

Municipal Plan

For the Town and Village of Ludlow, Vermont



DRAFT June 7, 2019

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Contents

1 Introduction.....	1
1.1 Purpose.....	1
1.2 Public Process.....	1
1.3 Document Organization.....	1
2 Vision Statement.....	3
2.1 A Vision for Ludlow.....	3
2.2 Key Themes from Public Forum.....	3
2.3 Goals.....	4
3 Role in the Region.....	5
3.1 History.....	5
3.2 Relationship to Plans in Adjacent Towns and Region.....	5
Ludlow’s Neighbors.....	6
Regional Plan.....	7
3.3 Population Trends.....	8
Seasonal Population.....	8
How the Municipal Plan Relates to Development Trends.....	9
4 Landscape.....	10
4.1 Soils and Topography.....	10
4.2 Farms and Forests.....	10
Forest Resources.....	10
Agricultural Resources.....	11
4.3 Earth and Mineral Resources.....	11
4.4 Water Systems.....	11
Surface Waters.....	11
Groundwater.....	16
4.5 Wildlife Habitat.....	16
4.6 Air Quality.....	17
4.7 Scenic Features.....	17
Ridgelines and Scenic Resources.....	17

4.8 Landscape Policies 18

5 Community 22

5.1 Homes 22

 Household Characteristics 22

 Housing Characteristics 23

 Subsidized Housing 23

 Housing Affordability 24

 Equal Treatment of Housing 24

5.2 Economy 25

 Present Economic Conditions 25

 Future Economy 26

5.3 Transportation 28

 Roads & Highways 28

 Parking 30

 Pedestrian & Bicycle Facilities 30

 Public Transportation 31

 Rail Service 31

 Air Transport 32

5.4 Utilities and Facilities 32

 Water and Sewer Services 32

 Electrical Services 33

 Communication Services 33

 Solid Waste Disposal Services 34

 Recreational Services and Facilities 34

 Health and Safety Services 34

5.5 Education 35

 Child Care & Early Education 36

5.6 Energy 36

5.7 Community Policies 37

6 Plan for our Future 41

6.1 Existing Conditions 41

6.2 Desired Future Conditions 42

VILLAGE OF LUDLOW 42

TOWN OF LUDLOW 43

Special Considerations..... 45

Timing of Development..... 45

6.3 Policies to Guide Ludlow’s Future Development..... 45

7 How to Make it Happen..... 47

7.1 Action Plan..... 47

 High Priority 47

 Medium Priority 48

 Low Priority 51

7.2 Implementation Tools 52

 Non-Regulatory Implementation Tools 52

 Regulatory Implementation Tools 52

 Other Tools 53

 Funding Opportunities 53

1 Introduction

This Municipal Development Plan (or “Municipal Plan”) serves both the Town and Village of Ludlow, and is adopted by both the Village Trustees and Select Board.

A municipal manager administers the affairs for the Town and Village of Ludlow. This position broadens the scope of community services and helps toward implementation of municipal goals and objectives. At the annual Town Meeting, members are elected to serve staggered terms on the five-member Board of Selectmen representing the legislative body. These Selectmen provide legislative direction for the Town.

The Village District is an incorporated area of the Town, independently directed by a three-member Board of Trustees. An annual meeting is held to transact business pertaining directly to the legislative affairs of the Village. (See Appendix C for a summary of the municipal governmental structure.)

1.1 Purpose

In accordance with 24 V.S.A., Chapter 117 (the Vermont Municipal and Regional Planning and Development Act, or “the Act”), the purpose of the Ludlow Municipal Plan is “to guide future growth and development of land, public services and facilities, and to protect the environment” in the best interest of the citizens of the Town and Village of Ludlow. This Plan is intended to:

- ✓ Include all elements required by [24 V.S.A. §4382](#);
- ✓ To be consistent with state planning goals in [24 V.S.A. §4302](#);
- ✓ Compatible with approved plans of other municipalities in the region;
- ✓ Compatible with the Southern Windsor County Regional Plan; and,
- ✓ To meet the enhanced energy planning requirements in [24 V.S.A. §4352](#).

This Plan will be updated every eight years or more often in order to meet the changing needs of the community. Updates to the Plan shall be prepared by the Planning Commission and adopted or amended by the Selectboard and Trustees in accordance with 24 V.S.A., Chapter 117, Subchapter 5.

1.2 Public Process

It is the intent of the Town and Village of Ludlow to encourage citizen participation in the preparation of this Plan. To do so, the Planning Commission has held a number of public events to gather input to inform this plan including, but not limited to, a community visioning session in June 2017, a March 2018 public forum, and July 2018 public forum. See Appendix G for a summary of the input received from these public outreach initiatives.

1.3 Document Organization

Ludlow’s Municipal Plan was significantly re-organized in 2018 with the goal of making it more concise and easier to read. The document is organized into the following sections:

1. Introduction
2. Vision Statement

3. Role in the Region
4. Landscape
5. Community
6. Plan for Our Future
7. How to Make it Happen

There are also a number of Appendices incorporated into the back of this Plan, which contain detailed information that serve as critical components in the preparation of this plan. The Appendices generally include valuable data and information that this Plan draws upon and references, they include:

- A. Glossary
- B. Maps
- C. Municipal Governmental Structure
- D. Community Facilities Inventory
- E. Community Data Profile
- F. Local Act 250 Review
- G. Public Outreach Summary
- H. Enhanced Energy Plan
- I. Implementation Matrix

2 Vision Statement



Figure 1: This image shows Ludlow's Village Center surrounded by a rural countryside. Photo by Tom Johnson.

2.1 A Vision for Ludlow

Ludlow is a small New England town that exhibits a pride of place and sense of community characterized by a healthy natural environment including forested mountains, an agrarian landscape and a historic village settlement.

Ludlow wishes to foster a strong and diverse economy while, at the same time, maintain its picturesque nature including open meadows, sustainable forests, farms, scenic mountains vistas and outdoor recreation. The town and village promotes increased housing for residence, safe roads, good schools, public services, and recreational opportunities with clean waters, mixed wildlife habitat, and undeveloped land.

2.2 Key Themes from Public Forums

A lot of great comments were made at the March 20, 2018 public forum. For the purposes of this Plan, the following summarizes the key themes that emerged when synthesizing all of those public comments.

We want to attract more year-round residents, especially families with children. With this in mind, we will focus our efforts to improve upon the things that make this a great place to live.

Ludlow is a destination for outdoor recreation (skiing, golf, lakes) with a number of other great assets (abundance of natural resources, architecture, history, arts, cuisine). We will strive to maximize the tourist's experience, increase visitation.

We strive to be a business-friendly community. We recognize that existing employers are very important to the economy, such as IMERYYS, JELD-WEN, Clear Lake Furniture, and Okemo Mountain Resort, to name just a few. We seek to diversify the economy and focus on bringing in a few smaller-scale high-tech businesses.

We are focused on revitalizing the Village Center, which involves enhancing the streetscape, making it a pleasant and safe place to walk, investing in existing buildings, filling empty storefronts, slowing traffic down, and making it the place where both residents and tourists want to go.

We prioritize those things that make Ludlow a great place to live. This involves providing good homes (diversity of choices/types, quality that residents can afford), a variety of recreation facilities/opportunities, great telecommunication service, access to a quality education, excellent municipal service and facilities, and a vibrant village that has many things to do.

2.3 Goals

Ludlow embraces the key themes in Section 2.2 and identifies the following goals to achieve our vision.

1. Maintain and grow a population consisting of residents and families of all incomes, ages, and types, and provide for their health, safety, education and housing.
2. Protect and preserve scenic and historic features, open spaces and improve the quality of air, water, wildlife and land resources.
3. Allot sufficient space in appropriate locations for residences, commercial businesses, recreation, and agriculture in order to meet the needs of the town.
4. Encourage a strong, stable and diverse economy that provides satisfying and rewarding job opportunities and contributes toward a strong sense of community.
5. Maintain the Town's characteristic pattern of settlement typified by the Village of Ludlow, recreational and resort areas, and clustered residential developments separated by rural countryside.
6. Encourage the efficient use of energy and the development of renewable energy resources.

3 Role in the Region

3.1 History

Benning Wentworth, Governor and Commander-in-Chief of the Province of New Hampshire granted Jared Lee and 65 other proprietors Ludlow's charter on September 16, 1761.

When it was first chartered, the town contained approximately 35,000 acres, but by the time it was officially organized, in 1792, approximately 12,000 acres had been taken from the west side of Ludlow (Okemo) Mountain, including Jackson's Gore, and about 3,400 acres from the town of Wallingford, to form the town of Mount Holly. Today, the present area of Ludlow is approximately 23,000 acres.

Although Ludlow started out as an agricultural community, it became a center for manufacturing in the late 1800's. Ludlow was a center for commerce, education and community activity. The railroad provided a link to the rest of the state and the country. This allowed Ludlow's manufacturing industry and textile plants to grow and become successful.

In the 1940s, Ludlow's primary economic base involved textile mills. As the market for textile products declined, public access to Ludlow improved. In 1956, ski facilities were developed and later improved on Ludlow (Okemo) Mountain. The Ludlow plant operated by GE was closed in the 1970s after the flood. Tourism and recreational activities began to take on more and more significance as a source of income to support the community.

The village center is currently much like it was historically, serving as the home of government services, restaurants, apartments and other similar uses. Many of the major roadways and the railroad parallel rivers that run through Ludlow. A rural countryside predominates in other parts of town. Forests now cover many of the hills that were historically cleared for farming.

Today Ludlow is a destination for outdoor recreation (e.g. skiing, golf, lakes). As such, tourism-based businesses are very common, such as restaurants, property management and construction trades. Second homes are very common, especially on the mountain adjacent to ski trails, as well as along ridgelines in other parts of town that have views of the ski trails. A number of other businesses are also very important (e.g. IMERYS, JELD-WEN, Clear Lake Furniture). Seasonal and year-round homes are clustered around the waters in the Lakes District.

3.2 Relationship to Plans in Adjacent Towns and Region

In order for local land use planning to be effective, it must be done with the understanding and consideration of land use and development trends in surrounding municipalities. Local goals can only be reached if they are identified and pursued within the context of a community's place in the surrounding region.

- Ludlow shares many administrative boundaries with surrounding communities:
- Ludlow is in Windsor County, but adjacent to Rutland County
- Within District 2 of the Environmental Commission, but shares boundaries with Districts 1 and 3

- Served by Vermont Agency of Transportation Maintenance Districts 3, but is next to Districts 2 and 4
- Within Vermont State Police Troop D, and is next to Troop C
- Ludlow is within the Southern Windsor County Regional Planning Commission's area, but shares boundaries with Rutland Regional Commission, Two Rivers/Ottawaquechee Regional Commission, and Windham Regional Commission

This multitude of jurisdictional boundaries emphasizes the added need for coordination and cooperation, which cross-traditional governmental boundaries.

Ludlow's Neighbors

The towns of Mount Holly, Plymouth, Reading, Cavendish, Chester, Andover and Weston surround Ludlow. The major resort communities of Killington, Londonderry, and Winhall are also within short traveling distances, as is the State's fifth largest city, Rutland.

To varying degrees, surrounding communities share common planning concerns that may be expressed in land use regulations. Based on a review at the time of preparing this document, Ludlow's Municipal Plan is compatible with approved town plans of surrounding municipalities:

Andover Town Plan: The plan designates future land use categories of Conservation and Rural Residential along the boundary with Ludlow. These designations are compatible with Ludlow's Rural Residential and Aquifer Protection Overlay.

Cavendish Town Plan: Their current draft plan designates most of the land area along the boundary with Ludlow as Forest which is generally consistent with Ludlow's Rural Residential area. Cavendish also has a small Recreation designation for Fletcher Fields, and Industrial designation for the existing land use activities along the border and the VT Route 103 corridor.

Chester Town Plan: The public hearing draft plan designates all land along the short boundary with Ludlow as Conservation, which is compatible with Ludlow's Plan.

Mount Holly Town Plan: It designates most lands along the boundary with Ludlow as Conserved Lands and Rural Residential, which appear to be compatible. While their plan is not explicitly clear, it appears that the Commercial area on Ludlow (Okemo) Mountain reflects the Okemo Mountain Resort operations.

Plymouth Town Plan: Both Ludlow and Plymouth's plans reflect a small node for the hamlet of Tyson, which straddles the town line. The remainder of the boundary is generally compatible as it calls for similar Conservation and Rural Residential categories.

Weston Town Plan: Weston's Rural-Low Density category is compatible with Ludlow's Rural Residential.

Development in Ludlow and surrounding communities occurs primarily along the major transportation corridors of VT Routes 103 and 100. Development has also been influenced not only by Okemo Mountain Resort and local lakes, but also by the proximity of several other ski resorts and recreational lakes. Resort and second home development, and the associated growth

in the service sector, will continue to influence land use patterns in Ludlow and surrounding communities.

Okemo Mountain Resort and its surrounding development, is viewed as the primary generator of traffic on VT Routes 103 and 100. However, a recent traffic study identified fifty-two percent (52%) of all traffic in Ludlow as pass-through traffic during normal business hours, which is outside local control or regulation. These outside influences will continue to increase the amount of seasonal traffic using these corridors, demanding greater coordination.

To plan for the harmonious development of the region, and to work with neighboring municipalities and jurisdictions to address issues of mutual concern the Town and Village of Ludlow should:

1. Protect traditional land use patterns, as identified throughout this Plan - not only historic patterns within Ludlow, but also regional patterns which have helped define Ludlow's unique character.
2. Reinforce Ludlow's role as a primarily rural community, with a compact village core of mixed residential, commercial, and industrial development, but which also hosts a thriving resort center.
3. Develop regional solutions to problems that transcend town, regional, and jurisdictional boundaries.
4. Continue to participate in State and regional efforts to study the US Route 4 and VT Routes 100 and 103 travel corridors.
5. Participate in discussions with surrounding District Environmental Commissions, regional planning commissions, and other municipalities, seeking equity in traffic impact mitigation along the VT Routes 103 and 100 corridors.

Regional Plan

The 2018 Regional Plan provides broad guidelines for planning, coordination, and review of the natural and economic features of southern Windsor County. The Regional Plan, which also includes the Regional Transportation Plan, is a companion document to the Municipal Development Plan, providing a broader framework and context for local planning efforts. The Municipal Development Plan should support and complement the land use and development goals of the Southern Windsor County Regional Plan.

The Regional Plan identifies Ludlow's downtown as a Regional Center, which is immediately surrounded by a medium-density neighborhood. A "Regional Center" is defined as a central business district that provides regional services, shopping and employment opportunities. They are served by infrastructure – including but not limited to urban road networks, sidewalks, public water and wastewater systems – that support the highest densities in the Region. A high-density mix of uses such as commercial, residential, civic, light industrial and public gathering spaces should be concentrated in these areas. Multi-storied buildings that mix retail uses with residential and/or professional offices are typical.

The Future Land Use map and categories in this Municipal Plan are consistent with the state planning goals and compatible with the Regional Plan. This Plan discourages strip development

and promotes a traditional compact settlement pattern in the Village surrounded by a rural countryside.

3.3 Population Trends

Ludlow's 2010 population was 1,963, including 811 for the Village of Ludlow (U.S. Census Bureau). Ludlow's population in 2015 is 2,140, with 944 in the Village, according to the American Community Survey data (US Census Bureau, ACS 2015 5-year). After two decades of modest decline beginning in 1970, Ludlow's population experienced growth between 1990 and 2006. This growth rate was higher than neighboring communities. However, population declined following 2006, likely influenced by the recent housing bubble and economic decline. Recent trends suggest modest growth within the last few years; however, data from the ACS and the decennial Census may not be directly comparable.

From 1960 to 1990, Ludlow experienced net "out-migration," meaning that more people moved away from Ludlow than moved to Ludlow from other places. In the 1960s, this was offset by a net "natural increase" in the population, meaning the number of local births exceeded the number of deaths, resulting in a net increase in population. Natural increase declined in the 1970s; and a natural decrease in population occurred during the 1980s (local deaths outnumbered births) – a trend that intensified through the 1990s. The past decade, however, marked the Town's first net in-migration in forty years and the largest ten-year jump in population since the 1930s. The population growth between 1990 and 2006 is largely due to a net in-migration, a noticeable proportion is people over the age of 45. A result of this trend is a significant change in the composition of the local population. Since 2006, Ludlow experienced net out-migration.

Compared to county and state population trends, Ludlow has a higher percentage of seniors and a lower percentage of families with children. According to the U.S. Census, the proportion of seniors (65+) grew slightly from 18.7% in 2000 to 23% in 2010. A corresponding decrease in the number of those under 18 years old occurred, from 20.9% in 2000 to 16.8% in 2010.

It appears as though children born during the late 1980s and early 1990s, known as the Echo Generation, are moving through the local school system (see Chapter 7). This trend, coupled with the decrease in residents of prime child bearing years, will likely result in a declining number of school-aged children in coming years. This corresponds to decreasing school enrollment between 2001 and 2009, as discussed in Chapter 7. Appendix E includes a data profile for Ludlow.

Seasonal Population

Recent trends in Ludlow's year-round population are dwarfed by changes in Ludlow's seasonal population over the past two decades. This is almost entirely attributable to Okemo Ski Resort, which has increased the annual number of visitors to the mountain from approximately 95,000 in 1982/83 to more than 608,000 in 2008/09 – an increase well over 500% (see Chapter 6). Associated with this increase has been the development of nearly 800 on-mountain dwellings over the same period, in addition to the development of approximately 400 off-mountain seasonal dwellings (see Chapter 5).

Ludlow's peak seasonal, day-time population is estimated by the municipality to be 15,000 to 18,000 people (more than 9.1 times the year-round population), including year-round residents, workers, skier visits, and lodgings. The peak population occurs on a number of winter weekends and vacation weeks over the course of a year and presents many planning challenges to the community regarding how to manage impacts and meet the demand for facilities and services. In many instances, these challenges are best addressed through temporary mitigation measures. From a long range planning perspective, both the "effective population" and the "peak population" of the community are important considerations. The effective population is an estimate of the resident year-round population and the average transient population in Ludlow over an extended period.

In light of this estimated effective population, the demands for many services exceed those typical for a town of nearly 2,000. As such, Ludlow's effective, rather than year-round, population offers a better basis to plan for most needed services and facilities, with additional contingencies being necessary to handle peak periods.

How the Municipal Plan Relates to Development Trends

Significant population growth is not anticipated for the next 20 years. Therefore, many of the identified public infrastructure needs in this Town Plan are based upon maintaining the existing facilities, such as roadway maintenance, culvert replacements, rebuilding sidewalks, and strategic water and sewer system improvements. In light of recent trends, this Plan seeks to encourage economic development initiatives in ways that reinforce Village Center revitalization, maintain rural character, and preserve/enhance quality of life.

4 Landscape

4.1 Soils and Topography

Ludlow is a rural town with historic development concentrated in the Black River valley. The Village is surrounded by hills and mountains and a largely wooded landscape. Development activities over the recent decades have resulted in a patchwork of cleared areas, often along ridgelines for better views of the ski area. Ludlow/Okemo Mountain at 3,343 in elevation is the dominant land feature in Ludlow. Terrible Mountain, Hawks Mountain, The Alps, Sawyer Rock and Salt Ash Mountain in the surrounding area are also prominent features in the skyline. The upland soils are generally very shallow and less suited for development, while the soils in the valley bottom are deeper. Significant areas of steep slopes are present in Ludlow as shown on the Topography Map. Careful consideration must be given to development in areas higher than 2,500 feet in elevation and with slopes greater than 25% to avoid any negative impacts new construction may have on the environment, such as degradation of water quality, erosion of topsoil, and encroachment on wildlife habitat. Development must comply with policies for ridgelines and scenic resources as discussed in more detail in Section 4.7.

4.2 Farms and Forests

Forest Resources

Minimizing or preventing forest fragmentation is a key component in promoting the health, viability and ecological function of forests. Large blocks of forests and habitat connectors are beneficial for water quality, flood resilience, wildlife habitat, timber or maple syrup production and recreation. The Forest Blocks Map depicts large areas of forestlands, which are primarily along the entire western portion of Ludlow. Riparian areas along rivers and streams as well as smaller forest blocks function as habitat connectors.

Forested land in Ludlow comprises a majority of the total current land area and serves as a major asset. The Okemo State Forest and Tiny Pond Wildlife Management Area encompass a large portion of the mapped forest blocks, and cover about 15 percent of the total land area in Ludlow.

A majority of the forested lands in Ludlow are privately owned. Landowners are under increasing financial pressure to sell or convert them to land uses other than forestry. Development and subdivision activity throughout Vermont are resulting in forest fragmentation. See the [VNRC's forest parcelization website](#) for more information. Tools that can help to address forest fragmentation include land acquisition, conservation easements, Vermont's Use Value Appraisal (or Current Use) Program and the [Forest Legacy Program](#). Zoning and subdivision bylaws will be reviewed to evaluate how they can be modified to better minimize forest fragmentation.

Agricultural Resources

Protecting important agricultural soils, while also encouraging smart growth, is challenging. Many historic villages, including Ludlow, are located in river valleys and are surrounded by areas of prime agricultural soils and/or agricultural soils of statewide significance. (See the Agricultural Soils Map.) Agricultural soils that are rated by the Natural Resources Conservation Service as prime, statewide or locally important are regulated through Act 250 Criterion 9(b). Large blocks of prime agricultural soils are beneficial to allow for future farming. However, a balance is necessary in order to protect agricultural soils, while allowing the flexibility to facilitate new growth within or adjacent to historic villages in accordance with the State Planning Goal in 24 V.S.A. 4302(c)(1).

Though large working farms are no longer active in Ludlow, a few horticultural crops and, domestic livestock are still raised, primarily for family or specialty use. These small-scale agricultural activities contribute to the overall quality and identity of Ludlow, when effectively interspersed with other compatible land uses. Ludlow encourages sustainable farming activity, including local farms of all sizes (large, medium and small), to enhance the working landscape economy and increase access to healthy food products.

Agricultural resources provide meadows, pastures and fields that create visually appealing open land which contrasts with forested and appropriately developed lands.

4.3 Earth and Mineral Resources

New England's most common earth mineral resources include granite, marble, sand, gravel, and talc. Primarily talc, sand, and gravel are present in Ludlow. Granite and marble do not exist in sufficient quantities to be profitable for extraction. Traces of gold, washed downstream from neighboring towns, are also extracted from Ludlow's surface waters as a recreational activity.

Earth mineral resource extraction activities provide sand and gravel resources that are useful in local construction and for export. Ludlow's leading mineral extraction is talc. The responsible mining of talc, sand and gravel – with careful attention to environmental concerns, site restoration and mitigating negative impacts on neighbors (e.g. noise, trucking) – can continue to provide Ludlow with a stable economic resource.

4.4 Water Systems

Surface Waters

Much of Ludlow lies within the Black River Watershed (see the Water Features Map), which drains into the Connecticut River. The southern portion of town is within the Williams River Watershed. Major waterways in Ludlow include the Black River and its tributaries, Jewell Brook and the Branch Brook. The Black River forms a generally narrow valley, surrounded by hilly and mountainous terrain. The source of the Black River is at the outlet of Black Pond in Plymouth. In Ludlow, the Black River flows into and through two large lakes, Lake Rescue and

Lake Pauline, in the northern part of town. A local lake association was formed in August of 1954 to address lake related issues. The lakes are a popular destination, and many homes have been developed along the lake shores. In addition, many ponds and wetlands dot the landscape providing visual interest, recreational opportunities, and habitat for wildlife.

Buttermilk Falls on Branch Brook consists of a series of three falls with a large, shallow pool beneath each with sunny cobble and gravel shores. This area is very scenic and serves as a popular swimming hole.

Historically, Ludlow developed as a mill town using the river and brooks as sources of power for textile mills. The Black River runs through the center of town and is paralleled by major transportation corridors (i.e. VT Routes 100 and 103, Green Mountain Railroad). As a consequence of the proximity of the rivers to municipal infrastructure and buildings, it is important for the municipal plan to evaluate related considerations, such as stormwater controls and flood resilience.

Stormwater

Excessively wide roads and expansive parking lots, development on steep slopes, large impervious surface areas, curbs and catch basins, and straightened stream channels are all common in the landscape today. Existing development that exhibits those elements can lead to decreased stormwater infiltration, lower evaporation and transpiration rates, and increased surface runoff, which can increase the susceptibility to flooding and fluvial erosion.

Best management practices for stormwater management (e.g. [Low Impact Development](#), [Green Stormwater Infrastructure](#)) generally involve methods to minimize runoff and increase infiltration onsite, and to maintain or mimic natural ecological and hydrologic functions of each development site.

Significant changes have been made recently to state stormwater rules based on the Vermont Clean Water Act (Act 64, 2015). A [state stormwater permit](#) is required for construction that involves one or more acres of disturbed area. A new rule (2018 proposed draft) will impose standards for existing sites with three or more acres of impervious surface that lack a stormwater permit based on the 2002 Stormwater Management Manual.

Ludlow maintains a closed drainage system in the Village, which is discussed in the utilities and facilities section of this Plan. Municipal roadways that are in close proximity to surface waters are now subject to a [Municipal Roads General Permit](#) (MRGP). This will involve maintaining an inventory and implementing a stormwater improvement plan for these road segments. These road segments are expected to be fully compliant with the standards included in the [General Permit](#) by December 31, 2036. It will be costly for Ludlow to bring these roads into compliance. Funding assistance is available through a variety of programs, such as [Better Roads](#), [Municipal Roads Grants-in-Aid](#), [Municipal Highway and Stormwater Mitigation](#), and the [Transportation Alternative Program](#).

The Ludlow Development Review Board requires erosion control and stormwater management plans as part of the local development review process.

Flood Resilience

As identified in Ludlow's *Local Hazard Mitigation Plan*, the lower-lying areas in the Village are particularly susceptible to inundation flooding and the higher-elevation areas are prone to flash flooding. Ludlow has experienced significant flood and fluvial erosion damages in the past including, but not limited to, in 2011, 1976, 1973 and 1927. Tropical Storm Irene in 2011 damaged numerous private properties and resulted in about \$2.6 million in damages to municipal infrastructure. As such, one of Ludlow's primary objectives is to promote flood resilience in accordance with the State Planning Goals [24 V.S.A. §4302(c)(14)]. See Ludlow's *Local Hazard Mitigation Plan*, as most recently amended, for more detail as it relates to the flood resilience element for this plan.

The following areas are identified as those areas particularly at risk of flooding and fluvial erosion, and are designated for certain protections to reduce the risk of future flood damage to infrastructure and properties:

Flood Hazard Areas

The flood hazard areas depicted as "Special Flood Hazard Areas" on FEMA's Flood Insurance Rate Map are at higher risk of inundation flooding. See the Water Features Map that shows where these areas are located. There are about 82 existing structures in the Village and 112 structures in the Town within or partially within the Special Flood Hazard Areas. A permit is required for all development that occurs in this area per the zoning bylaws for both the Town and Village of Ludlow. The associated standards generally require raising living spaces to be one foot above the base flood elevation or dry-flood proofing non-residential buildings.

Local Flood Hazard Areas (LFHA) are also identified and regulated under both the Town and Village zoning bylaws. These zoning provisions are intended to promote flood resilience by regulating the potential flood and fluvial erosion hazards and minimizing impacts resulting from destabilized streambanks. Generally these provisions involve no new structures to be built within the established LFHA setback.

River Corridors

Rivers are dynamic and, as a result, development that is located too close to river/stream banks is at risk of potential bank erosion and channel relocation. The River Corridor (RC), which is shown on the Water Features Map, depicts the portions of Ludlow that are particularly at risk of this type of fluvial erosion damage. There are 155 existing structures in the Village and 118 in the Town located within or partially within the RC, as mapped by the Vermont Agency of Natural Resources. At this point, development that is subject to State rules and procedures – including state facilities, acceptable agricultural and forestry activities per 24 V.S.A. §4413, and projects subject to Act 250 or Section 248 review – will be required to meet standards that promote resilience from future fluvial erosion in these areas. The Town and Village want to encourage river corridor protection where it is possible for the river channel to still vary its course.

Lands Adjacent to Streams

FEMA special flood hazard areas are designated along only the larger rivers and streams in Ludlow. Flooding is possible along other watercourses. Therefore, Ludlow's Zoning Bylaws were amended recently to include local flood hazard areas that establish setback provisions along named tributaries in order to mitigate erosion and prevent new development from occurring too close to stream banks, which would put them at greater risk of flooding or fluvial erosion.

Properties subject to Act 250 review are generally required to follow State buffer requirements, which range between 50 and 100 feet from the top of bank.

As noted above, the water quality and flood resilience benefits of buffers along water courses are important. However, equally important is to allow for some exemptions to the buffer standards in order to allow for recreational uses (e.g. water access, multi-use paths), water crossings (e.g. roads, driveways and utilities), and management activities (e.g. removal of hazardous trees, eradicating exotic invasive species or contaminated soil remediation).

Wetlands

Wetlands serve a number of important functions, including flood retention. (See the discussion on wetlands and vernal pools on the next page about other important functions.) Maintaining this functionality of wetlands can contribute toward mitigating flooding impacts in Ludlow. Vermont Wetland Rules apply to all applicable important wetlands of the State. Ludlow's subdivision bylaws include a provision to prevent adverse impacts to wetlands.

Upland Forests

Maintaining an adequate forest cover in rural upland areas and steep slope areas helps to maximize infiltration of water into the soil, and minimize or slow down stormwater runoff in ways that mitigate flooding hazards to downstream locations. Efforts to minimize heavy cutting in forestry activities, limiting the extent and densities of developments, and properly managing stormwater in these uplands areas will help contribute toward community flood resilience. The Ludlow subdivision bylaws include stormwater and steep slope provisions that help to achieve this upland forest functionality. However, the zoning bylaws and the above subdivision provisions should be evaluated and possible modifications considered in order to further community flood resilience (e.g. stormwater standards, encouraging low impact development, green stormwater infrastructure).

Watershed Planning

Tactical basin plans (TBP) for Vermont's watersheds are developed by the Vermont Agency of Natural Resources. Each TBP contains objectives, prioritized strategies, benchmarks and tasks in order to facilitate the implementation of the plans. Ludlow and its waters are addressed in the Basin 10 Plan for the Black and Ottauquechee river watersheds. The TBP is the guidance document for the ANR's work on water resources. It is used to prioritize projects and target resources for restoration and protection. The goals of the Ludlow Municipal Plan and improvement and protection projects desired by the town should be listed in the town plan in

order to prioritize them in the TBP. The Vermont Agency of Natural Resources completed the [Tactical Basin Plan for the Black and Ottauquechee Rivers](#) in June 2018.

Ludlow will receive additional consideration on grant funding applications if it adopts higher levels of protection for flood hazard areas. These protections also qualify the Town for reduced cost share after a declared disaster for damage to public infrastructure including roads and culverts through the Emergency Relief and Assistance Fund (ERAF). For disasters after October 23, 2014, the State of Vermont will contribute an additional 7.5% toward the costs. Currently for Ludlow, following disasters the State contributes 12.5% of the cost share. If Ludlow adopts river corridor protections this rate will increase to 17.5%.

The SWCRPC completed a Phase 1 Fluvial Geomorphic Assessment of the Black River and associated tributaries, examining erosion hazards, floodplain access and bridge and culvert conditions. The SWCRPC's *Phase 2 Stream Geomorphic Assessment for the Black River Watershed* was completed in May 2009. Findings in these studies include:

- a. Development in recent centuries (including buildings, dams, roads and the Green Mountain Railroad) has encroached upon the floodplain within and near the Village of Ludlow, resulting in large areas of impervious surfaces, dated drainage systems and the loss of contact with portions of the floodplain.
- b. Historically, the Black River, Branch Brook and Jewell Brook channels were straightened and streambanks hardened with riprap or concrete, stone or metal walls.
- c. Development and human modifications to the river have resulted in a loss of functional floodplain areas, and indicate possible future adjustment of the river channel. (See the Water Features Map that shows erosion hazard areas along the Black River.)
- d. The Black River and its tributaries in Ludlow support wild and stocked populations of trout, although aquatic habitat is limited by environmental conditions such as warm water temperatures.
- e. Erosion and road runoff are significant problems in Ludlow's rivers, brooks and lakes. The lakes are experiencing related sedimentation problems.
- f. Development in the headwater areas at high elevations presents a need for sound stormwater and erosion control techniques.

Lake Rescue had an infestation of Eurasian water milfoil a number of years ago, but eradication efforts were successful and it has been plant free for several years.

Wetlands and Vernal Pools

A number of wetlands are also located throughout Ludlow, many of which are included in the National Wetlands Inventory and Vermont Significant Wetlands Inventory. Wetlands are biologically productive ecosystems and serve a variety of functions: retaining stormwater runoff, reducing flood peaks, protecting groundwater quality, filtering eroded sediment, and providing habitat for a wide diversity of plants and animals. They also provide open space and contribute to Ludlow's scenic landscape. According to the Vermont Wetlands Rules, Class 1 and 2

wetlands (those identified in the National Wetlands Inventory) require conditional use review by ANR prior to the issuance of a local zoning permit. (See the Water Features Map.) Class 3 wetlands are not included in the inventories and are generally not protected by the Wetland Rules, but other regulations may apply.

Vernal pools are temporary bodies of water which usually occur in woodland depressions and provide important breeding areas for a variety of amphibian and insect populations. Most vernal pools in Vermont are filled by spring rains and snow melt and are dry during the summer. They provide safe breeding grounds for insects and amphibians because they do not support fish populations.

Groundwater

Groundwater is the primary source of drinking water in Ludlow. It moves underground through aquifers, which are water-bearing strata of permeable rock, sand, or gravel. Maintaining good quality and adequate quantities of groundwater are important considerations for preserving the public health and safety. Potential groundwater pollutants include seepage from improperly designed or malfunctioning septic tanks and leaching fields for wastewater, leakage from underground gas and oil tanks, and improperly disposed of chemical materials. Once contamination occurs, control and abatement are extremely difficult, if not impossible. The key is to prevent pollution from entering rock fractures in the first place.

A number of public and private wells tap into Ludlow's supply of ground water. The municipal water supply comes from an aquifer located along the southern and eastern sides of Ludlow (Okemo) Mountain and Terrible Mountain, including portions of the state forest. This aquifer is protected by a large designated aquifer protection district (APD) in the southwest part of Town. This APD and ten wellhead protection areas define the current areas of concern for protection of groundwater resources.

Effective June 9, 2008, Section 1 of Vermont Act 199 sets forth the General Assembly's finding that groundwater resources of the state are held in trust for the public.

4.5 Wildlife Habitat

Wildlife is encouraged to thrive in Ludlow's rich natural environment. The resources previously defined – clean water, healthy forests, and fields – form the basis for an ecosystem that naturally supports the presence of wildlife. Bears travel in the forested and mountainous corridor areas along the western and southern Town boundaries. Deer winter in areas sheltered by hillsides and dense tree cover. Streams, lakes, ponds and wetlands provide habitat for fish and supply other wildlife with fresh food and drinking water. A variety of birds, from waterfowl to songbird, finds an appropriate habitat in Ludlow.

Four rare or uncommon plants have been documented by the State Department of Fish and Wildlife in the Ludlow area (one is classified as very rare, two as rare, and one as uncommon). The Wildlife Habitat Map of Ludlow shows the general locations of these rare plants. Efforts to protect these rare species prevent publication of their specific location.

As discussed in Section 4.2, large forest blocks serve as important habitat, and riparian areas and smaller forest blocks function as habitat connectors (See Forest Blocks Map). Maintaining the wildlife habitat and wildlife travel functionality of these features is important to sustain biodiversity. Encroachment by development threatens the functionality, but carefully planning future development can mitigate these impacts.

4.6 Air Quality

Residents currently enjoy relatively good ambient air quality, according to national standards, that exists today in Ludlow. As a result, the municipality's good air quality constitutes an environmental resource that has aesthetic as well as human health benefits. Elements that could negatively affect air quality include: smell, light, particulate matter (from dust, smoke or fumes), radiation, chemical vapors, motor vehicle exhaust and power plant emissions. Outdoor lighting can also negatively impact safety and the dark night sky. The performance standards in Section 550 of the zoning bylaws regulates a number of the factors that can negatively impact air quality.

4.7 Scenic Features

State planning goals encourage maintaining historic settlement patterns in villages surrounded by a rural countryside, as well as protecting important scenic and historic resources [24 V.S.A. §4302(c)(1) and (5)]. Scenic and historic resources are among Ludlow's most valued assets. Residents value the small town feel of the Village, surrounded by open fields, the lakes and rivers, hills and large tracts of forested lands. This Plan seeks to encourage future growth that also protects these scenic and historic resources articulated in this chapter.

Ridgelines and Scenic Resources

Certain outstanding scenic resources are an essential component of the rural character that defines the outlying areas and serves as a scenic backdrop for the Village of Ludlow and major roadways. Maintaining these scenic qualities is a very important consideration, especially as the features listed below greatly contribute to the tourism-based sector of the local economy.

The dark night sky is also considered as a scenic resource for the purpose of this Plan. Light pollution from development can negatively impact the rural character and quality of life enjoyed by residents.

The following are identified as Ludlow's important scenic resources:

- a. The Lakes (Rescue, Pauline, Round Pond)
- b. Tiny Pond
- c. Black River
- d. Buttermilk Falls
- e. State Forest
- f. Cemetery
- g. Forested areas within the Ludlow public water source protection area
- h. Dark night sky
- i. Scenic vistas along VT Route 100
- j. Prominent hills and ridgelines are valued by Ludlow residents, including:
 - Bear Hill

- The Pinnacle
- Whetstone Hill
- South Hill
- Ludlow (Okemo) Mountain (the portion of which that is within Ludlow)
- North Hill
- East Hill
- Terrible Mountain (the portion of which that is within Ludlow)

These ridgelines provide a scenic view from the Village and major roadways in Ludlow (see the Topography Map). In addition, these areas are fragile due to high elevation and steep slopes, and are also valued for their scenic, wildlife habitat and forestry attributes. All applicable development is subject to the Ridgeline Protection Overlay District in the Town of Ludlow Zoning and Flood Hazard Regulations.

4.8 Landscape Policies



- 4.8.1.1 Development must be sited in order to avoid unstable soils that offer poor support for foundations or footings and are subject to slippage, or are poorly suited for road construction. Extensive site investigations and erosion control plans may be required to determine the development suitability of such soils.
- 4.8.1.2 Development is strongly discouraged in areas higher than 2,500 feet in elevation and with slopes greater than 25% must avoid any negative impacts new construction may have on the environment, such as erosion of topsoil and degradation of water quality.



- 4.8.2.1 Encourage measures that balance supporting land-based economies, protecting large blocks of forested lands, with supporting development in or near village centers.
- 4.8.2.2 Proposed roads or utilities must be sited to cause minimal negative impact to forest contiguity and aesthetics.
- 4.8.2.3 Not allow development that results in the fragmentation of large contiguous blocks of forested lands and habitat corridors in order to support productive, sustainable forestry, maintain wildlife habitat, and promote the health, viability and ecological function of forests.



- 4.8.3.1 Conserve agricultural lands, as shown on the Agricultural Soils Map, for their current and potential value.
- 4.8.3.2 Development must be sited carefully in order to avoid fragmentation of prime agricultural soils.



- 4.8.4.1 Earth mineral extraction activity must not destroy or significantly imperil necessary wildlife or water resources, nor result in undue adverse impacts related to noise, dust, traffic, or visual degradation of the site and surrounding neighborhood.
- 4.8.4.2 Ensure that abandoned and un-reclaimed extraction sites do not present an unsightly appearance, pose health and safety hazards, and reduce the property value of abutting land. All applications for earth extraction activities must include an adequate site reclamation plan.



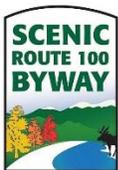
- 4.8.5.1 Protect shorelines and stream banks from surface runoff that could lead to excessive erosion, sedimentation, and/or other pollution of surface waters. No clear cutting of trees shall be allowed within 50 feet of the high-water mark of Lakes Pauline and Rescue and Round Pond to maintain the water quality and scenic value of these lakes.
- 4.8.5.2 Protect the quality and capacity of groundwater. Land uses within the Aquifer Protection District and wellhead protection areas must not threaten the quality of groundwater supplies.
- 4.8.5.3 Destruction of Class 1 and 2 wetlands and construction in wetlands must be avoided.
- 4.8.5.4 Water quality must be maintained and improved according to policies and actions identified in the VT ANR's Tactical Basin Plan for the Black River watershed (Basin 10).
- 4.8.5.5 New development in identified flood hazard areas and river corridors should be avoided. If new development is to be built in such areas, it must not exacerbate flooding and fluvial erosion.
- 4.8.5.6 The protection and restoration of floodplains and upland forested areas that attenuate and moderate flooding and fluvial erosion must be encouraged.
- 4.8.5.7 Where buffers are required for Act 250 projects, provide reasonable flexibility with these buffer standards in order to allow for recreational uses (e.g. water access, multi-use paths), water crossings (e.g. roads, driveways and utilities), and management activities (e.g. removal of hazardous trees, eradicating exotic invasive species or contaminated soil remediation).



- 4.8.6.1 Landowners must avoid subdivision or fragmentation of land that would result in significant loss or degradation of fish and wildlife habitat areas.
- 4.8.6.2 Ensure that methods of waste disposal, construction, road paving or maintenance; or disturbance of habitat, and other human activities do not lead to pollution or destruction of wildlife habitats.
- 4.8.6.3 Establish preservation measures for areas identified as critical habitat for the survival of wildlife species.
- 4.8.6.4 Support private organizations, landowners and others who are involved in efforts to ensure the continuation or enhancement of Ludlow’s wildlife population.
- 4.8.6.5 Encourage the economic community that involves or relies on fish and wildlife populations to contribute to sustaining Ludlow’s wildlife resources.



- 4.8.7.1 Development must not result in undue adverse impacts on air quality.
- 4.8.7.2 Development must meet all applicable performance standards in Section 550 of both the Village Zoning and Flood Hazard Regulations and the Town Zoning and Flood Hazard Regulations.



- 4.8.8.1 Preserve the identified scenic views and ridgelines that most contribute to Ludlow’s rural character. Any development in these areas must minimize negative visual and environmental impacts, by limiting tree cutting, using building materials that minimize reflective glare, landscaping to minimize visibility of structures or through other means of visually integrating development sites into the surrounding landscape.
- 4.8.8.2 Proposed new lighting must avoid glare and other unnecessary light pollution by utilizing full cut-off exterior lighting fixtures in order to maintain Ludlow’s clear dark sky.
- 4.8.8.3 Telecommunication towers are subject to the requirements of the Ludlow’s Telecommunications Facilities Ordinance.
- 4.8.8.4 Residential-scale wind power generating facilities are encouraged in Ludlow (see the Energy Section of this plan). All such facilities must minimize negative visual and environmental impacts as discussed in policy statement #4.8.8.1.

- 4.8.8.5 Commercial wind energy systems are prohibited on scenic ridgelines and are subject to the siting policies listed in the Energy Section for any project subject to review by the Vermont Public Utility Commission.

5 Community

5.1 Homes

Ludlow strives to provide a safe and affordable home for all residents. The purpose of this chapter is to document existing conditions and how the municipality can try to address housing needs.

During the Planning Commission’s two public forums held in 2018, the following key ideas about housing in Ludlow were expressed:

1. Affordability is the primary issue. It can be a challenge for younger families to afford to live here. Perceived contributing factors that limit home affordability include the second home market and property taxes.
2. There is a lack of rentals for seasonal employees. An increasing number of units are now used for short-term rentals, so fewer units are available for longer-term rentals. Many affordable housing units require a year-long lease, while terms of 4-6 months would better fit seasonal workers’ needs.
3. There are a number of buildings in poor condition, many of which are within the village. There appears to be strong support to fix up these old buildings in the village for housing, but financial incentives may be needed to make it happen. Tax credits available through Village Center designation currently provide a financial incentive. Additional incentives should be considered.

Household Characteristics

Appendix E contains a data profile for Ludlow. The following is intended to summarize key aspects of the profile for the community as it relates to housing.

Between 2000 and 2010, Ludlow’s population decreased by 20%. However, the number of total housing units increased 9.5% during this time period – this growth was largely comprised of seasonal housing units constructed in the rural areas of the Town. According to the U.S. Census, there were 930 households in Ludlow in 2010, 44% of which resided in the Village (up from 41% in 2000). During the 2000s, vacancy rates increased, representing a 12% decrease in total households. The U.S. Census Bureau estimate for 2016 is 929 households in Ludlow, 438 of which are within the village.

Following national and statewide trends, household size has been declining in recent decades – the result of an aging population, families having fewer children, the break-up of extended family households, and a relative increase in single-parent and non-family households. The Town and Village of Ludlow’s combined average household size decreased from 2.41 in 1990 to 2.06 in 2010, while the Village’s average household size decreased from 2.21 in 1990 to 1.88 in 2010.

Housing Characteristics

There were 3,285 total housing units in Ludlow in 2010, of which about 19% were owner-occupied and 10% were renter-occupied. The vast majority of units in Ludlow are seasonal.

The number of vacancies increased. Vacancy rates for owner-occupied units was 1.2% of the total housing units in 2010 and rental units was 2.4%, a significant increase from the prior Census. Other noteworthy characteristics of Ludlow's housing stock include the following:

1. The Village has a much higher percentage of rental units when compared to the Town. Nearly 42% of Village households are owner-occupied, while 84% are owner-occupied in the Town.
2. Vacancy rates in Ludlow are higher than the county and state as a whole, which is consistent with other ski towns.
3. The housing stock is significantly older in the Village when compared to the much newer housing stock in the rural areas of the Town.
4. More than half of the houses in Ludlow Village were built prior to 1939, which accounts for much of the Village's historic character. In addition, as tourism has grown in Ludlow, there have been numerous conversions of residential properties to commercial usage (inns, lodges, bed & breakfasts, motels, etc.).
5. Of the 284 new housing units constructed during the last decade, 21 are in the Village. Many of the 263 new units constructed outside of the Village are used for seasonal housing.
6. The Jackson Gore construction of 326 additional dwellings is associated with the expansion of the ski area and associated recreational amenities. Many of these are quarter-share units, meaning that there is the potential for 4 owners in each unit, owning a total of 13 weeks per year for each owner.

While second home development is often welcomed because of the positive financial implications for the municipality, it can inflate the local housing costs.

In addition to seasonal housing units, Ludlow has a significant number of available rental beds, including hotels, motels, bed and breakfasts, inns and rental properties. Current facilities are estimated to accommodate 8,074 people in Ludlow when all beds are occupied.

Okemo Mountain Resort has been developing employee housing for seasonal workers. There are currently two locations used for this purpose: one at 2 Pleasant Street, and one at 80 Pond Street. There may be a need for additional seasonal worker housing in the future.

Subsidized Housing

There are 82 affordable rental housing units in Ludlow at this time. [Black River Overlook](#) on Rublee Lane has a total of 22 units. Stewart Property Management manages this facility for the [Windham and Windsor Housing Trust](#). There are two facilities at Gill Terrace for elderly housing: 7 Gill Terrace has 24 units and the newer building (9 Gill Terrace) has 36 units. They are all PAC 202 Housing, which is a HUD program for elderly supportive housing.

Mobile home parks are viewed by the state as a means of providing safe, sanitary, and affordable housing for low and moderate-income households. Ludlow has three mobile home parks occupied by a total of 47 mobile homes, which comprise 8% of Windsor County's 37 parks and 5.4% of its 874 mobile homes. Rents vary in part due to the level of utilities and services provided.

Housing Affordability

Ludlow's median household income in 2016 was estimated to be \$45,799 (U.S. Census Bureau). The median price of primary residences sold in 2016 was \$192,450 (VT Department of Taxes). Based on the Vermont Housing Finance Agency's affordability calculator, a household would need an annual income of \$58,502 to afford a home at this median price, which is significantly more than the overall median household income.

According to federal and state definitions, housing is considered "affordable" when households that do not exceed 80% of the county median income and spend no more than 30% of their gross household income on housing costs. Windsor County's estimated median household income is \$54,763 (2016 estimates, U.S. Census Bureau). An affordable home price for a household at 80% of that income level would be \$143,500. The current median home price is significantly higher than that.

As part of the American Community Survey, the U.S. Census Bureau estimates the ability to afford housing in Ludlow. Based on that data, 41% of owner-occupied households and 39% of renter-occupied households pay 30% or more of their income on housing. It also indicates that 19% of owner-occupied households and 24% of renter-occupied households spend 50% or more on housing costs (2009-2013 American Community Survey). This validates what the Planning Commission heard at the public forums: there is a housing affordability problem in Ludlow.

Equal Treatment of Housing

Under the equal treatment of housing provision [24 V.S.A. §4412 (1)], no local bylaw may have the effect of excluding affordable housing for low- and moderate-income populations. This statute enables accessory dwelling units for single-unit residential dwellings. An accessory dwelling unit is an efficiency or one-bedroom apartment that is clearly secondary to the owner-occupied residence, but it does not need to be physically attached to it.

Other forms of housing may also provide lower cost options, such as tiny homes, duplexes, bungalow courts, townhouses and live/work units. The zoning should be evaluated to determine if any impediments exist to providing these other forms of housing exist.

There appears to be local interest in renovating large, older buildings in the village to provide quality rental units. The community should coordinate with the Windham and Windsor Housing Trust on future housing projects.

The Windham and Windsor Housing Trust [provides services](#) that are underutilized in Ludlow at this time, including home ownership counseling and educational services, and a shared equity program. The shared equity program helps income-eligible people to buy a home through a subsidy, and the subsidy continues with the subsequent owner.

5.2 Economy

In the late 1800s, Ludlow became a center for manufacturing, including woolen mills. The railroad provided a link to the rest of Vermont and the northeastern U.S., allowing Ludlow's manufacturing industry and textile plants to grow and become successful. GE was a major local manufacturing operation until it closed the Ludlow plant after the floods in the 1970s. Some Ludlow residents continue to work at GE's facility in Rutland. In 1956, ski facilities were developed and later improved on Ludlow (Okemo) Mountain, later to become Okemo Mountain Resort. Ludlow¹ has undergone significant economic restructuring over the past three decades, making a transition from a dominantly manufacturing mill-town to a service-oriented tourist destination.

Present Economic Conditions

In 2016, Ludlow's civilian labor force was 1,073, and the unemployment rate was 4.3%. While the local economy relies heavily on the tourism industry, the labor force is employed in a cross section of other economic sectors (see Appendix E). In 2015, The largest employment sectors include:

1. Accommodation and Food Services (45%);
2. Manufacturing (13%);
3. Retail Trade (10%);
4. Public Administration (7%);
5. Educational Services (6%);
6. Health Care and Social Assistance (5%); and,
7. Construction (5%).

Major employers in Ludlow include: Okemo Mountain Resort (4-season resort including skiing, golf, aquatic/fitness center, etc.), Imerys Talc Vermont, Inc. (formerly Luzenac talc mine), JELD-WEN (door manufacturer), Gill Odd Fellows Home (nursing home), Visiting Nurse Alliance of Vermont, and Shaw's (supermarket). There are numerous small businesses operating in Ludlow, including a great variety of restaurants and other tourist services.

Retail and construction trades are connected to the tourism industry. As a result, bad snow conditions can have ripple effects in these related economic sectors. Changing weather patterns, which recently have included warmer temperatures and more inconsistent snow conditions, are a threat to the tourism-related economy.

¹ Much of the employment and economic data included in this chapter were not available for Ludlow Village; consequently, all figures presented in this chapter represent both Town and Village combined unless otherwise noted.

Seasonal employment is common in Ludlow, where many jobs in the ski, retail and construction industries can fluctuate at different times of the year. Unemployment rates are often highest in April and May.

The vast majority of people that are employed at businesses in Ludlow live in another town, many of whom travel fairly long distances for work (e.g. from Rutland, Claremont and Windsor). The ski industry often finds employees from outside the state or country. Finding adequate staffing is a common problem for employers, especially for seasonal jobs.

About 19% of Ludlow residents work in jobs located in town. Most residents travel to jobs in other towns. Common commute destinations are Rutland, Chester, Springfield, Cavendish, Hartford and Woodstock.

Despite the relatively high rate of job growth in the community in the last 20 years, average local wages⁴ lag behind wages in the county and state. In 2016, the average annual wage for covered workers employed in Ludlow was \$31,333, compared to \$45,054 for Vermont, while the "livable wage"⁵ for Vermont was \$32,785. Thus, the average wage in Ludlow is 95% of the state livable wage for a rural area.

One of the most significant challenges to local economic development efforts is a lack of available quality housing that workers can afford, considering the average wages of residents. See the Housing Chapter for more discussion of housing costs and availability.

Future Economy

This section describes what we want for our future economy. Section 6.2 also describes our future economy as it relates to the location, type and scale of future land use patterns.

Village Center

There is strong local support for revitalizing Ludlow's village center. This entails enhancing the streetscape, making it a pleasant and safe place to walk, investing in existing buildings, filling empty storefronts, slowing traffic down, and making it a place where both residents and tourists want to go. Efforts to clarify the locations of public parking and signs to find destinations (i.e. "wayfinding") were also identified as priorities.

Ludlow's village center was originally designated by the State Downtown Board in 2011, and an expansion was approved in 2016. Ludlow wishes to foster conditions that support vibrant local stores and community services located within the village center. (See the Future Land Use Map that depicts the designated Village Center boundary.) Village center designation is an important tool to help implement village revitalization efforts called for in this Municipal Plan. Benefits of designation include:

⁴ Because of the high number of part-time and seasonal jobs in Ludlow, average annual wages should not be presumed to equate to actual annual income.

⁵ A livable wage is the hourly wage or annual income sufficient to meet an individual or family's basic needs plus all applicable federal and state taxes. The livable wage referenced above represents the "rural" average annual wage for a single person with no children. Source: Basic Needs Budgets and the Livable Wage (2017)

- Tax credits for investments to income producing properties within the designated village center;
- Priority consideration for a number of grant programs;
- Creation of a special assessment district under 24 V.S.A. Chapter 87; and,
- Other benefits described in 24 V.S.A. §2793a(c).

There are additional [benefits](#) to Downtown designation, such as eligibility for the Downtown Transportation Fund, traffic calming and signage options, and Act 250 permitting benefits. Local downtown programs require additional efforts, such as developing and funding a local downtown organization. Ludlow should consider applying for Downtown designation.

The designated village center is the desired location for retail and other commercial uses typical of traditional Vermont villages, as well as the most intensive residential development in Ludlow.

Neighborhoods

Residential neighborhoods that surround the village center are desired to remain much as they are today, but with a focus to invest in certain dilapidated buildings, enable in-fill development, and provide a range of quality housing options for residents of all income levels. An objective of this area is to maintain or enhance the streetscapes to provide pleasant and safe conditions for walking and bicycling. Home occupations and home-based businesses are encouraged here, as they are a significant component of the local economy.

Outdoor Recreation

Ludlow is a destination for outdoor recreation (e.g. skiing, golf, lakes) with a number of other assets, such as an abundance of natural resources, architecture, history, arts and cuisine. Exploring ways to maximize the tourist's experience when visiting here will help to enhance Ludlow and Okemo Mountain Resort as a destination.

Many local businesses are affected by poor snow conditions and the "shoulder seasons". There is a strong interest to diversify the economy in order to promote strong year-round economic activity and to avoid disaster if climate change or other factors drastically impact the ski industry in the future. Specifically, residents and business owners at the 2018 public meetings expressed the importance of bringing in a few new businesses, preferably smaller-scale high-tech firms.

Rural Working Landscape

Ludlow promotes a working landscape of active farms and sustainable forestry activities in rural areas. We have a particular interest in encouraging local production of farm-fresh foods and value-added farm products, improving access to fresh and healthy food, and using public spaces for community gardens and farmers' markets.

Other ideas identified in the 2018 outreach that will contribute toward a more vibrant economy include providing good homes (e.g. good quality, diversity of choices/types, prices that residents can afford), a variety of recreational opportunities, great telecommunication services, access to a quality education, excellent municipal service and facilities, and a vibrant village.

5.3 Transportation

Ludlow is served by a transportation system of roads, a railroad, and public transportation services. As a rural area, driving is the predominant form of travel. As a ski town, managing seasonal traffic is an ongoing effort.

Walking and bicycling are popular. A sidewalk network exists in and around the Village. Bicycling is generally accommodated along existing roadways. Outdoor recreation and village revitalization are important aspects of Ludlow's vision. As such, enhancing walking and bicycling accommodations is important for the community.

Roads & Highways

There are approximately 105 miles of roads in Ludlow under different jurisdictions. The Village of Ludlow is responsible for maintenance of 10 miles, while the Town has 61 miles of highways. Approximately 20% (21.4 miles) of Ludlow's road network are private roads. Appendix E includes a variety of relevant information for this section, including road miles, traffic data, and travel for work patterns. The Transportation Map shows the local transportation network.

State Highways

There are approximately 13 miles of state-maintained highways in Ludlow, including VT Routes 103 and 100. VT Route 100 runs the length of the state and serves most tourist destinations along the main range of the Green Mountains. It connects Ludlow to Plymouth and Killington to the north, and Weston and Londonderry to the south. It converges with the east-west running VT Route 103 in the center of Ludlow for 1.8 miles. VT Route 103 serves as a major connection between Interstate 91 in Rockingham and US Route 7 in Rutland.

The westerly section of the Okemo Mountain Road provides access to the Okemo State Forest and is maintained as a State Forest Highway.

Municipal Roads

Ludlow maintains approximately 70 miles of local roads, 34% of which are paved. Municipally maintained roads include "town highways" (as defined 19 V.S.A. § 302) under jurisdiction of both the Village of Ludlow (10 miles) and the Town of Ludlow (61 miles). These include heavily used collector roads, quiet village streets, rural gravel roads, and Class 4 roads that are not maintained for year-round traffic. The road network also includes drainage ditches, 35 bridges and 511 culverts. Scenic Roads are discussed in Section 4.7.

Private Roads

There are about 21 miles of private roads in Ludlow. Development roads are required to meet town highway standards in order to provide adequate safety and emergency vehicle access. Most development roads are maintained privately by a homeowner's association. The municipality has a policy not to take over any private road unless it clearly serves the public interest (V.S.A., Title 19, Chapter 7).

Travel Patterns

As is the case throughout much of Vermont, the private automobile is the dominant mode of transportation in Ludlow. See Appendix E for commuting data, which suggests that the people

that work in Ludlow businesses travel significant distances for employment. A description of commuting patterns is included in the Economic Development section.

Despite options for public transportation, most workers travel by private automobile.

Traffic Data

While traffic volumes fluctuate from year to year, the traffic counts performed by the Southern Windsor County Regional Planning Commission on VT Routes 100 and 103 in Ludlow show an increasing trend since 1999. See Appendix E for traffic data. The busiest roads in Ludlow include VT Route 103, VT Route 100, High Street, Depot Street and Okemo Mountain Road. All of those roads experience higher traffic volumes during the winter months.

With Vermont's and Ludlow's tourist dependent economy, high levels of seasonal peak hour traffic (Summer, foliage and ski seasons) are typical and can be viewed as a sign of economic success. Many residents are affected by traffic congestion during the winter peak periods. Seasonal traffic control efforts by the Ludlow Police Department and the Windsor County Sheriff's Department are employed to mitigate to the greatest extent possible the delays during these peak hours. Okemo mitigates winter traffic through a variety of programs that lessen congestion during peak periods. The increase in seasonal traffic has the residual effect on local roads (e.g. High Street, Dug Road) as drivers seek alternative routes around the Village during peak hours of traffic.

VT Route 103 experiences high levels of truck traffic (14% of traffic is comprised of trucks), especially since it is on the National Highway System and serves as one of four major east-west connections in Vermont. VT Route 100 is also a major trucking corridor, with 6.1% truck traffic.

Road Maintenance

It is important to determine whether the design and condition of roads and bridges are adequate or sufficient to accommodate the function they are serving. The municipality adopted town highway and bridge standards for all new or reconstructed roads, bridges and culverts. Municipal access standards apply for any developments with roads or driveways accessing town or village highways. Development roads and driveways are also subject to standards in municipal zoning and subdivision bylaws. Recent Vermont stormwater rules will require some investment in certain roads, ditches and drainage structures over the next two decades.

The Ludlow highway department is responsible for maintaining both town and village roads. The total cost of road maintenance to the town is the third most costly annual expense to the community behind education and public safety.

The existing roadway network is generally considered to be adequate for the community, with the exception of routine maintenance and strategic improvements. At this point, the roadway network priority needs include the following:

- Implement the priority improvements identified in Ludlow's most recent roadway inventory and plan, as funds allow (i.e. road surfaces, culverts, bridges, and erosion/water quality threats).

- Keep up with routine maintenance (e.g. paving, grading, ditching). Prioritize paving and street sweeping maintenance on important bicycling routes.
- Make strategic investments to help roads and structures better withstand future flooding events.
- Rehabilitate or replace Bridge 57 on Mill Street; VTrans Project # BO 1443(52).
- Rehabilitate or replace the Vail Bridge (#26) on Main Street; VTrans Project #NH DECK().
- Stabilize Okemo Mountain Access Road.

Access Management

The frequency, location and design of highway accesses – or curb cuts – have a direct bearing on the safety and efficiency of roads. The design of curb cuts also is important with regard to stormwater management and road maintenance. VT Route 103 south of the Village and VT Route 100 just north of VT Route 103 both exhibit emerging strip development. These areas would benefit from sound access management techniques, which are explained through the [VTrans website](#).

Ludlow development regulations (e.g., zoning, subdivision regulations) and road ordinances establish standards consistent with these sound access management techniques, but in many cases they apply only to subdivisions. Future attention to access management, and the implementation of the strategies listed above, will enable local boards to balance the needs of motorists, pedestrians and bicyclists and improve highway safety and efficiency.

Parking

Most parking in Ludlow is privately-owned and located off-street and on-site. Public parking includes on-street parking in the Village, a park-and-ride lot, and leased spaces. There are approximately 92 on-street parking spaces⁶ in the Village. A municipal park-and-ride lot and bus shelter is available at the Ludlow Fire Station. The Village has leased parking spaces in the former IGA lot for public use. Off-street parking is required under the Zoning Regulations for new development. An evaluation of parking in the village would help to inform village revitalization efforts, determine future parking needs and identify how to address them.

Pedestrian & Bicycle Facilities

Ludlow has approximately 5 miles of sidewalks, primarily within the Village. A number of improvements to this network have been made in recent years. Additional streetscape enhancements within the Village are desired, which include sidewalk and crosswalk improvements, pedestrian lighting, landscaping and the provision of street furniture. These improvements not only encourage safer and more enjoyable walking conditions, but they also support economic development efforts.

Bicycling is presently accommodated along existing roadways. The road surface and shoulder conditions vary significantly, which affect the safety and experience of cyclists. There has been a very strong interest in developing a multi-use path over the years. A popular path concept

⁶ During peak winter traffic volume times, ten of the total on-street parking spaces are eliminated to provide for the additional lane at the intersection of Main and Depot streets

would connect the High School site to Fletcher Fields, although floodway related permitting issues were an obstacle. Another concept includes a path connecting the park-and-ride lot to Jackson Gore, which is estimated to cost \$2.7 million. The high cost is the primary obstacle for that project.

An extensive network of trails exists in the region accommodating hiking, horseback riding, snowmobiling, cross country skiing, and other multi-purpose uses. The network is comprised of informal, loosely defined trails as well as formal, well-defined trails on public lands. A number of organizations maintain these trails including the Vermont Department of Forest, Parks, and Recreation; the Army Corps of Engineers; the Vermont Association of Snow Travelers; Catamount Trail Association; and the local community. Use of Ludlow's Class 4 roads, seasonal roads closed to vehicular traffic in winter, is a significant aspect of this network.

Public Transportation

Ludlow Municipal Transit System

This municipal public transportation system created in 2002, serves the community throughout the year. The municipal transit system will be eliminated when the school closes in 2020.

Okemo Village Shuttle

The Okemo Village Shuttle, a free service that started in 1989, offers transportation during the day for skiers and snowboarders and local residents to and from Okemo Mountain Resort on weekends and holiday weeks. The Village Shuttle is comprised of four separate routes and makes scheduled stops throughout the villages of Ludlow and Proctorsville.

"The Current" Bus Service

"The Current" (a division of Southeast Vermont Transit) provides public transportation services in southern Windsor and Windham Counties. The Current operates a seasonal commuter service connecting Bellows Falls and Springfield to Ludlow and the Okemo Mountain Resort. The Current also provides on-demand transportation services for elders and persons with disabilities. Bus routes by The Current and the Marble Valley Regional Transit District connect Bellows Falls, Springfield, Ludlow and Rutland. Marble Valley provides service beginning in Rutland, The Current from Bellows Falls and Springfield, and both providers meeting in Ludlow which serves as a hub for this coordinated intra-regional service.

Rail Service

Passenger rail service is provided by Amtrak, including both the *Vermont* and *Ethan Allen Express*. The *Vermont*, with stops in the towns of Bellows Falls, Windsor and Claremont, N.H., provides service to Burlington, New York City and Washington D.C. The *Ethan Allen Express* connects Rutland to Albany and New York City. Green Mountain Railroad provides freight service in Ludlow and links with the New England Central Railroad in Bellows Falls and Vermont Railway in Rutland. The primary local user of the freight service is Imerys Talc Vermont, Inc. in Ludlow. The Green Mountain Flyer is an excursion train operating only during the foliage season with passenger service between Bellows Falls, Chester and Ludlow.

Air Transport

The closest commercial airline service is available at the Southern Vermont Regional Airport in Rutland and the Lebanon Airport in N.H. The Hartness State Airport in Springfield and the Claremont (N.H.) Municipal Airport provide general aviation services. Important commercial airports for residents and businesses are in Burlington; Albany, New York; Boston, Massachusetts (Logan); Hartford, Connecticut (Bradley); and Manchester, New Hampshire.

5.4 Utilities and Facilities

Ludlow maintains public water, sewer, electricity, and other facilities and services as described in this chapter. See Appendix D for an inventory of municipal facilities.

Significant population growth is not anticipated for the next 8 years. Other than routine maintenance and planned system upgrades, the existing municipal facilities should be adequate for this anticipated time period. Existing levels of municipal services should also be sufficient for this anticipated future demand. The Implementation Matrix lists planned future implementation activities, including an indication of priority, anticipated costs and financing.

Water and Sewer Services

Village Water System

The Village Charter established a Water Commission to set water rates and develop all the rules and regulations for the control and operation of the Village Water Department. The Department provides municipal water service for the incorporated Village as well as areas south along Andover Road and east along Pleasant Street Extension and Pine Hill Road areas. Average daily water use is approximately 220,000 gallons. There are approximately 1,000 people and 800 units served by the system. The system is funded by user fees and customers are billed bi-annually.

The source of the water supply is the protected aquifer, discussed in the Natural Resources Chapter, along the southern and eastern sides of Ludlow (Okemo) Mountain and northern side of Terrible Mountain. There are water supply protection measures in place including an ordinance dealing with construction in the aquifer district and a written, wellhead protection plan. The supply and the delivery system are in compliance with the Clean Water Act.

Recent water system upgrades added 400,000 gallons of water storage, increasing total system storage capacity to 1 million gallons.

At this time, the public water supply is sufficient for the existing service area. Ludlow's planning and regulatory documents allow for controlled incremental expansion of this service area to meet development needs.

The Ludlow (Okemo) Mountain area is served by 22 private water supply systems, including condominiums, Okemo Mountain Resort, mobile home park and other developments. These private water systems are regulated by the Vermont Water Supply Division.

The remainder of Town is served by on-site wells.

Village Wastewater System

The Village of Ludlow Wastewater Department provides municipal sewer service. The primary service area is the incorporated Village. The sewage system has been expanded in recent years to serve developments on Ludlow (Okemo) Mountain, including Jackson Gore. There are approximately 1,800 residential sewer users and approximately 100 commercial users. Hook-on and user fees fund the sewer system. Customers are billed bi-annually. The sewage treatment plant is located to the east of the Village just off VT Route 103. Recent system improvements increased the regulated facility capacity to 1,050,000 gallons per day. The average flow is at approximately 37% of total capacity. A \$2.9 million wastewater treatment facility upgrade has been approved by the voters and should be completed by 2020. With those upgrades, the system should provide sufficient capacity to meet anticipated growth for the foreseeable future.

The remainder of Town is served by on-site septic systems, regulated by the Vermont Wastewater Management Division.

Electrical Services

As discussed in the Energy Chapter, the Village of Ludlow Electric Light Department and Green Mountain Power (GMP) supply electricity. The general service areas for both providers are defined in the Energy Chapter of this Plan. The Current Land Uses and Facilities Map of Ludlow illustrates electrical transmission lines. Existing service capacity is considered sufficient to meet current and future demand.

Monthly winter energy peaks are evaluated to establish peak demand estimates. Generally, ISO New England raises costs to utility companies in response to increases in local peak demand. Ludlow Electric Light has developed Demand Side Management programs (DSMs), which are designed to maintain or lower peak demand and help avoid escalating consumer costs. Ludlow Electric also encourages customers to contact Efficiency Vermont for tips on reducing their consumption. Other DSM techniques include weatherizing buildings, using energy star rated appliances, energy star rated buildings, lighting upgrades (e.g. LED lighting).

Communication Services

Access to modern communication networks is considered essential to the public welfare, access to educational opportunities and economic development efforts.

Telephone service is provided by Telephone Data Services (TDS). Other telecommunications services in Ludlow include cellular phone, paging, Internet access and cable television, which are provided by Comcast or TDS. Internet speeds are adequate in some parts of Ludlow (largely within the Village), but inadequate elsewhere. Similarly, cell phone coverage is good in some areas, and not good in others. A local access television channel broadcasts public meetings and hearings. The municipality maintains a web site (www.ludlow.vt.us) that provides easy access to public records and information.

Cell phone service is desirable by most residents and visitors. However, siting and construction of telecommunications towers can negatively impact scenic resources vital to a Town's and surrounding communities' economic future and cultural richness. The Town of Ludlow adopted the Telecommunication Facilities Ordinance in 2008 in order to balance the benefits of an

integrated and modern telecommunications network, with minimizing negative impacts of its development.

Solid Waste Disposal Services

Ludlow is part of the Southern Windsor/Windham Counties Solid Waste Management District (SWCSWMD), which has prepared a Solid Waste Implementation Plan.

Ludlow collects solid waste and recyclables at the Ludlow transfer station located at 336 VT Route 100 South. Residents of Ludlow are required to purchase a vehicle sticker in order to use the transfer station and use Town issued trash bags. Construction and/or demolition debris is weighed at the transfer station and the driver is charged accordingly. Only waste generated in Ludlow is allowed at the transfer station.

Household hazardous waste collections are sponsored twice a year by the District to collect materials that are banned from landfills and incinerators. These collections are free for Ludlow residents; businesses must pre-register and pay for hazardous waste collection.

The transfer station has sufficient capacity to accommodate the community's needs for the foreseeable future. Organic wastes are currently being collected in accordance with Act 148.

Recreational Services and Facilities

Recreation is a vital component of Ludlow's economy and quality of life. During the 2018 public outreach process, strong support was shown for focusing on improvements that make Ludlow a great place to live, including promoting the community as a recreation destination and investing in our municipal recreation facilities. There was also support expressed for constructing a bike path, establishing a dog park, and maintaining access to existing recreational opportunities.

The Parks and Recreation Department offers a wide variety of recreational programs for the community. Services are administered, through a paid Director, a Recreation Committee and volunteers. Current programs include a co-ed softball league, an eight-week summer youth recreation program, adult and youth soccer leagues, concerts, karate for kids, little and minor league baseball, ice-skating, a men's basketball league, festivals, dances, sports tournaments, swimming, and other activities. See the municipal inventory in Appendix D. A number of Class 4 roads and trails are valued for recreational uses, such as hiking and snowmobiling, including Green Mountain Turnpike (Old Route 103). Ludlow [Side Hill Cronchers](#), a local snowmobile club affiliated with VAST, maintains the local snowmobile trail network.

In the private sector, skiing, snowboarding, adventure park, mountain bicycling and golf are available at Okemo Mountain Resort.

Health and Safety Services

Ludlow's police, fire and ambulance services serve both the Town and Village.

The police force, with nine full-time employees and six part-time employees, provides 24-hour daily service, including dispatch, throughout the Village and Town. The force responded to

1,624 criminal incidents in 2016. Current police services are considered adequate to meet demand.

Ludlow's Volunteer Fire Department has a current force of 38 regular and five junior members, providing service to the Town and Village as well as answering mutual aid calls in neighboring towns. In 2016, the Department responded to 166 calls. Ludlow's fire protection facilities are considered sufficient to meet existing and estimated, foreseeable future needs. Like many towns in Vermont, Ludlow struggles to find adequate volunteer members.

The Ludlow Ambulance Squad provides ambulance service throughout the municipality and in surrounding towns. The Squad has 26 active members and one full-time paramedic, and houses a mass-casualty incident trailer. In the 2016 fiscal year, the Squad answered 735 calls. The Squad is well trained and their services are generally considered to be adequate to meet current and anticipated future needs. Ludlow also struggles to find adequate volunteer members.

Besides the above health and safety services, Ludlow is designated by the State of Vermont as a public service E-911 answering site. Ludlow is currently having conversations with neighboring towns about exploring the possibilities of regionalization of services or volunteer recruitment efforts to better provide cost-effective and sustainable emergency services.

Ludlow's Capital Budget and Program should be regularly updated with capital needs for health and safety services, such as vehicle replacements and technology/equipment purchases.

5.5 Education

Presently, education is provided for grades K-12 in Ludlow. Students in grades K-6 attend Ludlow Elementary School with an annual enrollment that ranges between 110 and 150 students. Enrollment in the 2016-2017 school year was 118. School facilities include a multipurpose room, gym, cafeteria, art room, library, and 13 classrooms. Special education is taught in one of the classrooms. The Elementary School has a small playground beside the school and shares the gym with the High School.

In 2018-19, students in grades 7 through 12 from Ludlow, Mount Holly and Plymouth attend Black River Union High School. Attendance ranges from around 150 to 250 students annually, with an enrollment of 150 students in 2016-2017. The facilities include 19 classrooms. Additional space is shared with the Elementary School for gym, chorus, home economics, and industrial arts. By June 2020, the Black River Union High School will close. Families of students in grades 7 through 12 will have school choice after that. How the school building will be used after June 2020 needs to be considered (e.g. alternative school, housing project, etc.). The building is owned by the Two Rivers Supervisory Union.

The Ludlow Municipal Transit System provides transportation to and from school.

Post-secondary or alternative adult education are not currently provided in Ludlow. These options are available within reasonable commuting distance in nearby communities, including

Springfield, Brattleboro, and Rutland in Vermont as well as Claremont and Lebanon in New Hampshire. Vocational training, workshops, and other educational opportunities are provided through the River Valley Technical Center in Springfield. Workforce training is commonly identified as a need for economic development.

In January 2011, the municipality opened the new Ludlow Community Center. This facility includes a cafeteria, gymnasium, weight and exercise facilities, and meeting space. The cafeteria is used by Ludlow Elementary and Black River High School students for breakfast and lunch. Space is also available for use by the schools for large assemblies, plays, concerts, and other activities. Furthermore, the gymnasium is available to the schools for activities when needed. In keeping with joint goals of both the municipality and the schools, the facility is used for many community activities.

Child Care & Early Education

Child care is an important component of providing quality early educational services for children in Ludlow. It is also an important consideration for employers and families with young children. Ludlow Elementary School provides a preschool program, currently with an enrollment of 30 children. This program has met the gold standard of accreditation by the National Association for the Education of Young Children (NAEYC).

In 2017, Ludlow has four licensed child care facilities and three registered family child care homes according to the Department for Children and Families. There are an additional twelve child care providers in the surrounding towns.

5.6 Energy

Appendix H contains the full Enhanced Energy Plan for Ludlow. The discussion below is a summary of the Enhanced Energy Plan.

The intent of this plan is to address the requirements of Act 174 of 2016 and to meet the enhanced energy planning standards developed by the Vermont Department of Public Service (DPS). This document was prepared based upon the Guidance for Municipal Enhanced Energy Planning Standards (DPS; March 2, 2017) in order for the Ludlow Municipal Development Plan to be given greater weight in the Section 248 process. The Southern Windsor County Regional Planning Commission issued a Certificate of Energy Compliance for Ludlow's Municipal Plan that was adopted by the Selectboard in 2017 and the Trustees in 2018. The Town and Village of Ludlow hereby adopt the goals established in the 2016 Comprehensive Energy Plan for Vermont, and through the detailed policies and actions contained in this plan, Ludlow will strive to achieve these goals, including:



Meet energy needs from renewable sources

25% by 2025

40% by 2035

90% by 2050

It will be difficult to reach these goals, as it will require significant levels of change to reduce our energy usage in how we heat our homes and businesses, travel for our daily needs, and how much electricity we use. The Enhanced Energy Plan establishes “targets” only to illustrate the level of change needed to reach our energy goals. It will not be easy. Weatherization of homes and transportation are two areas that will be a particular challenge.

Ludlow has identified a number of “pathways” for the community to address these energy goals. It will involve efforts to conserve energy and increase energy efficiencies, reduce energy demand for transportation (e.g. reduce single-occupant vehicle travel; promote walking, bicycling and public transit; install electric vehicle charging stations; and other measures), promote land use patterns and densities that encourage energy conservation, and encourage renewable energy generation as articulated in the Enhanced Energy Plan in Appendix H.

5.7 Community Policies

The following policies correspond to the Community sub-sections of this Plan. *Policies are the principles or standards that the municipality has established in order to further the goals of this Plan. Policies serve as a basis for land use regulations and are intended to influence Act 250 and Section 248 proceedings.*



- 5.7.1.1 Land use regulations will provide for the equal treatment of housing in accordance with [24 V.S.A. § 4412](#) and further fair housing practices [[9 V.S.A. § 4503](#)].
- 5.7.1.2 At least 15% of all units in proposed large developments, of 10 or more units in size, will be perpetually affordable as defined in 24 V.S.A. Chapter 117.
- 5.7.1.3 The land use permitting process will enable a more diverse range of housing options for residents, such as accessory dwelling units, duplexes, bungalow courts, townhouses, live/work units, co-housing, and tiny houses.
- 5.7.1.4 Encourage the rehabilitation of larger buildings located within the village for safe and affordable housing (e.g. rental units, or a combination of offices and apartments). To do this, the Village will work in coordination with local/regional housing trusts, and will

consider offering incentives, such as expedited permit review procedures and Village Center tax credits.

- 5.7.1.5 Expand housing options that support local businesses, such as increasing the availability of rental properties for seasonal employees.



- 5.7.2.1 Promote village revitalization and maintain the village center’s function as the cultural and commercial center for the community. Encourage the adaptive reuse of existing buildings within the Village.

- 5.7.2.2 Diversify the economy by attracting new businesses to Ludlow, including small-scale, high-tech manufacturing, local food systems related businesses, and creative economy enterprises.

- 5.7.2.3 Encourage new businesses or renewable energy generation facilities to be established on vacant land in the Dean R. Brown, Jr. Industrial Park.

- 5.7.2.4 Prioritize redevelopment of brownfield sites over greenfield sites.



- 5.7.3.1 Enhance and maintain the transportation infrastructure to further village revitalization goals and to provide a pleasant pedestrian experience within the Village. This involves: slowing the prevailing speed of traffic, improving the safety and connectivity of sidewalks and crosswalks, accommodating bicycle facilities, installing bicycle parking, constructing streetscape improvements (e.g. street lights, trees, flowers, wayfinding signs), enhancing or expanding bus stops, and making parking improvements.

- 5.7.3.2 Encourage bicycling through the following means:

- a. Maintain existing roads to promote safe bicycling, including clearing dirt and debris from the shoulders, making strategic improvements to remove obstacles (e.g. drainage grates, broken/jagged guardrail), and keeping up with a strategic repaving program.
- b. Expand roadway shoulder width on popular bicycle routes, where needed based on prevailing conditions.
- c. Explore ways to construct planned multi-use paths, connecting the Village to destinations, such as Fletcher Fields, Jackson Gore and the Lakes District.

- 5.7.3.3 Proposed developments must not cause undue adverse traffic congestion or safety hazards.

- 5.7.3.4 Developments along VT Routes 100 and 103 must incorporate sound access management practices into their site plans. Sound [access management](#) include measures that improve safety, minimize traffic delays, avoid unnecessary curb cuts and intersections, and share commercial accesses and parking.
- 5.7.3.5 Development roads and driveways must meet all applicable municipal standards in order to provide for public safety, stormwater management, and emergency vehicle access.
- 5.7.3.6 Development is allowed on Class 4 town highways only with written permission from the local legislative body or after the road is legally reclassified as a Class 3 town highway. In order to reclassify a road, the developer will be responsible for upgrading the road to town standards.



- 5.7.4.1 Maintain the existing municipal water and wastewater systems in order to further the goals of this Municipal Plan.
- 5.7.4.2 Expand the municipal infrastructure networks only as needed to serve those areas specifically identified in this plan for growth and development (e.g. Dean R. Brown, Jr. Industrial Park).
- 5.7.4.3 Ensure that new development within the associated service areas connects to the municipal water and wastewater systems.
- 5.7.4.5 Control development in order to protect the municipal drinking water source (e.g. Aquifer Protection Overlay District).
- 5.7.4.6 Ludlow Electric will continue to provide reliable electricity at competitive costs within their service area.
- 5.7.4.7 All utility projects (e.g. water, sewer, power, telecommunications) must not have undue adverse impacts on important natural, scenic and cultural resources as identified in this plan.
- 5.7.4.8 New telecommunication towers and facilities should be sited and constructed only as required to meet the Region’s changing needs. Existing telecommunications tower and facility space must be utilized for collocation to the fullest extent possible. New telecommunication towers and facilities must not be sited or constructed when a practicable alternative exists.
- 5.7.4.9 Ensure that residents have access to a robust and modern communication networks (e.g. town-wide cell phone coverage, fast internet speeds).



- 5.7.4.10 Support adequate funding levels to maintain the municipal recreation facilities.
- 5.7.4.11 Develop a plan to maintain and enhance Ludlow’s existing recreation facilities, and incorporate priority investments into the Capital Budget and Program.
- 5.7.4.12 Developments will be required to maintain access to or provide an easement or ROW for existing and planned recreational trails or paths including, but not limited to, hiking, mountain biking, equestrian and cross country skiing.



- 5.7.5.1 Ludlow will work with the school district to continue providing access to a quality educational for all students, and to plan for the transition when the Black River Union High School closes and school choice begins.
- 5.7.5.2 Maintain access for students to attend the River Valley Technical Center in Springfield.
- 5.7.5.3 Encourage the development and operation of child care facilities in locations that are both consistent with this Plan and convenient for Ludlow residents and businesses.

6 Plan for our Future

Our vision is for Ludlow to be a great place to live, work and play. The purpose of this section of the plan is to articulate how land use development patterns are desired in a way that furthers our community vision as described in more detail in Section 2. In general, this entails encouraging growth and investment in areas that are served by municipal infrastructure, and in ways that contribute toward Village Center revitalization, maintains Ludlow's unique sense of place, and is consistent with [smart growth principles](#) as defined in statute.

6.1 Existing Conditions

Existing land use patterns are depicted on the Current Land Use Map (see the Appendix B). Relatively dense development defines the immediate Village area. Land uses are primarily a mix of commercial and residential, interspersed with governmental, office, institutional, and small industrial uses. These uses are beginning to expand out from the core area south along VT Route 103 and at the base of Okemo Mountain Road, as well as along VT Route 100 north of VT Route 103.

Outside the Village, concentrations of seasonal residential development are in the area surrounding the ski area. The village sewer services all these high concentration areas. The tendency is to build large and expensive second home/rental development and tourist related commercial services.

High concentrations of residential/seasonal use occur around Lakes Rescue and Pauline. Old existing septic systems along the lakes contribute to water quality problems. Development in the lakes district is mostly on small parcels initially intended for small summer camps. Recently these old camps are being expanded for year-round usage or rebuild as large vacation homes.

Okemo Mountain Resort (now owned by Vail) has developed land on Ludlow (Okemo) Mountain for recreation, and resort/second home uses. Okemo Mountain Resort has incrementally expanded into a four-season resort over the past two decades.

Okemo State Forest (2,000 acres) and Tiny Pond Wildlife Management Area (517 acres), both located along Ludlow's western border, are used primarily for forestry, wildlife habitat, and outdoor recreation.

Two industrial sites are located within the VT Route 103 transportation corridor: a talc mining operation on East Hill Road (Town Highway 29), and an industrial park on Pleasant Street Extension (Town Highway 26).

Though active farming is no longer a major land use in Ludlow, small pastures, open fields and tracts of prime agricultural soils dot the landscape and provide scenic diversity. Many large parcels of land have been subdivided into 10-acre lots in order to avoid State land use regulations.

Recreational land uses include skiing, golfing, mini-golfing, swimming, fishing, boating, and canoeing, hunting, mountain coaster riding, hiking, bicycling, and snowmobiling trails. Recreational facilities include but are not limited to Okemo Mountain Resort, the Black River,

Lakes Rescue and Pauline, Okemo State Forest, Dorsey Park, West Hill Recreation Area, Okemo Valley Golf Course, and Cook Pond.

The Current Land Use and Facilities Map (see the Appendix B) illustrates sites for non-recreational public and semi-public lands, including the water supply and sewage treatment plants, other municipal facilities, cemeteries, churches, schools, Black River Senior Center, Black River Academy Museum, Ludlow Community Center, which includes Black River Good Neighbors, food shelf, thrift shop and LPC TV, Ludlow Area Community Garden, Fletcher Farm and the Fletcher Free Library. These uses are dispersed community-wide to facilitate service and for compatibility with neighboring uses.

6.2 Desired Future Conditions

In accordance with the State Planning Goals, future development is desired to further the existing settlement patterns by concentrating most commercial, multi-unit residential and civic uses in the village center and surrounding residential areas where infrastructure supports higher-densities, and maintaining a rural countryside in the surrounding areas to support a working landscape and low-density residential uses and home occupations. The resort area is anticipated to continue much as it is today, while also accommodating future changes to remain a successful recreation destination, while also meeting the vision for the community.

The Future Land Use map is a representation of the land use patterns that the community would like to see develop in the years to come. The future land use designations described below correspond with the designations included on the Future Land Use map. Together, this information is intended to show the types and relative concentrations of development that are most appropriate for different parts of Ludlow. This section is intended to guide the future development of the Town and Village, serve as a basis for zoning bylaws, and to provide clear guidance to landowners and developers to help locate and design projects in an efficient and locally acceptable way.

VILLAGE OF LUDLOW

Village Mixed Use

This area includes the Village Center that serves as Ludlow's traditional, compact commercial center that has a mix of commercial, civic and residential uses, and public gathering places. The state-designated Village Center is shown as an overlay on the Future Land Use Map. This area is the focus of local revitalization efforts as described in more detail in Section 5.2. The Village Center serves as the primary location for retail and other commercial uses typical of traditional Vermont villages, as well as the most intensive residential development in Ludlow.

This area also includes adjacent mixed use areas that are encouraged to redevelop as an extension of the traditional village center, following the same traditional village land development patterns with multi-modal transportation infrastructure (i.e. sidewalks, on-street parking, bus stops, street trees and other pedestrian amenities).

This combined Village Mixed Use area shall serve as the focus of social and economic activities in the community. Served by public water and sewer services, sidewalks and a more urban roadway network, this area provides for the highest-density of commercial, civic, residential and

other compatible development in the community. Residential or professional office uses are encouraged in the upper floors above commercial uses in this area. Adaptive reuse of historic buildings that maintain the historic architecture are strongly encouraged within the designated Historic District.

Preservation District

This district was created to maintain the special character and architectural integrity of this area. The purpose of this area is to allow appropriate home-based business enterprises and community services without altering the characteristics of this district. The Village of Ludlow Preservation District Guidelines articulates how alterations or additions to existing buildings or new buildings can protect the character of this area.

Village Residential Neighborhoods

This area is mostly served by public water and sewer services, and sidewalks are provided along major roadways within this area. This area shall serve as a medium-density residential area, with a mix of compatible other uses, immediately surrounding the village mixed use area along walkable neighborhood streets. This area shall allow for a mix of compatible housing types that serve a broad spectrum of income levels.

Proprietary Municipal

The proprietary municipal area generally includes publicly owned or publicly conserved lands within the Town and Village of Ludlow. The purpose of this area is to provide for outdoor recreational activities, as well as to conserve forests for sustainable forestry, wildlife habitat, improved water quality and the preservation of Ludlow’s rural character. Since these areas are publicly owned or conserved, future development is limited to sustainable resource management, public access and outdoor recreational facilities.

TOWN OF LUDLOW

Residential-Commercial

The purpose of this area is to provide for limited commercial uses in concentrated areas in order to allow for future commercial growth while also avoiding strip commercial development. These areas are shown on the Future Land Use Map and are generally limited to historic hamlet locations or where existing clusters of commercial uses are present, including Smithville, Tyson and Grahamville. Development in these areas is encouraged to cluster in order to maximize development potential in these limited geographic areas. Access management techniques, such as shared driveways and parking lots, are encouraged in order to minimize construction and maintenance costs, as well as to preserve highway safety and capacity on adjacent state highways.

Rural Residential

Rural residential areas support a number of different low-density uses, including single- and two-unit dwellings, home occupations, small-scale commercial uses (e.g. bed and breakfasts), campgrounds, forest, agricultural and open spaces. The primary objectives for rural residential areas shall be to maintain existing, low-density settlement patterns, encourage agricultural and forestry activities, and maintain the existing rural character, as well as to discourage sprawl and strip development. Future growth shall maintain an overall pattern of a low density rural

countryside in this area and not cause undue adverse impacts to natural and aesthetic resources. Cluster development is encouraged wherever possible, as long as the overall density remains low. Open space and recreational resources should be provided wherever possible.

Outdoor Recreation

This consists of areas designated for large-scale outdoor recreation, including, but not limited to alpine skiing and golfing. Other varied land uses may occur in these areas, but will be comprised primarily of tourism-related housing and service activities. The commercial services provided within this designation will directly support outdoor recreation activity. Clustering of buildings is encouraged in order to maintain open space and protect fragile areas. Special considerations for development in this area include stormwater or low impact development, lighting, landscaping or tree cutting plans, and aesthetic impact analyses in order to minimize impacts on identified scenic and natural resources as noted in this Plan.

Jackson Gore Recreation District

The purpose of this district is to provide for a resort growth center that encourages innovation of design and layout. Through the clustering of units and buildings, open lands become available for recreational uses including winter sports and golf. The Jackson Gore Recreational District provides for 326 residential dwellings units, four season recreation facilities including a Recreation/Health Center, and other uses and structures which compliment a destination resort and recreation area. The Jackson Gore Recreational District includes Public Use Lands consisting of 51.16 acres of open undeveloped land.

Lakes District

The purpose of this district is to preserve and enhance high quality waters, to provide for the beneficial use of public waters by the general public, to protect shore lands of waters which are suitable for development, to maintain low density of development and to maintain high standards of quality for permitted development. Future development must avoid strip development along VT Route 100.

Aquifer Protection District

This district is shown as an overlay on the Future Land Use Map. The District is designated to protect the aquifer recharge area and public drinking water source. Although dispersed, very low density residential uses may occur within the conservation area; future high-intensity development is not suitable and is not allowed in this area.

Industrial

The industrial designation makes provision for uses, which are appropriate for industry. The overriding use within the industrial area will be heavy industry, including mineral extraction and manufacturing. There may be a few remaining residences and commercial uses within the industrial area; however, future residential development is to be discouraged.

Forest Resource

The Forest Resource area is comprised of high priority forest blocks and habitat connectors that are beneficial for water quality, flood resilience, wildlife habitat, timber or maple syrup production and recreation. Priority forest blocks are shown on the Forest Blocks Map and reflected in the Future Land Use Map. This area is based on the highest priority interior forest

blocks and highest priority connectivity blocks available through [VT ANR’s BioFinder](#). A majority of the Forest Resource land area is owned by the state (i.e. Okemo State Forest and Tiny Pond Wildlife Management Area). The remainder includes large tracts of privately owned forestlands. The purpose of the Forest Resource area is to avoid or minimize fragmentation of priority forest blocks. To minimize forest fragmentation, development must be designed and sited in a manner to minimize encroachments and preserve continuous areas of forest blocks by locating structures and roads to the periphery of those areas.

Proprietary Municipal

See the description under Village of Ludlow.

Special Considerations

Wetlands

These are areas, which exhibit suitable soil characteristics and moisture levels, which are defined in the Vermont Wetland Rules. This designation may also encompass lakes, ponds, streams, and other areas of open water. These wetlands must be protected.

Flood Hazard Areas

Any development within flood hazard areas is subject to review under either the Village or Town of Ludlow Flood Hazard Regulations.

Timing of Development

While the Town and Village do not wish to establish a schedule or a timetable for growth, it is the intent of this Plan to encourage the most intensive development to occur in and around the village area. Ludlow may consider phasing larger developments as part of the local land use approval procedure in order to ensure that municipal services have the capacity to accommodate the growth in accordance with Chapter 7, the Ludlow Capital Budget and Program, and department head project review.

6.3 Policies to Guide Ludlow’s Future Development



- 6.3.2.1 Development must be consistent with the future land use categories and map.
- 6.3.2.2 Development must be planned in a way that maintains the historic settlement pattern of a compact village center separated by rural countryside. This includes:
 - a. Supporting commercial and higher density residential development within the village limits where the infrastructure exists to support such development.
 - b. Promoting compact development patterns in locations outside of the Village to encourage easier and less expensive municipal service, energy efficiency, and the preservation of open space.
- 6.3.2.3 Ensure that proposed uses of historic sites and structures maintain important historic characteristics.

- 6.3.2.4 To the extent possible, resolve transportation conflicts associated with land uses (access, traffic circulation, parking, and pedestrian/vehicle conflicts).
- 6.3.2.5 Promote recreation, tourism and travel related businesses.
- 6.3.2.6 Commercial development within the Outdoor Recreation district must be limited to those functions directly related to and in support of recreation, and must be consistent with any master plan approved for the development.
- 6.3.2.7 Development must be undertaken in accordance with Smart Growth Principles as defined in 24 V.S.A. §2791(13).
- 6.3.2.8 Franchise architectural design does not contribute toward maintaining Ludlow's sense of place, and is therefore not desired.
- 6.3.2.9 Drive-through, drive-up and drive-in restaurants and bars represent automobile-oriented strip development and are not appropriate within any part of Ludlow.
- 6.3.2.10 All housing projects comprising 10 or more units are required to provide some affordable housing units as specified in the zoning regulations as most recently amended.
- 6.3.2.11 Encourage environmentally responsible building practices.
- 6.3.2.12 Encourage new development to maximize energy efficiencies and to accommodate renewable energy systems. If unable to install renewable energy systems at the time of construction, projects should enable future installation of such systems (i.e. [renewable energy ready homes](#), [zero energy ready homes](#)).

7 How to Make it Happen

Implementation of the Municipal Plan’s goals, policies and recommendations will depend on the combined efforts of residents and local officials, as well as the resources of the Southern Windsor County Regional Planning Commission, and other regional, state, federal and private entities involved in land use planning activities.

This Plan can be used at the state and federal levels to justify and prioritize the use of state and federal funds for community development, transportation improvements, natural resource protection and management, and other investments. In addition, Act 250 requires developers to show that projects conform to local and regional plans. This Plan is also used in the local development review process under Local Act 250 Review.

Ludlow should request that the Regional Planning Commission review the Municipal Plan for compliance with the requirements of Act 200. Benefits of Act 200 approval and confirmation include:

- Eligibility for Municipal Planning Grant funding and Village Center designation;
- Ability to levy impact fees if the municipality wishes to do so;
- State agency plans shall be compatible with the Municipal Plan; and,
- An approved plan is not subject to state review under 24 V.S.A. §4351.

Priority recommendations that are found in this Plan are summarized in the Implementation Matrix found in the Appendices. Also in the Appendices is a list of optional tools for municipal plan implementation that may be considered by any municipality.

7.1 Action Plan



The Town and Village of Ludlow have established the following action steps that they wish to pursue in furthering the vision, goals and policies of this plan. Details about each of these action steps can also be found in the Implementation Matrix (see Appendix I).

High Priority

1. Review and update zoning and subdivision bylaws in order to improve consistency with the updated Municipal Development Plan.
 - a. Town Plan Section – Various
 - b. Responsible Party: Planning Commission
 - c. Expected Timing: Within 2 years
 - d. Priority of Need: High
 - e. Generalized Cost Estimate: Low
 - f. Method of Financing: Grants (e.g. Municipal Planning Grant), RPC dues, and/or volunteer effort

2. Coordinate with the Windham & Windsor Housing Trust to promote their existing programs and address local housing issues.
 - a. Town Plan Section 5.1
 - b. Responsible Party: Planning Commission
 - c. Expected Timing: Ongoing
 - d. Priority of Need: High
 - e. Generalized Cost Estimate: Low
 - f. Method of Financing: Volunteer efforts, grants

3. Work with neighboring communities that are actively exploring improved internet and cell phone services. Explore opportunities such as through grants (e.g. Connectivity Initiative) or by establishing Broadband Districts.
 - a. Town Plan Section 5.4
 - b. Responsible Party: Municipal Manager, Village Trustees, Town Selectboard
 - c. Expected Timing: Within 2 years
 - d. Priority of Need: High
 - e. Generalized Cost Estimate: High
 - f. Method of Financing: Grants (e.g. Northern Borders Regional Commission, Connect America)

Medium Priority

4. Identify existing buildings located within flood and erosion hazard areas (i.e. regulatory floodway, floodway fringe, and fluvial erosion hazard areas) that have experienced repeated flood damage, and explore options to mitigate future flood or erosion hazards for those properties.
 - a. Town Plan Section 4.5
 - b. Responsible Party: Planning and Zoning Department
 - c. Expected Timing: 3-5 years
 - d. Priority of Need: Medium
 - e. Generalized Cost Estimate: Low
 - f. Method of Financing: Grants

5. Investigate options to better protect the river corridors, such as preserving or restoring the river channel access to the surrounding floodplains, reducing flood flows with streambank buffers, protection of channel-contiguous wetlands, preserving or supporting a return to more natural channel dimensions, and avoiding new development and infrastructure within river corridors.
 - a. Town Plan Section 4.5
 - b. Responsible Party: Planning Commission
 - c. Expected Timing: 5-10 years

- d. Priority of Need: Medium
 - e. Generalized Cost Estimate: Medium
 - f. Method of Financing: Grants
6. Coordinate with the SWCRPC, VT Agency of Natural Resources, Black River Action Team, and Lake Association to implement the Tactical Basin Plan.
- a. Town Plan Section 4.5
 - b. Responsible Party: Municipal Manager, Planning and Zoning Department, Planning Commission
 - c. Expected Timing: Ongoing
 - d. Priority of Need: Medium
 - e. Generalized Cost Estimate: Low-Medium
 - f. Method of Financing: Grants
7. Promote the tax credit programs available to property owners to help finance investment in eligible buildings for income-producing uses (e.g. retail, restaurants, professional offices, apartments).
- a. Town Plan Section 5.2
 - b. Responsible Party: Planning and Zoning Office
 - c. Expected Timing: Ongoing
 - d. Priority of Need: Medium
 - e. Generalized Cost Estimate: Low
 - f. Method of Financing: No funding needed
8. Consider providing tax incentives for property owners to provide long-term rentals, as opposed to short-term rentals, in order to provide better housing options for employees of local businesses.
- a. Town Plan Section 5.1
 - b. Responsible Party: Municipal Manager, Village Trustees, Town Selectboard
 - c. Expected Timing: Within 2 years
 - d. Priority of Need: Medium
 - e. Generalized Cost Estimate: Medium
 - f. Method of Financing: TBD
9. Work with partner groups (Okemo Valley Chamber of Commerce, Springfield Regional Development Corporation, Ludlow Economic Corporation, and Okemo Mountain Resort) to market the area.
- a. Town Plan Section 5.2
 - b. Responsible Party: Municipal Manager, Planning and Zoning Department
 - c. Expected Timing: 3-5 years

- d. Priority of Need: Medium
 - e. Generalized Cost Estimate: Medium
 - f. Method of Financing: Grants (e.g. USDA Rural Business Development Grant)
10. Maintain Village Center Designation, or consider applying for Downtown Designation, in order to help achieve the goals of the Plan.
- a. Town Plan Sections 5.2, 6.2
 - b. Responsible Party: Municipal Manager, Village Trustees
 - c. Expected Timing: 3-5 years
 - d. Priority of Need: Medium
 - e. Generalized Cost Estimate: NA
 - f. Method of Financing: No funding needed
11. Complete a village revitalization master plan
- a. Town Plan Section 5.2
 - b. Responsible Party: Municipal Manager, Planning and Zoning Department, Planning Commission, Village Trustees
 - c. Expected Timing: Within 2 years
 - d. Priority of Need: Medium
 - e. Generalized Cost Estimate: Medium
 - f. Method of Financing: Grants (e.g. Better Connections Program, Vermont Community Development Program)
12. Establish local funding to support village revitalization (e.g. revolving loan fund, capital reserve funds).
- a. Town Plan Sections 5.2, 6.2
 - b. Responsible Party: Municipal Manager, Village Trustees, Town Selectboard
 - c. Expected Timing: Ongoing
 - d. Priority of Need: Medium
 - e. Generalized Cost Estimate: Medium
 - f. Method of Financing: TBD
13. Evaluate the feasibility of providing and/or using alternative energy sources for power, transportation and building environment.
- a. Town Plan Appendix H
 - b. Responsible Party: Planning Commission
 - c. Expected Timing: Within 2 years
 - d. Priority of Need: Medium
 - e. Generalized Cost Estimate: Low-Medium
 - f. Method of Financing: Grants

Low Priority

14. Educate land owners about programs that can help to protect important farm or forest lands, such as conservation easements, Vermont's Use Value Appraisal (or Current Use) Program, and Vermont's Forest Legacy Program.
 - a. Town Plan Sections 4.2, 4.3
 - b. Responsible Party: Planning Commission
 - c. Expected Timing: Ongoing
 - d. Priority of Need: Low
 - e. Generalized Cost Estimate: Low
 - f. Method of Financing: No funding needed

15. Evaluate adopting a short-term rental ordinance.
 - a. Town Plan Section 5.1
 - b. Responsible Party: Planning Commission
 - c. Expected Timing: Within 2 years
 - d. Priority of Need: Low
 - e. Generalized Cost Estimate: Low
 - f. Method of Financing: Grants (e.g. Municipal Planning Grant)

16. Work with the Okemo Valley Chamber of Commerce, local businesses, The Current and other partners to explore options for public transit service enhancements and/or car sharing, such as Uber.
 - a. Town Plan Section 5.3
 - b. Responsible Party: Municipal Manager
 - c. Expected Timing: Ongoing
 - d. Priority of Need: Low
 - e. Generalized Cost Estimate: Low
 - f. Method of Financing: Grants (e.g. Federal Transit Administration 5311 Formula Grants for Rural Areas)

17. Study the feasibility of merging the Village of Ludlow with the Town of Ludlow. Consider working with VLCT or MRI if objective third party analysis is needed/desired.
 - a. Town Plan Section 5.4
 - b. Responsible Party: Municipal Manager, Village Trustees, Town Selectboard
 - c. Expected Timing: Within 2 years
 - d. Priority of Need: Low
 - e. Generalized Cost Estimate: Low
 - f. Method of Financing: General Funds

18. Update the Capital Budget and Program, and seek funding to implement high priority municipal facility capital projects as identified in this plan.
 - a. Town Plan Sections 5.3, 5.4
 - b. Responsible Party: Municipal Manager, Village Trustees, Town Selectboard, Department Heads
 - c. Expected Timing: Within 2 years
 - d. Priority of Need: Low
 - e. Generalized Cost Estimate: Low
 - f. Method of Financing: Grants (e.g. Municipal Planning Grant)

19. Develop an open space or community recreation plan to inventory facilities, explore opportunities, identify priority improvements, and establish clear implementation steps.
 - a. Town Plan Section 5.4
 - b. Responsible Party: Planning Commission, Recreation Commission
 - c. Expected Timing: 3-5 years
 - d. Priority of Need: Low
 - e. Generalized Cost Estimate: Low-Medium
 - f. Method of Financing: Grants (e.g. Better Connections Program, Municipal Planning Grant)

7.2 Implementation Tools

There are a variety of tools to assist the Town and Village to implement this Plan including, but not limited to, the following:

Non-Regulatory Implementation Tools

1. Capital Budget & Program [24 V.S.A. §§ 4403 & 4430]
2. Tax Stabilization Contracts [24 V.S.A. § 4403, 32 V.S.A. §4969]
3. Special Assessment Districts
4. Purchase or Acceptance of Development Rights [24 V.S.A. § 4403, 10 V.S.A. Chapter 155]
5. Plans or Inventories Supporting the Municipal Plan [24 V.S.A. § 4403]
6. Advisory Commissions or Committees [24 V.S.A. § 4403]
7. Tax Increment Financing (TIF) [24 V.S.A. § 4403, 24 V.S.A. Chapter 53]
8. Designation under the Vermont Downtown Program
9. Local conservation fund to purchase important natural lands

Regulatory Implementation Tools

1. Permits for highway access or work within municipal Rights-of-Way [19 V.S.A. §1111]
2. Village/Town Highway & Bridge Standards [19 V.S.A. §304(a)(23)]
3. Subdivision regulations [24 V.S.A. §4418]
4. Zoning bylaws [24 V.S.A. §§ 4411, 4414]
5. Site Plan Review [24 V.S.A. §4416]

6. Local Act 250 Review [24 V.S.A. §4420]
7. Official Map [24 V.S.A. §4421]
8. Impact Fees [24 V.S.A. Chapter 131]
9. Adequate Public Facilities and Phasing of Development [24 V.S.A. §4422]
10. Transfer of development rights [24 V.S.A. §4423]
11. Shoreland or Flood Hazard Area Bylaws [24 V.S.A. §4424]
12. Other Ordinances [24 V.S.A. Chapter 59]

Other Tools

1. Municipal participation in the Public Utility Commission’s review of public utility projects that require a Certificate of Public Good under 30n V.S.A. §248.
2. Ludlow Enterprise Fund
3. Ground-Mounted Solar Plant Screening Bylaws [24 V.S.A. §4414(15)]

Funding Opportunities

Many of the identified steps to implement this plan will require money to accomplish (see Section 7.1). The following list identifies a number of possible funding opportunities to assist implementing the action plan. This list is not comprehensive and programs may change over time.

1. Municipal Annual Operating Funds is an option for smaller capital cost items and ongoing operational funding.
2. Create a capital reserve fund to raise the needed funds for capital expenses or to provide the local match on grants for large projects. The purpose of this option is to raise funds in advance of an anticipated capital expense in order to reduce the amount that must be financed or funded by other means. By doing this properly, the municipality can avoid major spikes in annual budget spending over the years.
3. Preparing a capital improvement plan, which is a valuable multi-year municipal capital planning process. This refers to a more informal capital planning effort, the end result of which is not adopted like a Capital Budget and Program (described below).
4. Prepare and adopt a [Capital Budget and Program](#) under 24 V.S.A. §4430 for bigger capital budget costs identified in this plan. By planning the future expenditures that are identified in this plan, priorities may be needed and project ideas further refined based upon available funds.
5. The [Downtown Transportation Fund](#) is a competitive funding opportunity for municipalities to help pay for transportation-related capital improvements within or serving a Designated Downtown. Typical projects include parking facilities, pedestrian and streetscape improvements, and utility relocation.
6. Electric vehicle charging stations can be funded through the [Electric Vehicle Supply Equipment Grant Program](#).

7. The [Better Connections Program](#) is a competitive annual grant opportunity for planning projects that seek to increase transportation options, build resilience, and strengthen economic vitality in Vermont's community centers.
8. The [Bicycle and Pedestrian Program](#) is an annual competitive funding opportunity through VTrans that can fund a variety of bicycle and pedestrian projects, including sidewalks, crosswalks, pedestrian structures and bike paths. A 20 percent local match is usually required.
9. The [Transportation Alternatives Program](#) is another competitive reimbursement funding program from VTrans. Eligible projects are those that have an environmental mitigation and water quality benefits. In previous years eligible projects included a range of things such as sidewalks, bicycle infrastructure, traffic calming techniques, lighting and other safety-related infrastructure, and transportation projects to achieve compliance with the Americans with Disabilities Act of 1990. A maximum award of \$300,000 is available, with a 20% local match.
10. The Town Highway Class 2 Roadway Program (see Section 5 of [the Orange Book](#) for more details), which is available through the VTrans Maintenance District Offices. A maximum grant of \$175,000 is available for resurfacing or reconstruction of Class 2 town highways. A 30% local match is required, but the match is reduced to 20% for towns that have adopted 2013-compliant highway codes and standards and conducted a highway infrastructure study per VTrans requirements.
11. Low interest loans (1%) from the [State Infrastructure Bank](#) can be used for roadway, bridge, pedestrian and public transit facility projects.
12. [Regional Brownfield Program](#) funding may be available through the Southern Windsor County Regional Planning Commission for the assessment and cleanup of contaminated sites.
13. The [Vermont Community Development Program \(VCDP\)](#) assists communities on a competitive basis by providing financial and technical assistance to identify and address local needs in the areas of housing, economic development, public facilities and public services
14. [Municipal Planning Grants](#) help municipalities build and enhance the local framework to guide growth and development in step with the community's goals, values and aspirations. Grants fund town plans and updates, zoning bylaws and other planning-related projects.
15. The [Historic Preservation Grant Program](#) helps municipalities and non-profit organizations rehabilitate the historic buildings that are a vital part of Vermont's downtowns, villages, and rural communities, as well as its iconic landscape.

16. [Barn Preservation Grant Program](#) helps individuals, municipalities, and non-profit organizations to rehabilitate the historic agricultural buildings that are a symbol of Vermont's rural landscape.
17. [State income tax credits](#) are available to business and property owners with buildings constructed prior to 1983 and located within a State designated downtown or village center. Credits can help defray the cost of historic rehabilitation, façade and code improvements and technology upgrades.
18. [Federal Rehabilitation Investment Tax Credits](#) (RITC), administered by the National Park Service, a 20% federal income tax credit is available for rehabilitation of income-producing historic buildings, including multi-family housing. Properties must be listed in the National Register of Historic Places and work must meet preservation standards.
19. [Downtown Sales Tax Reallocation](#): municipalities and a project developer may jointly apply to reallocate sales taxes generated by a project located within a designated downtown district. Examples of projects include parking garages, pocket parks and other municipal improvements that enhance the qualified project.
20. [Tax Increment Financing Districts](#): municipalities with a designated downtown or growth center may create a tax increment financing (TIF) district to help pay for the public infrastructure (streets, sewer, water, or parking facilities) needed to support new development.
21. [Caring for Canopy Grants](#) provides seed money to help communities care for tree canopy and foster tree stewardship by taking the necessary actions to develop and sustain a community-wide tree program.
22. The [Connectivity Initiative](#) is the only state program addressing broadband development. Funded by proceeds from the Vermont Universal Service Fund, Connectivity Initiative grants are awarded to internet service providers that agree to extend service to designated areas least likely to be served through the private sector or through federal programs.
23. [Economic Impact Initiative Grants](#) from USDA Rural Development provides funding to assist in the development of essential community facilities in rural communities with extreme unemployment and severe economic depression.
24. [Community Facilities Direct Loan & Grant Program](#) from USDA Rural Development provides funding to develop essential community facilities in rural areas.
25. [Rural Community Development Initiative Grants](#) from USDA Rural Development provides funding to help non-profit housing and community development organizations support housing, community facilities, and community and economic development projects in rural areas.
26. [Water & Waste Disposal Loan & Grant Program](#) from USDA Rural Development provides funding for clean and reliable drinking water systems, sanitary sewage disposal,

sanitary solid waste disposal, and storm water drainage to households and businesses in eligible rural areas.

27. [Rural Business Development Grants](#) from USDA Rural Development combines the former Rural Business Enterprise Grant (RBEG) and Rural Business Opportunity Grant (RBOG) Programs. According to the website, a rule is currently being developed in order to implement this program.
28. [Our Town](#), which includes two grant programs from the National Endowment for the Arts, provides funding for creative placemaking projects that contribute to the livability of communities and place the arts at their core.
29. Vermont Buildings and General Services [Building Communities Grants Programs](#) provide funding opportunities for recreational, educational and human service facilities, and for economic development.
30. There are a variety of [grant or loan programs](#) available through the Vermont DEC Facilities Engineering Division for municipal drinking water and wastewater systems.
31. The [Northern Borders Regional Commission](#) was expanded recently to include all of Vermont, making Ludlow eligible for their economic infrastructure grant program.