy	economy		
2	opportunities for young	economy		
2	Magic's success	economy		
0	lack of business in existing buildings	economy		
0	magic mountain/keep vital	economy		
0	high cost of living and limited living wage	economy		
0	appearance of villages and town proper buildings	economy	community facilities	
0	look better to promote business community spirit	economy		
0	greater diversity of workforce	economy		
0	magic mountain viable year round resort	economy		
0	persistent burned buildings (abandoned)	economy		
0	lack of self promotion of town as great place	economy		
	lack of attractions for tourists	economy		
1	functioning renewables - wind, solar, hydro	energy		
1	energy independence	energy		
0	proactive renewable energy siting	energy		
0	participation in resiliency group	flood resilience		
0	flood control/mitigation	flood resilience		
0	affordable housing - young people	housing		
0	aging hsq stock	housing		
0	zoning issues - enforcement	land use		
	lack of town center	land use		
0	water quality ag runoff	natural resources		
0	river pollution	natural resources		
0	protect mill pond	natural resources		
0	make "mill pond" a focal point at entrance to town	natural resources	land use	economy
0	development at lowell lake	natural resources	land use	
3	lack of connectivity	transportation	community facilities	
1	pedestrian infrastructure	transportation		
1	maintenance of roads	transportation		
1	bike/ped connections through town and other trails and places. Bike friendly roadways	transportation		
0	attention and transportation	transportation		
0	traffic	transportation		
0	thru traffic volume/transportation infrastructure	transportation		
0	bike paths	transportation		
0	traffic control - need	transportation		
0	dangerous intersections	transportation		
0	sidewalks for villages	transportation		
0	transportation - village bus service for people who can't drive	transportation		
0	ordinances for speed	transportation		
0	lack of public transportation	transportation		
0	condition of local roads	transportation		

#	Future	Topic 1	Topic 2	Topic 3
5	town wi-fi	community facilities		
2	More community integration	community facilities		
2	"Project Londonderry"	community facilities		
1	Community events, fairs, talks, theatre, music, wine 880, apple fest.	community facilities		
1	Health/mental health services - adequate	community facilities		
1	Community center	community facilities		
0	Higher level education opportunities - extension - tech center	community facilities		
0	Year round farmer's market	community facilities		
0	Inviting community space	community facilities		
0	Continued safe community	community facilities		
0	High speed internet	community facilities		
0	Small scale farming community garden	community facilities		
0	Continue to support school	community facilities		
0	Support systems for all income groups	community facilities		
0	More harmony less "I" more "We"	community facilities		
0	Positive focus on community	community facilities		
0	Let majority decide - people show up	community facilities		
0	Town where people show up and care to participate	community facilities		
0	More public work and staff to care for parks, beautification, town lands - Not just roads	community facilities		
0	Vibrant progressive community	community facilities		
	Be respectful of it's history			
	Be welcoming to all			
0	mixed culture (young and old/ local and tourist)	community facilities		
0	hiking & biking paths	community facilities	transportation	
0	activities for kids/families and strong schools	community facilities		
	More vibrant villages /	economy		
6	Better/more economic - sense of community	economy		
5	Magic mountain - healthy, vibrant	economy		
3	strong support for local business and organizations	economy	community facilities	
1	Tourism - Eco - Appropriate - Good match	economy		
1	A more attractive town	economy		
1	Destination location/town	economy		
0	Farm-to-table café's	economy		
0	Younger population	economy	community facilities	
0	Succeed just being in the service industry	economy		
0	Robust real estate market	economy		
0	Thriving socially, economically, visually	economy	community facilities	land use
0	Locally owned businesses that thrive	economy		
0	Be able to get everything you need in a more ample supply (selection and quantity)	economy		
	A) Entertainment industry	economy		
	B) Brewery	economy		
	C) Healthcare	economy		
0	Beautification of towns to make it attractive for people to stop and move about	economy	community facilities	
	Paint buildings	economy	community facilities	
	I.E. Chester, Woodstock, Brandon	economy	community facilities	
	Make citizens proud	economy	community facilities	
0	More ethnic/affordable restaurants	economy		
0	Developed ski mountain (Magic)	economy		
0	Anchor business (local/tourist)	economy		
1	Alternate energy sites	energy		

#	Future	Topic 1	Topic 2	Topic 3
7	Maintain rural characteristics	land use		
1	Maintain open lands	land use		
0	Maintain rural identity - simplicity	land use	economy	
0	21st century ammenities and preserve rural character	land use		
0	Developed proudy property for mixed use	land use		
1	Bike paths and trails	transportation		
1	Pedestrian byways	transportation		
0	Side walks for safety	transportation		
0	Improved parking - IGA, Tanning, Butcher	transportation		

#	achieve	topic #1	topic #2	topic #3
11	Incentivize young people involvement in town in all aspects			
	provide reasons to volunteer	community facilities		
8	more community events	community facilities		
4	Inventory - "people pages" human resources	community facilities		
3	Better use of town resources/assets	community facilities		
3	Create opportunities for investors to assist our town	community facilities		
3	park movies and other events	community facilities		
2	More community involvement - volunteerism	community facilities		
2	Ask people to volunteer, grants, committees	community facilities		
2	Broader community involvement/participation	community facilities		
2	Futher study water/septic issues and solutions, including funding	community facilities		
2	make prouty park a real park	community facilities		
1	early successes - culture of change	community facilities		
1	Form working groups to engage in planning	community facilities		
0	civic involvment	community facilities		
0	develop community hub	community facilities		
0	promote school choice as a tool to recruit young families	community facilities		
0	use grant funding to address various issues. ID and target grant resources for future projects	community facilities		
0	pose 3 questions to local kids	community facilities		
0	engage next generation	community facilities		
0	Town wide retreat for coming together	community facilities		
0	community dinners	community facilities		
0	use local resources	community facilities		
0	more than 4th of July - winter carnival - town wide - including all	community facilities		
0	concerts	community facilities		
0	Cable together existing community resources	community facilities		
4	town promotion/advertisement	economy		
2	Tourist destination - brand "londonderry vt"	economy		
0	Encourage people to shop locally	economy		
0	Support "buy local" - expand farm to table arts co-op	economy		
0	get people to are here to be more successful	economy		
0	develop plan for affordable business space	economy		
0	local business team to _____ development	economy		
2	enforce current/existing zoning regulations	land use		
0	Grant program to subsidize for tear downs	land use	economy	
0	zoning bylaw	land use		
0	Seek out grants for development of village centers. Specifically - pedestrian pathways	transportation	economy	land use