

2021 to 2029 Town of Belvidere Municipal Plan



Old Home Day photo courtesy of Belvidere Community Club

Adopted by the Belvidere Selectboard on: September 1st, 2021

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CHAPTER 1: THE PLANNING PROCESS

The Town of Belvidere is engaged in a planning process to encourage the appropriate development of land, facilities, and services located within the Town in a manner that will promote the health, safety, and general welfare of its residents. The Belvidere Town Plan provides a framework for the achievement of recognized community goals and policies, while the planning process serves to coordinate public and private actions with these goals and policies. A Town plan can serve as an important function in the evaluation of major developments and protections under Vermont's Land Use and Development Law, Act 250. A plan can also serve as a foundation for implementation of possible future devices such as zoning bylaws and subdivision regulations or as a guide for municipal capital investment. The plan can also serve as an expression of desires and intentions of the town.

Planning is a means of preparing for the future in order to overcome problems, meet opportunities, and achieve community goals. In response to changes in the community, problems must be addressed by comprehensive forethought to ensure that current and future decisions will provide long-term solutions. Since communities exist primarily for the health and enjoyment of those who live in them, it follows that the nature, location, and timing of any future development should be determined by the people of Belvidere. The intent is not to eliminate any existing land uses or to stop future development, but to encourage planned growth within the Town.

Citizen participation is important in the planning process. Opportunities for citizen involvement have been encouraged throughout the Plan update process with open monthly meetings and surveys at yearly town meeting. These efforts are intended to foster public participation, and to utilize the planning process as a vehicle for exercising an inclusive, community-wide vision for the future of Belvidere.

The plan for the Town of Belvidere must consider many interrelated factors. It is helpful to understand Belvidere's history and traditions to give a perspective for considering the present and the future. Present trends and their likely future impact must be analyzed. These components as well as knowledge of the natural resource limitations and suitability for various uses provide the basis for determining what is possible and what may be desirable for our future. To begin, broad public goals should be stated as well as specific goals desired by a significant portion of the town. Consideration of these in light of Belvidere's past and present enables specific policies and implementation plans to be developed in the aspects of Belvidere life that follow.

According Title 24: Chapter 117: Subchapter 005: Municipal Development Plan, § 4382.

Town plans must include the following components:

- statement of growth-related goals, policies, and programs
- explanation of population history and growth
- land use plan
- transportation plan
- utilities, facilities and services plan
- statement of policies about the preservation of rare and irreplaceable natural areas, scenic, and historic features and resources
- educational facilities plan
- economic development plan
- energy plan
- housing element
- flood resilience element
- statement indicating plan compatibility with plans and trends in adjacent municipalities, the region, and the state
- implementation program for the plan's objectives

Overall Community Goals

Although specific goals, policies, and implementation strategies are included within each appropriate section, several broad statements may be made regarding the future of Belvidere. These are included below as overall community goals.

The Goals of the Belvidere Town Plan are:

- To encourage careful growth of the town in such areas and under such conditions that demand for increased services will not significantly raise the tax burden for existing residents.
- To encourage growth so that:
 - Areas of natural beauty and wildlife habitat are not adversely affected but rather enhanced, encouraged, and maintained.
 - Timberland management is economically feasible in the wooded area.
 - Agricultural use of land is encouraged and protected.
 - Residential and commercial growth is permitted in suitable areas.
 - Land use decisions are directed by residents and not outside interests.
- To pursue improved broadband and cell services for Belvidere.

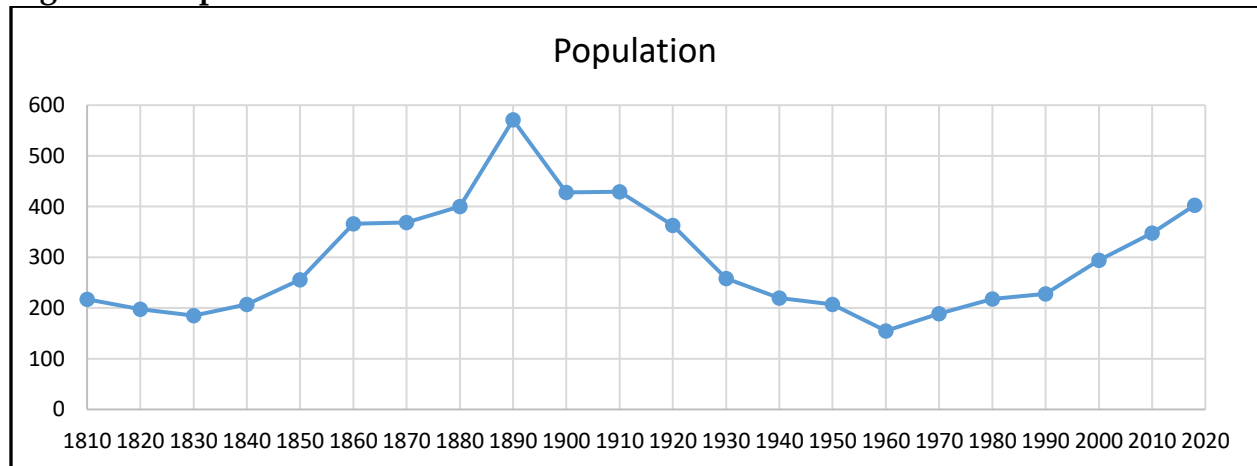
CHAPTER 2: POPULATION AND GROWTH

Population information is needed in order to plan for a community. Belvidere’s historic growth trends and the population’s age structure are information that help decision makers predict and guide the future of our town. Knowing the number of residents in Belvidere, for example, is necessary when evaluating the extent of municipal services required by our citizens. Forecasting future changes in the population, meanwhile, allows the town to look ahead and prepare for the next five or ten years. This is especially important when preparing for the student enrollment predicted in the school system by these forecasts.

Historical Census Counts

Although chartered in 1791, the Town of Belvidere was not settled until after the turn of the century. At this point, the population grew rapidly as families moved to the area and established homesteads. By 1810, the town had 217 residents. Then, after two decades of decline, the population grew again until 1890, when Belvidere’s population peaked at 571 residents (Figure 2.1).

Figure 2.1 Population of Belvidere 1810-2018



Source: <https://data.census.gov/cedsci/>

The Bureau of the Census, an agency within the Department of Commerce, carries out the Census of Population every ten years. In years between the Census counts, American Community Survey (ACS) annually gathers population data on a sample of the population. The most recent ACS population estimates for Belvidere are 403 people in 2018. (Note: ACS data tends to be less accurate than the decennial Census and it will be interesting to compare the 2018 estimates with the 2020 Census Count.)

From 1890 through 1960, the population dropped by nearly 75% to 155 persons. This dramatic decrease in population was most likely tied to the final clearing of the forestland and decline of the timber industry in the region. Aside from these factors, other aspects discouraged recovery from this century-long population decline. The 1927 flood, a huge natural disaster, washed out a number of mills in Belvidere, which were never replaced. In addition, electricity was late in arriving to most of town, as were telephone service, highway improvements, and access to secondary education. While Belvidere Center had electricity by the end of World War II, many homesteads in the rest of town were not put onto the grid until the 1950's. Vermont Route 109, Belvidere's primary connector to other towns in the region, was unpaved, making travel difficult. In 1963, the west end of Route 109, from Belvidere Junction to Belvidere Center, was paved, while the stretch between Belvidere Center and Belvidere Corners remained the last unpaved state highway until the 1980's.

The introduction of these amenities to Belvidere, along with low land prices during the 1960's and 70's spurred modest population growth once again with an increase of 63 people. Growth during the 1980's was then tempered by people moving out of town for job opportunities elsewhere in the region. Fueled by rising land prices in surrounding communities, the population in Belvidere accelerated in the 1990's until, in 2010, the population was recorded at 348 residents. Although more than double what it was in 1960, the town's population was still slightly more than half of its peak in 1890.

Housing Unit Growth

Growth in the number of housing units has generally followed the same trend as population growth. Considering a housing unit vacancy rate of 7% in 2010, housing unit growth is not needed or expected at this time. On the other hand, one in four housing units in Belvidere is seasonal in nature, and conversion from seasonal dwellings to year-round dwellings is difficult to track. If many homes convert during a short time period, provision of adequate municipal facilities and services may be threatened and the tax rate may be impacted (See the Housing Chapter for further discussion on this topic).

Current Population and Age Distribution

The most recent population count for Belvidere is 348 persons (U.S. Census 2010). Age distribution is important in order to predict future service needs, especially schools. Belvidere's population is middle aged, with the greatest age cohort being the forties. About 45% of the population is under 40, while 36% is in their 40s and 50s and 17% is 60 and older. The childbearing age population (20 to 40 year olds) can be used to anticipate future school age population. The current childbearing age population is 22% and is expected to grow to 23%. Recent school enrollment has been relatively constant. It can also be presumed from this data that there will be an increase in retirement groups in the

next few decades, a population that may eventually require additional services such as senior housing options and rural transit.

Regional and Neighborhood Populations

Belvidere is surrounded by rural communities all of which experienced extraordinary growth rates since 1990. While the state grew by 11.1% and Lamoille County at 24%, the county’s northern towns (Eden and Belvidere) grew at a mean rate of 47 percent, four times that of the state and almost twice that of the county.

Belvidere’s growth rate during the 1990’s was part of a local trend. The high growth rate was more likely due to regional issues than programs or policies particular to Belvidere. Belvidere should watch local trends in order to be prepared for future population changes.

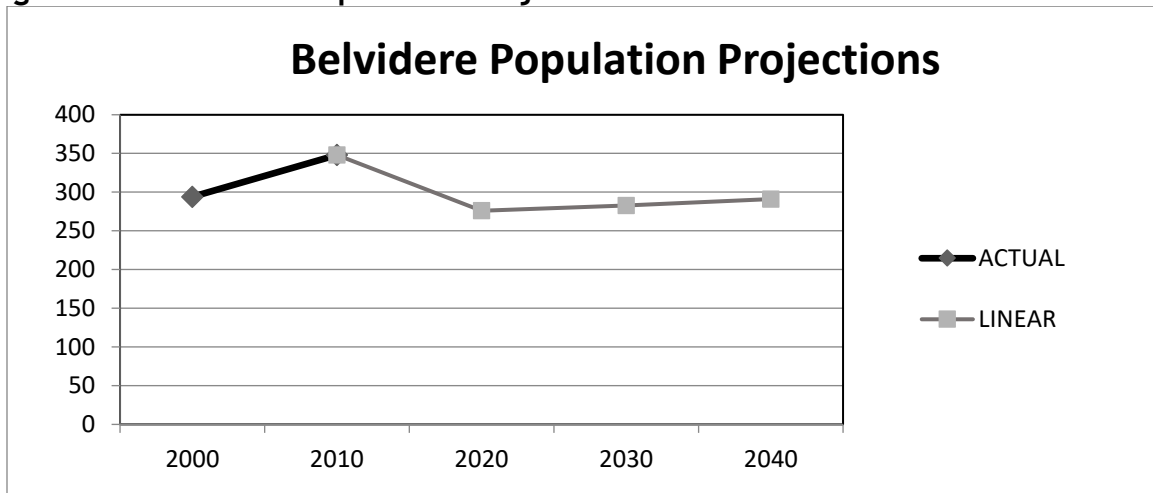
Goals, Policies, and Recommendations

In order to accomplish the primary goal of this town plan - to guide growth so that residents may continue to live in Belvidere without undue tax burdens - the town should monitor population and growth rates to anticipate and cope with situations that impact tax rates. Belvidere’s Town Plan is intended to encourage, guide, and moderate growth.

Table 2.1 Population and Percent Change for Belvidere and Neighboring Towns (1990, 2000, 2010).					
Town	1990 Population	2000 Population	2010 Population	% Change 1990-2000	% Change 2000-2010
Bakersfield	977	1,215	1,322	24.4	8.8
Belvidere	228	294	348	28.9	18.4
Eden	840	1,152	1,323	37.1	14.8
Johnson	3,156	3,274	3,446	3.7	5.3
Montgomery	823	992	1,201	20.5	21
Waterville	532	697	673	31	-3.4
Lamoille County	19,735	23,233	24,475	17.7	5.3
State of Vermont	562,758	608,827	625,741	8.2	2.8
Source: U.S. Census 1990, 2000,2010					

Table 2.1 clearly indicates that Belvidere’s growth rate during the 1990’s was part of a local trend. The high growth rate was likely due more to regional issues than programs or policies particular to Belvidere. Belvidere should watch local trends in order to be prepared for future population changes.

Figure 2.2 Belvidere Population Projections



Base population data: U.S. Census

Population Projections: An average of several population projections

Population and Growth Goals

- Guide development such that provision of school services, road maintenance, and emergency services does not put an undue tax burden on Belvidere property owners, possibly forcing existing inhabitants to leave their homes because of excessive property taxes.
- Encourage appropriate new development that would increase the Town's tax base, local economy, and sense of community

POLICIES

Since Belvidere has no specific zoning regulations, the town is limited to participating in Act 250 proceedings, which would allow review of policies set forth in this Town Plan. Development that may affect rapid population growth in Belvidere over a short period of time include the subdivision of lots, conversion of seasonal to year-round dwellings, and the conversion of single-family homes into multi-family dwellings. The Planning Commission has developed the following policies to moderate growth over time:

- Subdivision development (creating 6 or more lots from one large tract within five years) should be encouraged to expand more slowly, over a 5-10 year time span, to avoid a swift rise in Belvidere's population.
- Any conversion of seasonal dwellings to year-round dwellings must meet state septic standards.
- Any conversion of single-family homes to multifamily structures only must meet state septic standards, and comply with all building and life safety codes.

RECOMMENDATIONS

Belvidere's residents should understand that growth management tools, such as subdivision regulations, may need implementation in years to come in order to maintain the goals and policies outlined in this plan, which encourage the slow and steady increase of our town's population and development. To monitor future growth in Belvidere, the Planning Commission should do the following:

- Review and amend the 'Future Population Predictions' information as new population data becomes available.
- Review the annual population estimates released by the U.S. Census Bureau and VT Department of Health to ensure growth rates are within the town's expectations.
- Review all 'Act 250' applications for their impact on our town's growth rate, and participate in the 'Act 250' process to ensure the concerns of the town are addressed.

CHAPTER 3: HISTORIC, ARCHAEOLOGICAL, AND SCENIC RESOURCES

Belvidere is home to a variety of historic structures and scenic places worth exploring, celebrating, preserving, and protecting. Like many towns scattered along the rivers of Vermont, Belvidere is proud of its history as a 19th century mill town. Listed below is a brief chronology of significant historic events, followed by a description of historic sites and structures in town. This section of Belvidere’s Town Plan describes the ways that historic settlement and industrial development influenced Belvidere’s evolution into the community it is today. Additionally, this section discusses options for preserving and protecting our town’s historic, archaeological, and scenic resources for future generations to appreciate.

Table 3.1 Notable Moments in Belvidere’s History

1791-1796	The town of Belvidere is granted to John Kelly. The grant contains the condition that there must be one actual settlement for every 640 acres of the town’s original 30,100 acres by Jan 1, 1792. Gold mines and pine trees of a certain height are reserved to the People of the State of Vermont. Belvidere is surveyed into 177 lots of land with 200 or so acres in each lot.
1808	The date of the earliest book of deed records for Belvidere. Some of the deeds reference Franklin County records for descriptions of the properties being sold, so it is possible that the earliest records of land sales in Belvidere is located in Franklin County.
1824	Lumbermen discover Asbestos on Belvidere Mountain. A portion of Belvidere is annexed to form the new town of Waterville.
Sept. 4, 1827	Belvidere residents in a town meeting vote to join a partition for a new county on condition that all 12 towns, Belvidere, Cambridge, Eden, Elmore, Hyde Park, Johnson, Mansfield, Morristown, Stowe, Sterling, Waterville and Wolcott, also approve the measure and that the courthouse and jail be built “free from a county tax.” The process of creating this new county takes some time.
Sept. 27, 1828	Belvidere votes to approve a grant of five ranges from the east side of town, including Belvidere Mountain, to the township of Eden.
Oct. 7, 1834	Belvidere’s inclusion in the new “Lamoille County” is finalized.
1865	George Washington Henderson, an African American Civil War soldier and former slave, is believed to have been brought by officer and Belvidere resident Henry Carpenter to his hometown. Here Henderson is said to “learn his letters.” Henderson later goes on to be the first African American inducted into the Phi Beta Kappa academic honorary society and has a career as a minister and university teacher. A Vermont historical roadside marker in Belvidere commemorates this story.
1890	Belvidere’s population peaks with 571 people measured by the Census Bureau.
1893	151 school age children in Belvidere, ages 5-21. Boys: 82, girls: 69.
1894	183 school age children in Belvidere, ages 5-21. Boys: 98, girls: 85.

1896	Part of Avery's Gore in Franklin County is annexed to Belvidere.
1899	Belvidere resident Lewis J. Ingalls is awarded the Congressional Medal of Honor for his heroic actions under fire at Boutte Station, Louisiana, on September 4, 1862.
1927	THE GREAT FLOOD. Many mill sites in Belvidere, which had encompassed much of the economic activity in town, are destroyed. Belvidere never regains its preponderance of mills.
1935	Public Electric Light Company brings the first electric power to Belvidere Center households.
1936	The asbestos mine on Belvidere Mountain, now in Eden, is the only chrysotile asbestos mine in the country and employs many Belvidere residents.
1982	Vermont Route 109 becomes the last dirt state route to be paved, ending the reign of the "gravel gap."
1989	State of Vermont orders Belvidere to build a new school because of capacity and structural issues at the Old Belvidere Central School.
1993	The asbestos mine on Belvidere Mountain ceases operations.

Historic Structures in the State Survey and National Register

Both the State of Vermont and National Park Service develop and keep lists of historic structures for the purposes of identifying them and expressing the importance of their continued existence and preservation. The two covered bridges in Belvidere, like all covered bridges in Lamoille County, are on the national register. There are also many local buildings listed in the state survey. What follows is a list of these structures, including some of the information from the listings that convey their historical importance.

On National Register

Mill Bridge (covered)

On town road across North Branch of Lamoille River, 2.8 miles west of Belvidere Center.

In National Register of Historic Places

Date of Record: 1974

Condition: Good

Period of Significance: 19th Century

Areas of Significance: Architecture, Engineering, Transportation

Morgan Bridge (covered)

On town road across North Branch of Lamoille River, 1.8 miles west of Belvidere Center.

In National Register of Historic Places

Date of Record: 1974

Condition: Good

Period of Significance: 19th Century

Areas of Significance: Architecture, Engineering, Transportation

In State Survey

Potter-Bennett House

At Belvidere Jct., south side of Rte. 109, just west of Belvidere-Waterville town line.

In VT Historic Sites & Structures Survey Date of Record: 1980

Year Built: 1875 Style: Greek Revival Condition: Good

Present Use: Residence

Summary of Significance: It is one of three significant buildings which remain from the once-prosperous hamlet of Belvidere Junction.

Surrounding Environment: Open land, Scattered buildings, Residential.

McCuin House / John B. McCuin Store

At Belvidere Jct., south side of Rte. 109, just west of Belvidere-Waterville town line.

In VT Historic Sites & Structures Survey Date of Record: 1980

Year Built: 1845 Style: Greek Revival Condition: Good

Present Use: Residence

Summary of Significance: It was built c. 1845 as a store, perhaps for John B. McCuin, who lived and did business there for the rest of the century.

Surrounding Environment: Open land, Scattered buildings, Residential.

Belvidere Junction Church / Belvidere Christian Church

At Belvidere Jct., south side of Rte. 109, just west of Belvidere-Waterville town line.

In VT Historic Sites & Structures Survey

Date of Record: 1980 Year Built: 1851 Style: Greek Revival

Condition: Good

Summary of Significance: This New England church type is the most significant building in Belvidere.

Present Use: Church.

Surrounding Environment: Open land, Woodland, Scattered buildings, Residential.

Old District #2 School

On north side of Rte. 109, 0.6 miles northeast of Belvidere Junction.

In VT Historic Sites & Structures Survey

Date of Record: 1980 Year Built: 1870

Style: Late Greek Revival

Condition: Good

Present Use: Storage

Summary of Significance: This simple yet functional schoolhouse is the last remaining district school in Belvidere.

Surrounding Environment: Open land, Woodland, Scattered buildings.

Amey House / D.G. Wittemore House

On west side of Rte. 109, 0.3 miles east of Belvidere Junction.

In VT Historic Sites & Structures Survey

Date of Record: 1980 Year Built: 1860

Style: Late Greek Revival

Condition: Good

Present Use: Residence

Summary of Significance: This Greek Revival period farmhouse dates from the mid-19th century, Belvidere Junctions era of prosperity.

Surrounding Environment: Open land, Agricultural.

Adams House / Norman Cheney House

On south side of Rte. 109, 1.2 miles east of Belvidere Junction.

In VT Historic Sites & Structures Survey

Date of Record: 1980

Year Built: 1870

Style: Vernacular

Condition: Good

Present Use: Residence

Summary of Significance: This plain house illustrates the lingering effect of Greek Revival on vernacular rural Vermont architecture.

Surrounding Environment: Open land, Woodland, Scattered buildings.

Tallman's Store / ABC Store

On north side of Rte. 109, Belvidere Center.

In VT Historic Sites & Structures Survey

Date of Record: 1980

Year Built: 1900

Style: Vernacular Queen Anne

Condition: Good

Present Use: Private

Summary of Significance: It was the focal point of Belvidere Center.

Surrounding Environment: Moderately built up.

Parker House

On north side of Rte. 109, 1.5 miles east of Belvidere Center.

In VT Historic Sites & Structures Survey

Date of Record: 1980

Year Built: 1850

Style: Vernacular Greek Revival

Condition: Good

Present Use: Residence

Summary of Significance: It is surrounded by some of the last agriculturally active land in Belvidere.

Surrounding Environment: Open land, Woodland, Agricultural.

Locke House

On west side of Rte. 109, across from the former Belvidere Central School

In VT Historic Sites & Structures Survey

Date of Record: 1980

Year Built: 1860

Style: Vernacular Greek Revival

Condition: Good

Present Use: Residence

Summary of Significance: The traditional classic cottage plan is enriched by corner pilasters supporting a box cornice and gable returns.

Surrounding Environment: Open land, Woodland, Scattered buildings, Residential, Agricultural.

Old Belvidere Central School (Old District #1 School)

Just east of Belvidere Center at the junction of Route 109 and Bog Road.

Year Built: 1900

Condition: Good

Present Use: Residence

Summary of Significance: It is a contributing structure in a potential Belvidere Center Historic District, which is eligible for inclusion on the State Register of Historic Places.

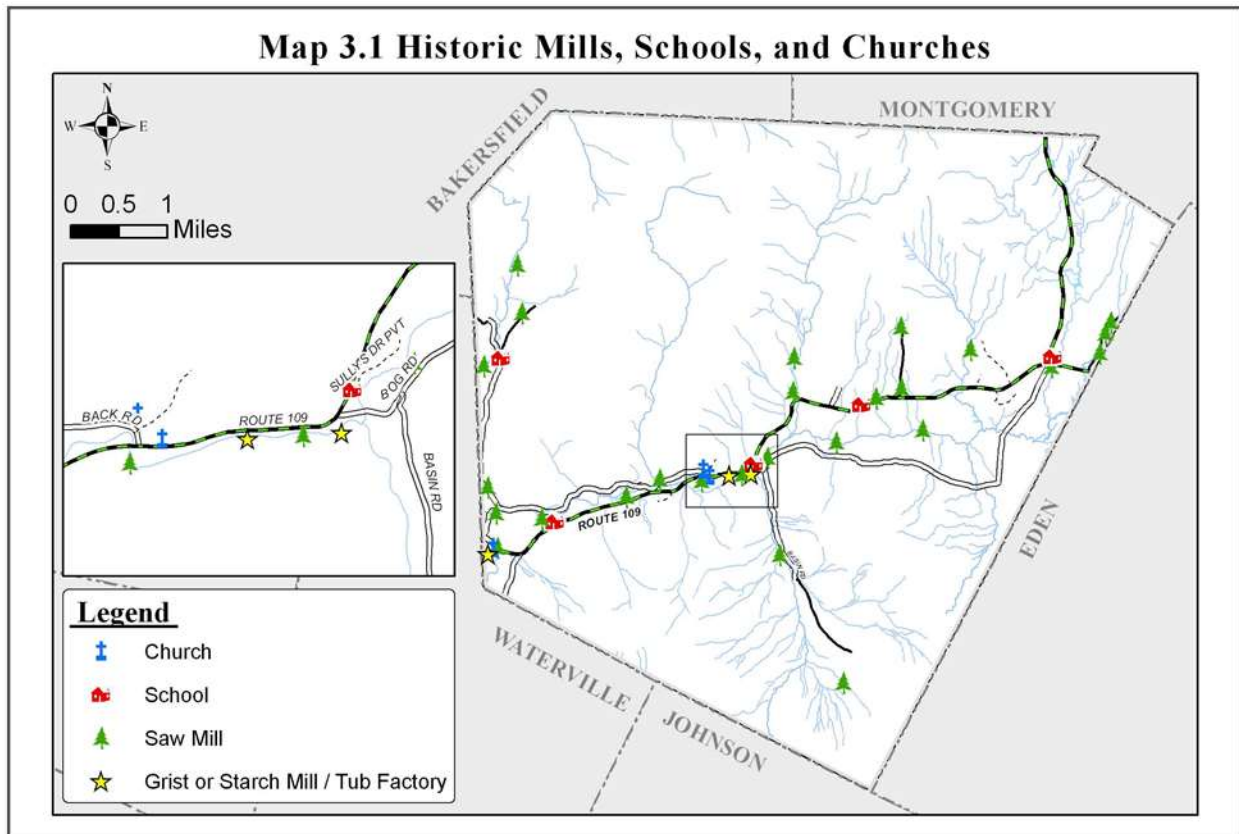
Surrounding Environment: Open land, Woodland, Agricultural.

Other Structures of Note

At one time there were 5 schools and 3 churches in town, so there are plenty of other sites or structures that merit research and exploration, such as Belvidere Community Church.

The Mills of Belvidere

As far back as Belvidere’s land records go, one will find mention of mills in the town. Historically, mills were commonplace in any Vermont town, especially those with as much forested land as Belvidere, and the residents feel a special connection to their mill history. The important economic and social roles that the mills once played in town today make the mills a captivating subject for residents of all ages in Belvidere.



In town records from 1808 to 1980, entries can be found for at least 26 wood-based mills (lumber, shingles, tubs, etc.) and 3 grist or starch mills (Map 3.1). The mills were the economic drivers of the town, supplying jobs that attracted the majority of residents during Belvidere’s peak population days, giving it a one-time status of an “exporting town.” Some of the causes for decline in Belvidere’s mill industry were destruction by fire, ravages of the 1927 flood, and the post World War I business decline.

Non-Regulatory Tools for Protecting Historic Resources

Listing on State Survey and National Register

Both the Federal and State Governments maintain registers of historic places. These registers list structures and districts that meet objective and subjective historic criteria

and whose listing was petitioned by their property owners and local residents. Typically, structures on the registers are more than 50 years old, are associated with significant local events and people, and embody the distinctive characteristics of a type, period, or method of construction.

Most structures and districts on the Vermont Historic Register are there as a result of the Historic Sites and Structures Survey, a process begun in 1971 and strengthened by the 1975 Vermont Historic Preservation Act. Most Lamoille County Survey entries are from the early 1980s.

Listing on the National Register involves the town or the property owner preparing the documentation as required by the National Park Service, which administers the Register. Towns can apply for Municipal Planning Grants for funding.

The table below elaborates on some of the details and benefits of being listed on the two registers.

Table 3.2 The National and Vermont State Historic Registers

	National Historic Register	Vermont State Survey
Administered by:	National Park Service	Vermont Division for Historic Preservation
Benefits:	Special consideration in permitting and in association with any federally funded project.	Special consideration in permitting and in association with any state funded project.
	Tax credits for rehabilitation projects.	
	Access to federal grants (when funded)	

National Historic Register: <https://www.nps.gov/subjects/nationalregister/database-research.htm>

State Register of Historic Places: <https://accd.vermont.gov/historic-preservation/identifying-resources/srhp>

Archaeological Sensitive Resources

Archaeological resources provide evidence of human habitation and culture including shelter, use of resources, villages, trails, trade networks, and burial grounds which date from prehistoric times. Historic settlement patterns can be interpreted from old foundations and cellar holes, quarry, mill, kiln and foundry sites, and unmarked cemeteries and roads.

Scenic Resources

Belvidere is a beautiful place, and our residents want to protect our scenic resources. In fact, the town's name roughly translates to "beautiful to see" in Latin. It is only logical that the town's residents take stock of the areas of scenic beauty in town. Some areas are:

- Laraway Mountain (locally referred to as "Round Mountain")
- The Mixing Bowl in Smithville
- Newton Valley Brook
- The North Branch of Lamoille River (locally referred to as "Kelly River")
- The view coming down Lackey Hill into Belvidere Center (Route 109)
- The Natural Area District containing the bog at Belvidere Corners
- The view overlooking the Bog and Belvidere Mountain from Lawrence Hill, at Belvidere Corners
- The Long Trail State Forest in Belvidere Basin

Protecting Scenic Resources

Scenic areas may be threatened when development and other activities alter the immediate area and/or the viewshed. The town has decided not to create a local Conservation Commission but reserves the right to reconsider this in the future.

Goals, Policies and Recommendations

Historic, Archaeological, and Scenic Resources Goal:

- To preserve Belvidere's heritage and beauty for current and future generations.
- To record and preserve the history of Belvidere.
- To preserve individual buildings, structures and areas of historic value, including archaeological sensitive areas.
- To conserve scenic resources and areas without excessive infringement on property owners.

Policies

This town plan supports:

- The application for grants to compile a history of Belvidere, as well as efforts to protect and preserve historic artifacts significant to Belvidere.
- The rehabilitation, reuse and preservation of historic buildings.
- Identification and protection of sites of potential archaeological sensitivity.

- Carefully siting telecommunications towers and other large obvious structures to avoid excessive impacts on scenic resources.
- Development around scenic resources that is sited and constructed to retain the beauty of the area. Removal of natural vegetation on the site should be minimized, and structures should be screened or hidden from view as best as possible.
- Development that avoid ridgelines, especially those visible from roadways. Any ridgeline development should be set back from the edge of the hill with a forested buffer remaining to protect the view from the valley.

Recommendations

- The Town of Belvidere should support the creation of a local Historical Society.
- Maintain a comprehensive listing of historical structures and sites in Belvidere.
- The Planning Commission should review all Act 250 applications for their impact on the historic and scenic resources in town, and ensure that the concerns of the Town are addressed.

CHAPTER 4: NATURAL RESOURCES

Belvidere is a unique town because of its largely untrammled land and water resources that include unique geologic formations, varied gravel and soil types, multiple water forms, expansive forests, and then, throughout the natural habitats, diverse plants and animals including endangered and rare species. This chapter seeks to describe the natural resources, their effective protection, and their use for commerce and recreation with the health and safety of residents as a primary consideration.

The North Branch and other water resources are very clean and provide recreational opportunities to residents and visitors including fishing, swimming and kayaking. It is far easier to maintain Belvidere's water than to clean it up if polluted. The residents of town have inherited clean water and they need to ensure future generations receive the same valuable resource.

Overwhelmingly forested, the town is home to bears, moose, deer, fishers, and many other species of wildlife. These provide recreational opportunities to residents and visitors through hunting or by simply viewing from the windows of our homes. Belvidere Bog is a natural treasure containing many rare and endangered species.

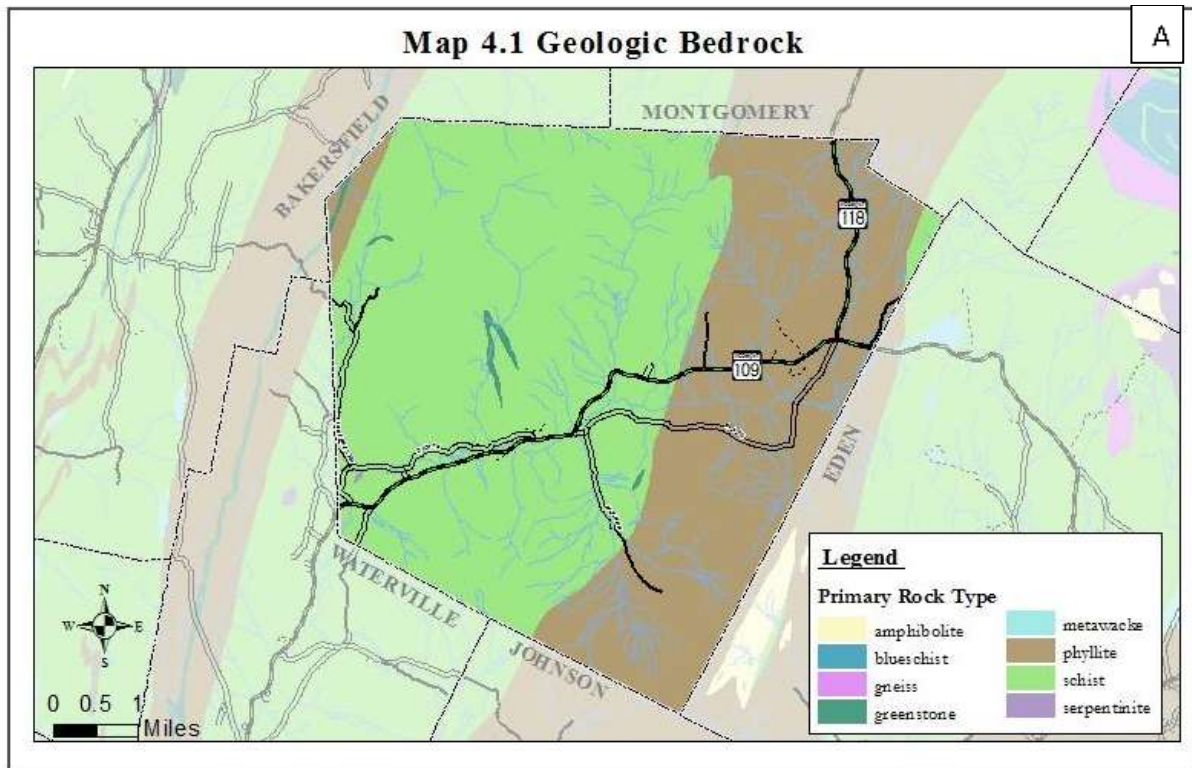
Because the inhabitants of Belvidere have left a legacy of good land stewardship, today Belvidere has a clean and healthy environment in which to work, live, and play. These same traditions continue today as Belvidere enters the twenty first century with sustainable forest management, hunting, and fishing. Continuing to be good stewards of our environment will allow us to pass along these resources to future generations.

Land Resources

Land or earth resources are generally discussed in three topics-the geology, the topography, and the soils. Each of these features provides opportunities and constraints to current and future use of the land.

Geology

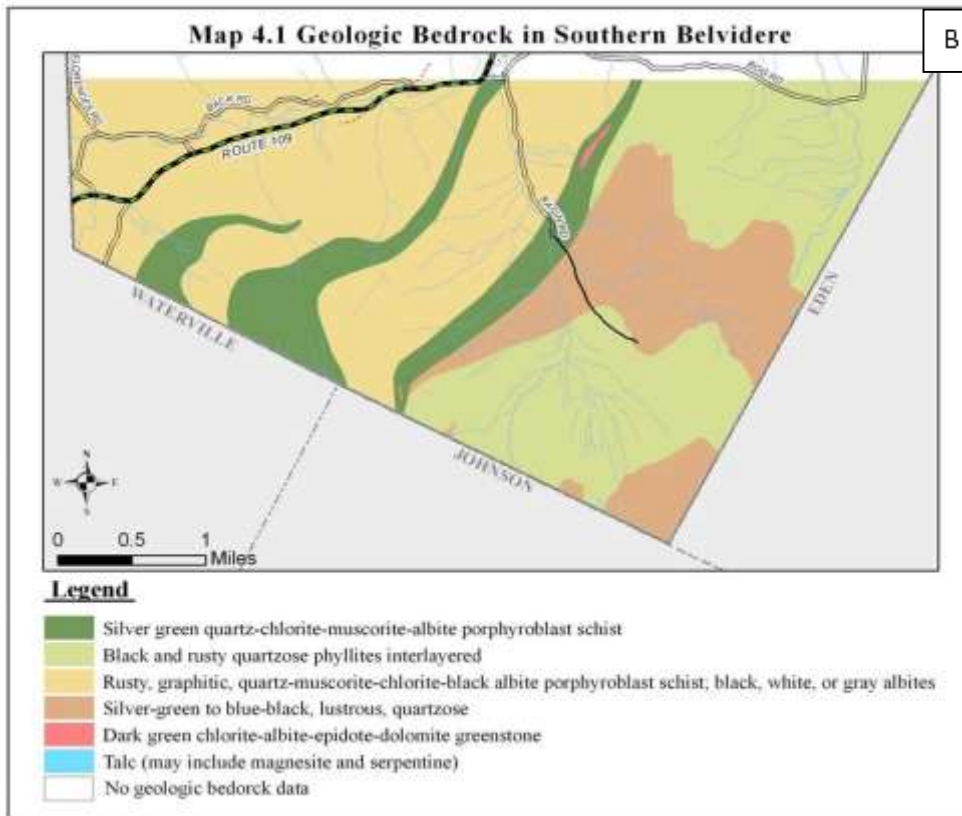
Following the last glaciation some 14,000 years ago all that remained in the area between the Cold Hollow Mountains and Laraway Mountain was bedrock and the glacial deposits of sand, gravel, and till. This base material was critical in determining the types of soil that developed later over these areas. Although soil has developed over the geologic materials, the combined effects of the bedrock geology and the surficial geology have an important effect in determining the plant communities, water availability, and mineral resources that exist in Belvidere.



Bedrock

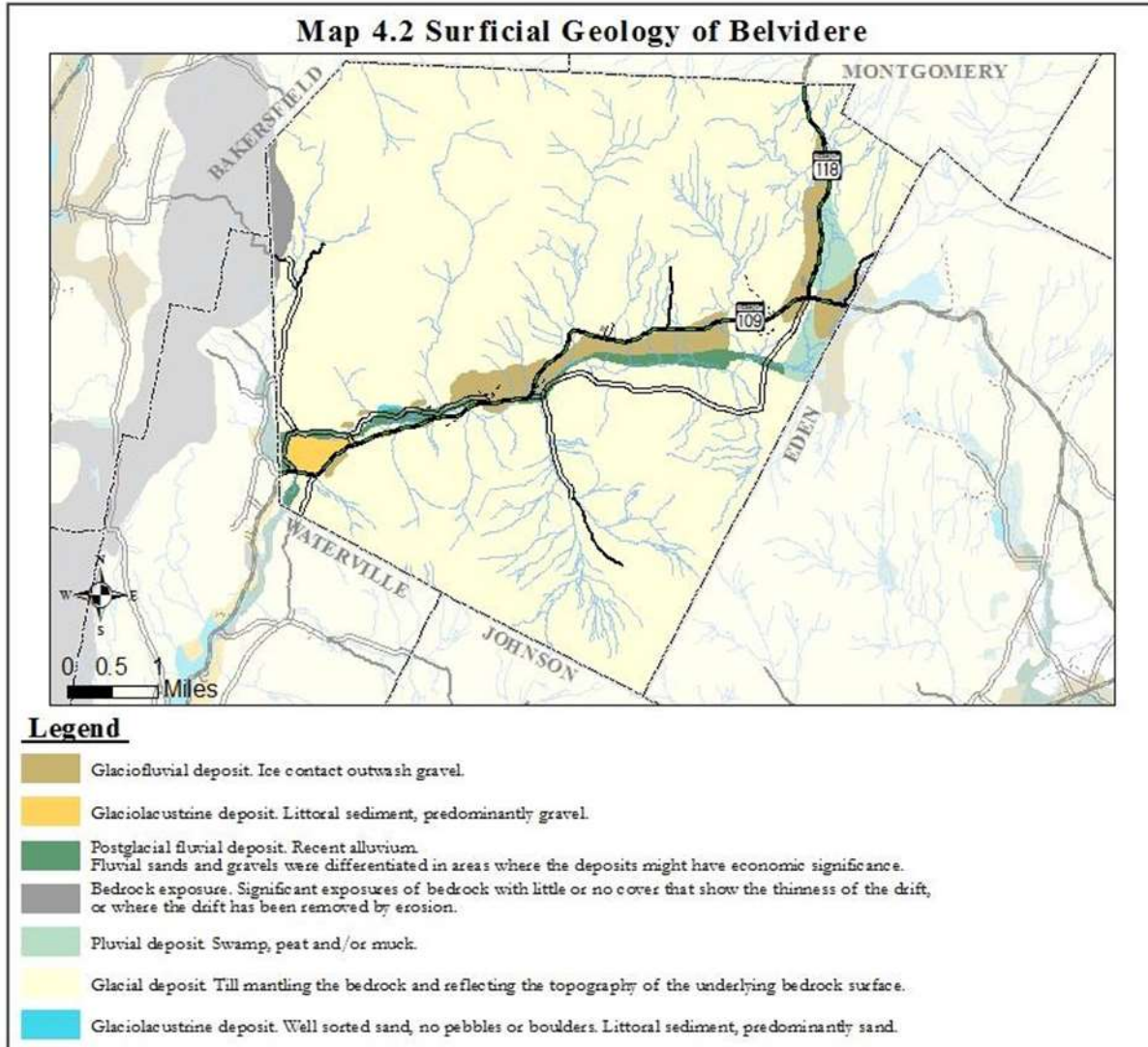
Belvidere's bedrock is defined as "interbedded, pale silver-gray to green, carbonaceous and non-carbonaceous schists" except for a small portion of town east of Route 118 as it enters Montgomery, which is defined as "interbedded phyllites, schists, and quartzites" (Geology for Environmental Planning in the Johnson-Hardwick Region, Vermont 1974). This type of bedrock is not associated with quarry stone and minerals. Bedrock geology data for Belvidere can be seen in Map 4.1A. Detailed bedrock geology data was released in 1998 for the southern part of Belvidere, which can be seen in Map 4.1B.

One of Vermont's many trademark products known around the world are our marble and granite deposits. Belvidere's bedrock is such that quarry stones like these are not found. Talc is a soft pale green mineral found in parts of Lamoille County associated with ancient ocean crusts (known as serpentized ultramafic rocks). These formations tend to be on the east facing slopes of the Green Mountains such as the Johnson Talc sites in Johnson and the GAF asbestos mine in Eden/ Lowell. This bedrock type is present only in very limited locations including, small deposits near the Eden town line. Minerals, therefore, may be present at the higher elevations in this area. While mineral rights have been purchased in places in town, based on the geologic evidence it is unlikely large outcrops of talc or other minerals will be present.



Surface Materials

While Belvidere is unlikely to possess bedrock resources, it does contain resources associated with glacial deposits. Belvidere has seven types of surface materials present (see Map 4.2). A thin layer of glacial till covers the bedrock in the upland regions. Much of the bedrock is exposed and the materials unsorted, poorly drained and bouldery. Moving closer to the valleys are ice contact gravel, which are mostly kame terraces. The materials are well sorted, may have high sand content and are a good gravel source. Lacustrine sands and gravels are found along the North Branch on the steep slopes north and east of Belvidere Junction. Predominantly sand and pebbly sand, these areas are good sources for sand. Not coincidentally, the Tatro pit and the Town of Belvidere gravel pit are found in these deposits. Peat and muck are associated with swampy, poorly drained areas such as Belvidere Bog and the surroundings. Recent stream alluvium deposits are located in association with the North Branch of the Lamoille River. They are generally poorly drained. The final surficial materials found in Belvidere are some lacustrine clays and silts located in a very small area beneath Belvidere Junction and west to the Waterville town line.



As resources, the ice contact gravel and lacustrine sands and gravels are both surface materials containing sand and gravel suitable for extraction. As sand and gravel are created from glacial outwash, they are essentially, non-renewable resources. Sand and gravel are important resources due to their use in the construction of roads and other projects. Areas likely to be gravel rich should be identified and noted.

Use of Earth Resources

Earth resources, including stone, minerals, and sand and gravel deposits, are valuable natural resources, particularly for their use in construction related activities and road maintenance. However, it is important to recognize that these resources are finite and that the geologic processes that create them can take tens of thousands of years to occur. While any construction over an earth resource should account for the potential loss of

that resource, their use must be carefully balanced with the consequences of their extraction, and even then should be used only when high public benefit is in evidence.

Extraction of earth resources has potential for negative consequences in any of the following areas, which need to be accounted for:

- Noise, dust and air pollution or radiation;
- Surface and groundwater pollution, siltation or radiation;
- Storage and disposal of waste materials, both solid and liquid;
- Increased storm-water runoff, erosion and sedimentation;
- Spoiling of the landscape and limited utility for subsequent uses of the site;
- Decreased highway safety and increased municipal costs due to increased traffic and accelerated deterioration of highways and bridges attributed to the transportation activities generated by the earth resource operations;
- Reduced property values because of primary or secondary impacts of the proposed earth resource operations.

The Lamoille County Planning Commission completed a study in 1989 that identified existing gravel pits and areas of likely gravel deposits (identified on Map 4.3 Sand and Gravel Resources). In 2002 and 2009, the Belvidere Planning Commission revisited these findings to plan for future use of the gravel resources. The gravel pits located on Map 4.3 Sand and Gravel Resources are based on the findings of this review. As indicated on the map, there are 22 active or inactive gravel pits identified in Belvidere. A majority of these are inactive and some have been reclaimed. Table 4.1 identifies the owner of the site, its current status, and any other general comments on quantity or quality of materials. Active pits may be Commercial, Municipal, or for Personal use. Inactive sites are either Reclaimed or Not Reclaimed. Site tests would be required to determine the quantity and quality of any sand or gravel but generalizations can be made based on Map 4.3 (Sand and Gravel Resources) and table 4.1.

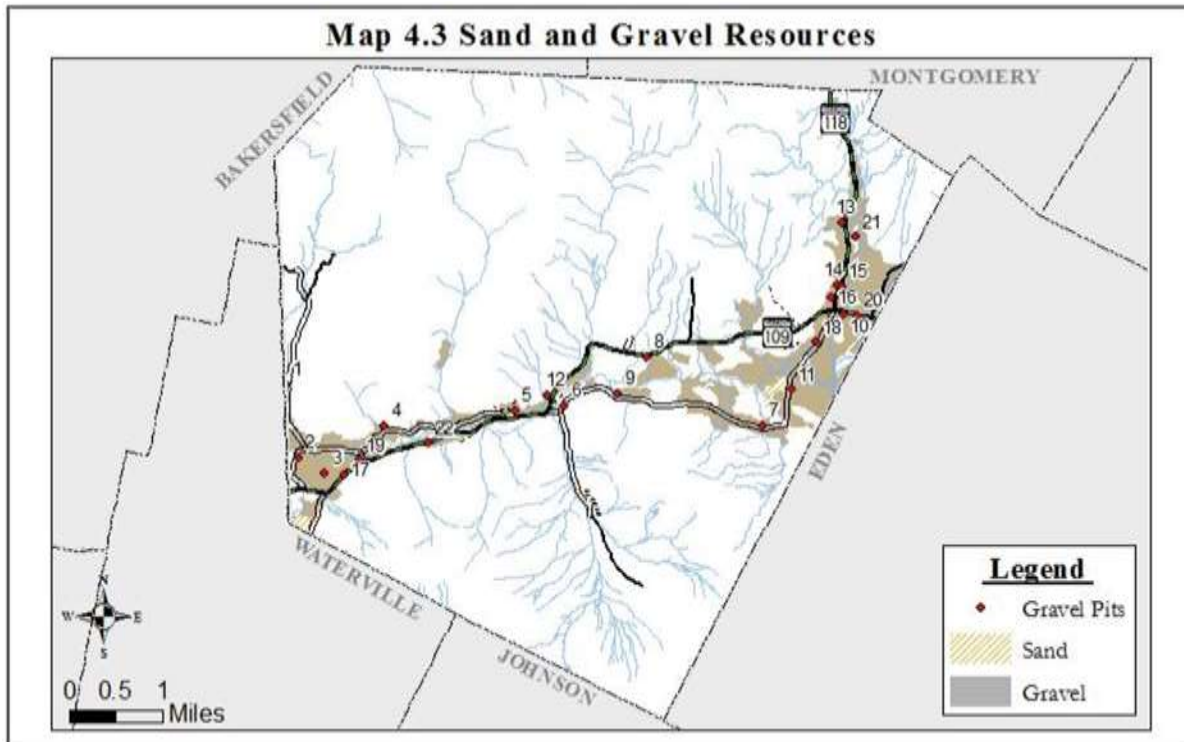
The town’s gravel pit (at the old dump) is estimated to have twenty years of material remaining at current extraction rates. The town is therefore looking to secure a long-term supply in town through purchase of another site. Based on the expected areas of gravel deposits and locations of existing or inactive sites, it is recommended that the Selectboard investigate some other sites along Route 109 north of Belvidere Center or adjacent to the current pit.

Table 4.1 Belvidere Gravel Sites –			
Site #	Name of site	Status	General comments
1	Town of Waterville	Active- Municipal	

2	G.W. Tatro	Active- Commercial	Act 250 permit
3	Town of Belvidere	Active- Municipal	Twenty year supply
4	Winnie Lanpher	Inactive- Reclaimed	
5	Edsel Rich	Inactive- Reclaimed	Some personal use
6	Brian Loucks	Inactive- Reclaimed	
7	Warren	Inactive- Not reclaimed	Some personal use
8	Schroeder, Lague, J+H Bowdy	Active- Personal	
9	Mark Schroder	Inactive	
10	James + Debbie Baker	Inactive- Reclaimed	
11	State of Vermont	Inactive- Reclaimed	
12	Steve Locke	Inactive	
13	Bob Tanner	Active- Commercial	Grand fathered
14	Brown farm	Inactive- Reclaimed	
15	Brown farm	Inactive- Reclaimed	
16	Brown farm	Inactive- Reclaimed	
17	Laraway Mountain Ltd.	Inactive- Not reclaimed	Some personal use
18	Kneen	Active- Personal	
19	Meyers	Active- Personal	
20	Airstrip pit (State)	Inactive- Reclaimed	
21	Art St. Onge	Active- Personal	
22	Laraway Mountain Ltd.	Inactive- Not reclaimed	Some personal use
Source: Personal communication with residents and owners			

Permitting

For all the reasons mentioned above, gravel extraction operations are highly regulated by the state in the Act 250 process. Unless in continuous operation since June 1970, any earth extraction operation on a lot greater than 1 acre must receive a state Act 250 permit [check with the District 5 Environmental Commission for exceptions and details]. The Environmental Commission is responsible for ensuring all operations will not have an undue harmful impact on the environment or surrounding lands and that a plan for site rehabilitation exists that ensures the land will be returned to a useable state. Currently the only permitted gravel extraction operation is the G. W. Tatro pit off of the Back Road near Belvidere Junction.



Municipal gravel pits only need permits if the area of disturbance is greater than 10 acres. If the municipality wishes to sell gravel, then they will need a permit the same as other commercial operations. Currently the Town of Waterville has an active pit and the Town of Belvidere has a pit less than 10 acres in size (see #1 and #3 on Map 4.3 Sand and Gravel Resources for locations). The Belvidere Pit is on a 19-acre lot but the area of disturbance is less than 10 acres and therefore qualifies for the Act 250 municipal exemption. Although exempt from Act 250 oversight, both Belvidere and Waterville should have a plan for their sites that address environmental impacts as well as future restoration.

While choosing not to regulate gravel operations locally, the town should review any Act 250 proposals in light of the discussion above. During an Act 250 project, the town may choose to comment at the Environmental Board hearing if either a non-extraction proposal (residential subdivision for instance) will prevent the future use of an important earth resource or the project is an extraction proposal so as to ensure the responsible extraction and reclamation of the site. Contact the District 5 Environmental Commission with any Act 250 application questions.

Geologic Hazards and Limitations

There are two geological hazards that exist in the state of Vermont –earthquakes and landslides. Lamoille County has experienced both of these in recent years, although Belvidere does not appear to have areas at risk of these hazards. Failure of the land along

the hillside behind Jeffersonville in 1999 resulted in the loss of a home as well as significant cleanup. An earthquake centered in northern New York shook homes all across Vermont in 2002 but no damage occurred in Belvidere. General construction conditions were determined for Belvidere based on surface geology according to their general suitability for foundations and structural loads. Not surprisingly, areas in wetlands and the floodplain were found to be unsuitable for foundations due to drainage issues. The Surficial Geology Map (Map 4.2) for Belvidere identifies bedrock outcrops, which will also present development limitations especially with respect to foundations and septic suitability.

Topography

The Town of Belvidere lies in the biophysical region known as the northern Green Mountains, with elevations ranging between 680 and 3,260 feet. Topographic information is important in planning for different types of land use, transportation routes, and the location of public facilities and infrastructure because topography provides natural barriers to movement and often influences the accessibility and use of land.

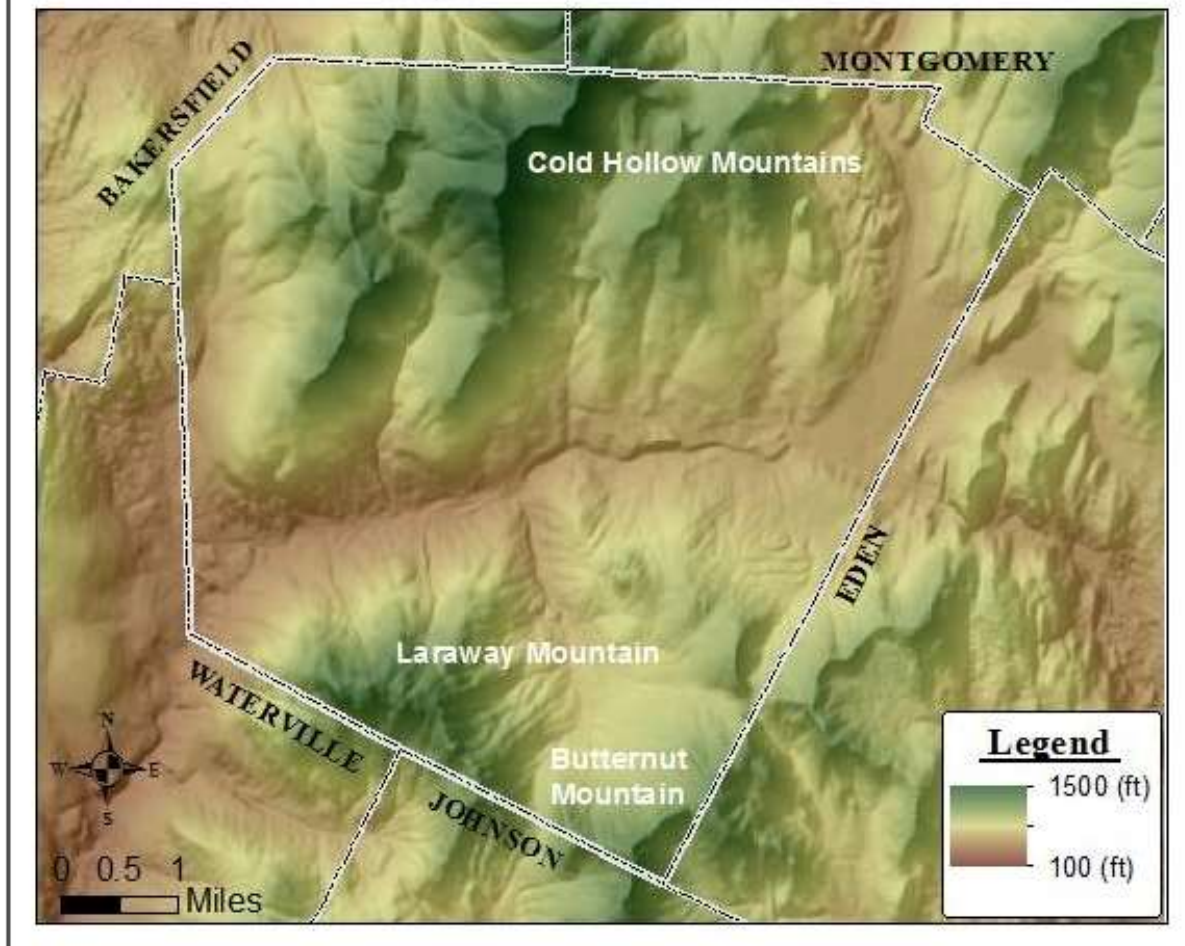
Lands Over 2,500 Feet

The hills and mountains of Belvidere provide a beautiful backdrop to the town. The factors that combine to make this effect also present limitations to development. For decades, Vermont has set a boundary statewide regarding development at 2,500-foot elevation. These areas typically are slower to recover from disturbance and are at greater risk to erosion. All development, including forestry operations, requires an Act 250 permit for projects over 2,500 feet. Two summits in the Cold Hollow Mountains as well as the summits of Laraway Mountain and Butternut Mountain are over 2,500 feet (see Map 4.4 Shaded Relief and Map 4.6 Topographic Limitations).

Steep Slopes

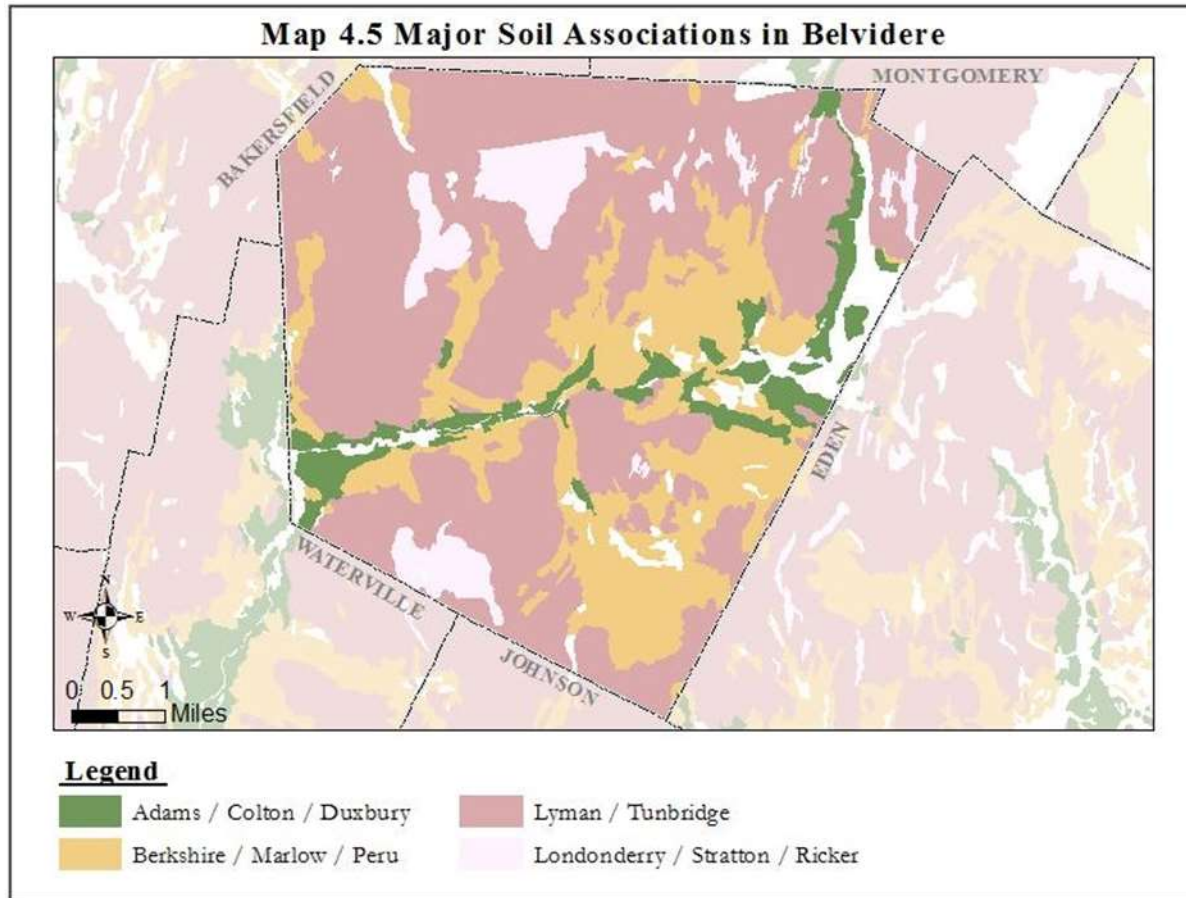
A second factor presenting considerable limitations to development is steep slopes. "Steep slopes" are defined as land having a slope greater than 30% grade over a distance of at least 50 feet. Some soil types, particularly clay, are unstable even at slopes as shallow as 5-8%. Based on Belvidere's soil types this is not expected to be an issue. The sand, gravel, and bouldery soils found in town are typically stable to 30% provided they have some vegetation cover (i.e. grass or trees). Sandy slopes can remain stable up to 50% if left undisturbed.

Map 4.4 Shaded Relief



Steep slopes present problems when they are cleared for development or timber extraction as soil erosion is increased when vegetation is removed. Belvidere has many areas that are considered to have steep slopes. These areas are identified on Map 4.6 Topographic Limitations. Belvidere also has many 'extremely steep slopes', which are identified on the map as being over 30% slopes. These areas are generally associated with mountainsides, higher elevations and shallow soils, conditions which compound the risk. These areas should be set aside, whether through purchase of the property or purchase of development rights, to protect the soil resources and water quality.

Unlike land over 2,500 feet, development on steep slopes is not regulated automatically by the state. Regulation of steep slopes is generally a local responsibility (regulated through zoning bylaws). The town will need to monitor development to decide if regulations will be required to prevent irresponsible practices.



Soil Types

The soil structure attributes in Belvidere provide both opportunities and limitations to construction and agriculture. Depending on the physical and natural processes that formed the soils, they may have differing depth, composition, texture and layering. Soils also vary in how easily they absorb water and, in their load-bearing capacity. Soils that pose limits to development are often characterized by excessive slope, shallow depth to bedrock, high seasonal water, instability or high erosion potential. Soils also have qualities that make them productive for timber and agricultural products. The four main soil associations found in Belvidere are shown in Map 4.5 and outlined below.

Adams/Colton/Duxbury

This soil type can be level to steep and is characterized by excessively to well-drained sandy soils. They formed on the old deltas, terraces, and beaches and are therefore associated with the main sources of sand and gravel in town. Steeper areas are usually woodland while less steep areas are used for crops and home sites. These soils are found along the North Branch except in the Belvidere Center area.

Lyman/Tunbridge

This soil association can be moderately deep in the level areas to shallow on steeper regions. The soil is described as being well drained to somewhat excessively drained loamy soil. It can be used for farming on the lower slopes but development is limited by depth to bedrock on slopes. It is found on the steeper hills and mountains around Belvidere.

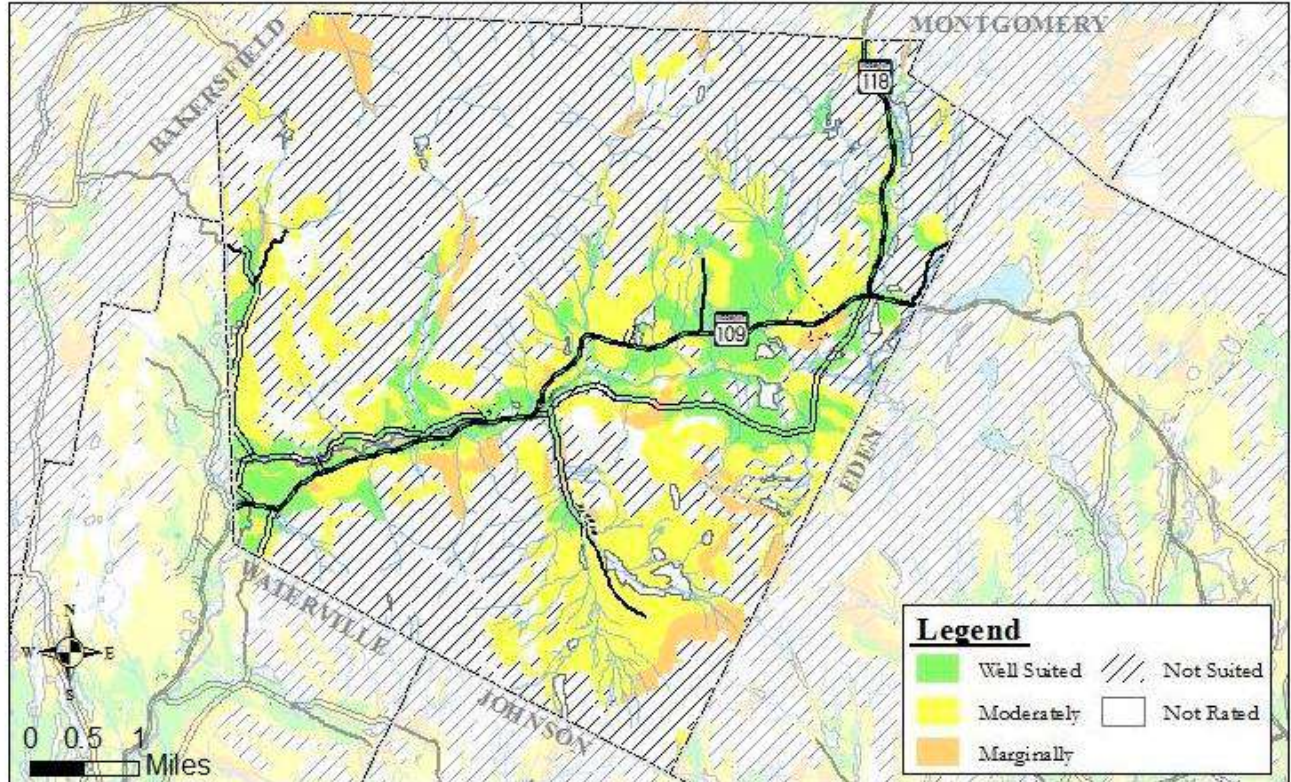
Berkshire/Marlow/Peru

This soil association is, again, deep in level areas and shallow on steeper slopes. This soil is also described as being well drained to somewhat poorly drained loamy soil. It can be used for cropping and trees but the pan and slope limits development. It is also suitable for wildlife habitat, recreation and woodland. These soils can be found at the base of the mountain ranges to the south of Route 109 and throughout the center of town, extending into Belvidere Basin and along Route 109 from Belvidere Center to Belvidere Junction.

Londonderry/ Stratton/ Ricker

These soils are shallow to very shallow, sloping to steep, well-drained, loamy and organic soils. In Belvidere these soils are found only on the highest areas of Cold Hollow Mountain. As these soils are very shallow (around 9 inches to bedrock), very erodible, and generally found on steep slopes, they can only be used for wildlife habitat. Logging operations will generally result in severe erosion.

Map 4.7 Onsite Septic Suitability



Soil Opportunities and Limitations

Development limitations are shown on Map 4.6 (Topographic Limitations). This map highlights areas with steep slopes (20%-30% slopes, 30%-45% slopes, and >45% slopes), floodplains, and areas over 2,500-foot elevation. This map is not intended to imply that development is not possible on a site in these highlighted areas. It should be interpreted that development in these areas may need special construction, careful siting, or be of a limited extent or scale. Each property should be examined individually for limitations based on the characteristics above.

Soils may also present opportunities due to their characteristics. Soils that have characteristics particularly suitable for accommodating on-site septic systems are shown in Map 4.7. Development is generally suited to these areas; however, these soils may also have value as agricultural and forestry soils. Primary agricultural and forestry soils are shown on Map 4.8 Soil Resources. These are the valuable and non-renewable soil resources that need to be protected for use in agriculture and forestry.

Use and Conservation of Soil Resources

Soil provides the medium and nutrients for growth, and crops grow best where these conditions are ideal. Prime and statewide significant soils have been classified based on these and other criteria. Whether the crop is hay, corn, or trees, the best use for that soil resource is agriculture or forestry. As a limited resource, management and conservation are the keys to long-term sustainability. Agriculture and forestry as a land use will be discussed again in the land use chapter of this plan.

An examination of the location of the managed forestlands with respect to the location of prime forest soil resources is important to keeping the best soils in forestry and not development. Similarly, parcel and soils data can be studied to determine if agricultural soils are located on large blocks of land that are being (or could be) farmed.

Required Agricultural Practices (RAPs) are designed to ensure soil conservation and all farms are required to meet these standards. The Planning Commission would recommend that farmers use Best Management Practices (BMPs) where technically and economically feasible. BMPs are not required but they offer better protection of the soil resource and will protect water quality as well. Where a farmer would like assistance to achieve some or all of the BMPs, the Planning Commission will be available to assist them by contacting other appropriate regional and state organizations.

Foresters have a similar set of practices to follow in order to conserve soil resources. Accepted Management Practices (AMPs) are the required methods and practices established to protect soil and water. Similarly, forestry has a voluntary set of BMPs for construction on forestry sites. Again, any foresters interested in obtaining more information or assistance in establishing BMPs at their sites should contact the Planning Commission for assistance.

Soil Resource Protection

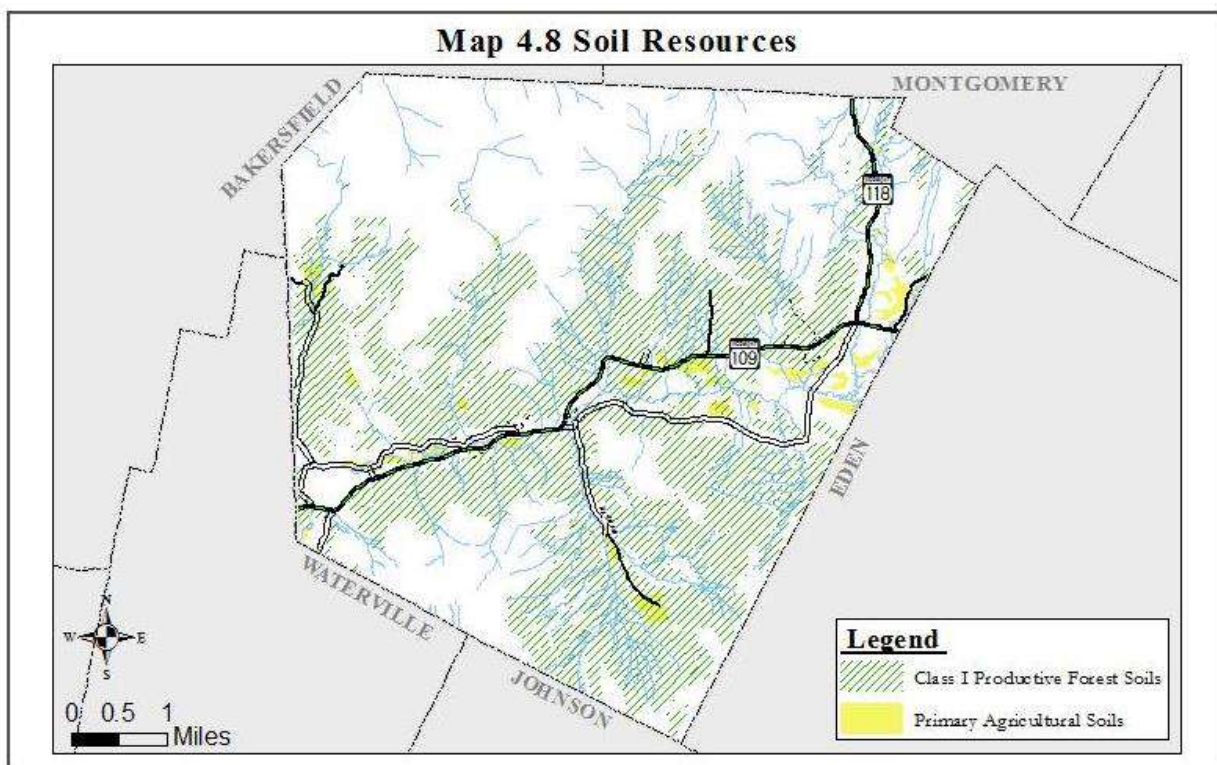
Prime agricultural and forest soils need to be protected from development. Subdivision of land and development of residential properties prevents efficient management of the working landscape. The best way to protect land resources from development is to ensure the working landscape is economically feasible and provides the landowner with a stable income. There are three tools that help make agriculture and forestry more economically feasible - Current Use Assessment, Purchase of Development Rights, and land use regulations.

Use Value Assessment (UVA) Program

The current use or UVA Program has grown to be quite popular among Belvidere property owners. UVA may be used for either agricultural or forest land but, in the case of Belvidere, a majority of the properties are forested.

Purchase of Development Rights

The most well-known group involved in the purchase of development rights is the Vermont Land Trust. In a purchase of development rights, the right to develop or subdivide a parcel is bought by another party. The amount paid depends on the value of the potential development. The farmer or forester receives compensation for their loss of development value, while retaining the farm or forest. In addition, the property is appraised at a lower value, resulting in lower property taxes. The challenge with purchase of development rights is the raising the funds to cover the cost of development rights. Also, the landowner must want to sell the rights - all purchases are willing buyer/willing seller.



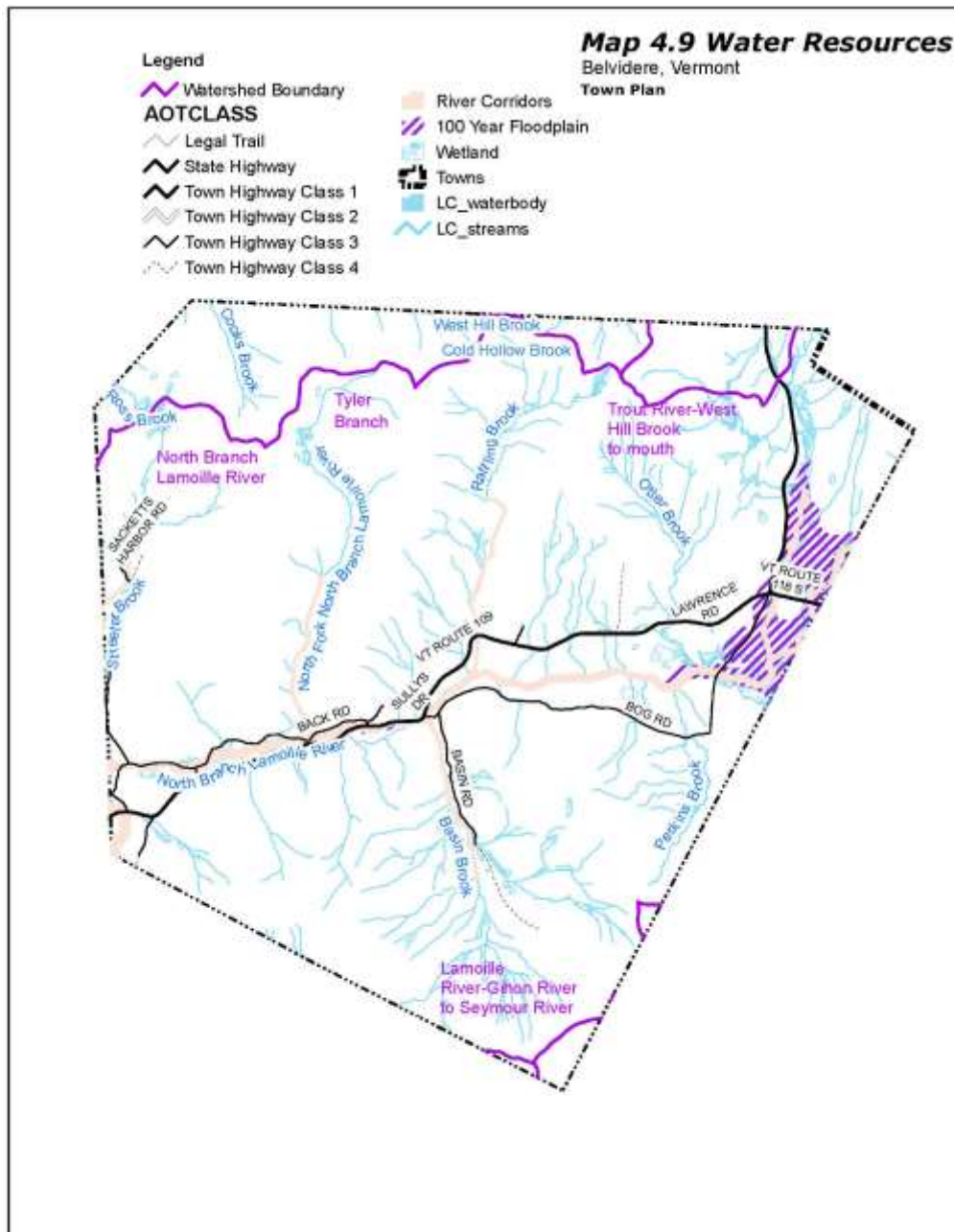
Belvidere may want to consider forming a conservation commission to purchase development rights on their own. The town would own the development rights instead of a non-profit organization. The money to purchase properties or development rights can come from grants and funding institutions around the state.

Land Use Regulations

Zoning and subdivision regulations are less effective in regulating development of important land resource parcels, but are also far less expensive. These types of regulations can guide development to ensure certain goals are accomplished. One valuable tool is Planned Residential Developments where developable lots are clustered to protect open space or other objectives. This type of flexible zoning tool allows the same number of developable lots as traditional subdivisions except that it also keeps the fields open and forests unfragmented.

Water Resources

From rivers and streams upon which to boat, fish and swim; groundwater to drink; and wetlands to store floodwaters, Belvidere has abundant, pristine water resources. The town's waters offer sustenance, scenic beauty, ecological values, and recreational opportunities and are important to the social, economic and cultural character of the community.



Rivers and Streams

Belvidere’s numerous brooks, streams and rivers have helped shape the local landscape and the historic mill economy on the North Branch. The North Branch of the Lamoille River flows from east to west across the center of Belvidere. The North Branch is part of the Lamoille River Basin, originating in Eden and flowing into the Lamoille River at Cambridge. Except for a few high elevation locations, most of the streams in Belvidere drain into the North Branch as part of the Lamoille River Basin (see watershed lines on Map 4.9 Water Resources). Some streams on the northern slopes of the Cold Hollow Mountains drain north into West Hill Brook, Cold Hollow Brook, Cooks Brook, and Ross

Brook-eventually making their way to the Missisquoi River. The South Branch of the Trout River begins in Belvidere before exiting into Montgomery along Route 118 and entering the Missisquoi in Berkshire. The South Branch (Missisquoi Basin) drains some of the wetlands in the Belvidere Corners area especially during periods of high water. The largest brooks in Belvidere are the Streeter Brook, North Fork, Rattling Brook, Otter Brook, and Calavale Brook from the north; and the Basin Brook from the south.

Stream Banks

Vegetation along stream banks, or riparian habitat, not only shades the water, keeping it cooler and thus more tolerable for certain species of fish, but also provides cover for other wildlife, is aesthetically desirable, and prevents stream bank erosion.

According to the Vermont Agency of Natural Resources, River Management Section, several of Vermont's wildlife groups are highly dependent on riparian areas for their habitat needs. In addition, removal of riparian vegetation for development or conversion to agricultural uses is detrimental to water quality because of increased erosion risk and the elimination of filtration functions provided by the buffer. Erosion results in decreased water quality from additional suspended sediments, increased nutrient loading from overland runoff and increased risk of flooding due to losses in flood storage capacity and increased velocity, and its effects are often more severe downstream than at the point of erosion itself.

Belvidere supports the maintenance or construction of vegetative buffers in riparian areas. The short-term drawbacks of lost tillable land acreage are more than offset by the bank stabilization power of buffers, which result in long term conservation of important agricultural resources. Road construction projects should avoid riparian areas, and filling, dredging or gravel extraction in or near rivers and streams should be avoided.

River Attractions in Belvidere

Kelly River Falls

Kelly River Falls is a small set of cascades adjacent to Belvidere Junction just north of Route 109. The Waterfalls, Cascades and Gorges of Vermont survey conducted in 1987 and later the Waterfalls, Cascades and Gorges of Lamoille County in 1991 identify this area as having local importance. While there have been no updated surveys, the status of the Falls has not changed. The falls are a popular place for fishing and swimming. The shores are privately owned and the owners do not have them posted. The landowners maintain the area keeping it clean and discouraging noisy and messy users.

Whitewater Boating

The North Branch of the Lamoille River is a challenging and noteworthy stretch of whitewater enjoyed by many kayakers and canoers. Boaters put in below Long Pond in Belvidere Corners at the Route 118 bridge and go through a Class III or IV gorge, travel a 6-mile stretch of Class II whitewater and then are challenged by another stretch of Class III/IV water upstream from Waterville. It is described as having “excellent to outstanding” scenery and as “pristine” (Draft Lamoille River Basin Water Quality Management Plan, 2008).

Fishing

Fly fishing for trout is a popular activity in rural Vermont for locals and tourists. The number of rivers with good habitat for wild trout is decreasing, and many rivers are either stocked or no longer have trout. According to the Draft Lamoille River Basin Water Quality Management Plan (2008), “much of the North Branch is a moderate to high gradient stream with populations of wild brook, brown, and rainbow trout...with the upper North Branch and its many high-gradient forested tributaries in Belvidere dominated by wild brook trout.”

Lakes and Ponds

Belvidere has no lakes and only a few small ponds in town. The only named pond is Lost Pond, which can be found at the headwaters of Rattling Brook. Off in the woods and near the top of a hill, the appropriately named pond is far from any roads. Although not officially named, McGookin Pond off Route 118 is of similar size and is also in a very isolated spot.

Wetlands

The term wetland is used to refer to areas that are inundated with water either seasonally or year-round. They are commonly referred to as swamps, marshes, bogs, fens or other such names. Wetlands share three basic characteristics:

- The presence of water at or near the ground surface,
- The presence of water dependent plants occurring on site, and
- Common types of soil that have formed as a result of the presence of water.

Wetlands serve a number of important functions, including storm water retention, erosion control, ground water recharge, and wildlife habitat. The U.S. Department of the Interior has mapped wetlands and each town has a set of National Wetlands Inventory Maps. These maps were made using aerial photos. They are useful for assessing the general character of a particular area, but are not accurate enough to determine the nature of a particular property without a site visit.

Vermont's wetland regulations are based on the Vermont Significant Wetlands Inventory (VSWI) (Map 4.10). The VSWI designates all of the wetlands identified by the national inventory in Belvidere as Class II, which require a 50-foot vegetated buffer between the wetland and any adjacent land development. If any area is determined to be of importance, the town may request Class I designation and will receive a 100 foot buffer protection.

Belvidere Bog is one of two bogs singled out as significant by the Draft Lamoille River Basin Water Quality Management Plan (2008) for the Northern Green Mountain Region. The Belvidere Bog wetland complex is located at the headwaters of the North Branch and is approximately 375 acres. A number of wetland types are present in this complex including shrub swamp, cedar swamp, shallow marsh, mixed shrub swamps, deep marsh, a rare dwarf-shrub bog community and numerous beaver ponds. The wetland complex is highly significant for its size, diversity and function in the watershed. The Belvidere Bog wetland complex has been rated highly significant for cold-water fishery habitat, water quality protection, erosion control, education, recreation, and wildlife habitat. The wetland complex is considered habitat for the state's endangered common loon (*Gavia immer*), the endangered Southern Twayblade orchid (*Listeria australis*), and also was rated as a high-quality northern level bog. The size of the wetland complex and the undisturbed area surrounding the complex makes this area suitable for wildlife species that need large ranges such as black bear, bobcat and moose.

According to the Draft Lamoille River Basin Water Quality Management Plan (2008), Belvidere Bog could be at risk of being impacted by runoff from agricultural, silvicultural, and residential development runoff. To protect Belvidere Bog from these impacts, the Town can encourage purchase by the Agency of Natural Resources of the bog and surrounding buffer area. Currently only a portion of the wetland complex is owned publicly. The second set of protection methods is to petition the state to have Belvidere Bog declared a Class I Wetland and request its inclusion on the Fragile Areas Registry. The Belvidere Planning Commission considered this option in 2018 and following extensive research and community input recommended that the town not pursue an upgrade in classification.

Flood Resiliency

Based on the results of local community interviews, a Hazard Questionnaire conducted during the development of the 2017 Local Hazard Mitigation Plan, the history of disasters in Town, and the Belvidere Hazard Identification /Risk assessment (HI/RA), the following hazards were identified as significant threats to the community.

- Flooding, Fluvial Erosion and Ice Jams
- Severe Windstorms (Thunderstorms, Tropical Storms, Hurricanes)

Based on the Belvidere HI/RA, the community vulnerability to a flood is high based on the frequent possibility of an incident with the potential for catastrophic impact.

Fourteen vulnerable structures are located in the 100-year floodplain. The estimated loss for damage to these properties based on a median house value (2005-2009 American Community Survey) is over 2 million dollars.

Flood Hazard Areas

Floodplains

Floodplains are land areas adjacent to water bodies, primarily rivers, which are subject to seasonal or periodic flooding. These areas store runoff during heavy rains and spring thaws, thus slowing the velocity of water flowing downstream. Floodplains are considered unsuitable for development for several reasons: potential danger to life and property, loss of flood water storage, effects on channel capacity and downstream communities, and improper functioning of subsurface sewage disposal systems when there are high water tables. Construction of impervious surfaces, such as driveways and homes, hamper the ability of floodplains to absorb water, and to assimilate nutrients from residential and agricultural runoff. More suitable uses, such as recreation and agriculture, will ensure a higher level of riverine health, and will prevent property and environmental damages associated with flooding.

The Floodplain map below (Map 4.10) identifies the areas of Town that are within the 100-year floodplain. Generally these include lands adjacent to Route 118 and 109 in the northeast area of Town and lands along the North Branch of the Lamoille River parallel to Route 109 and the Town center. The Town of Belvidere is unique in that the transportation infrastructure leading into and out of the Town is essential in disaster and emergency response.

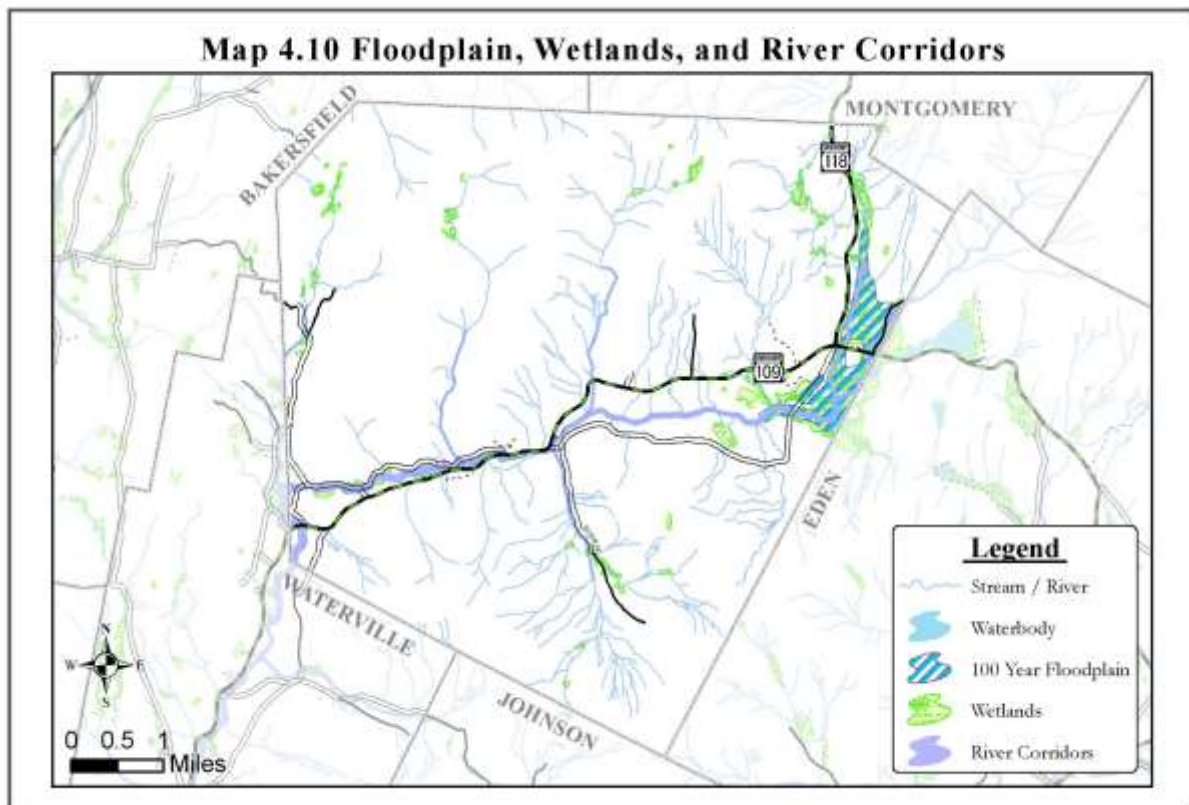
The limited points of ingress and egress were affected during significant storms of the last 25 years. During the 1995 flood, the Town was essentially an island as all routes into Belvidere were under water. Route 109 flooded in Waterville as did the Hogback Road from Johnson. The only other route into Belvidere was over the Plot Road, a Class 3 dirt road from Johnson. This limited entry for emergency vehicles during extreme weather was problematic.

During the May 2012 flood Smithville Road was damaged. Back Road (Town Highway 3) between the two covered bridges flooded. The Halloween storm of 2019 caused widespread damage throughout the town to culverts, bridges, and roads.

In general, Belvidere’s flood susceptibility has been highly localized from storm event to storm event with some chronically impacted areas. Occasionally, houses within the Village have seen a small amount of water in the basements. As mitigation action, the Town is using resources from the Better Roads Program, Grant-in-Aid and FEMA to continuously improve town roads and infrastructure.

Fluvial Erosion Areas

Fluvial erosion is the removal of sediment from stream channel banks by the channel flow. This process occurs naturally over time as a stream channel makes adjustments. However, fluvial erosion can occur more quickly and severely during flood events and can pose a significant risk to infrastructure and buildings within the river corridor.



Other flood hazards result from flash flood situations in particular along steeper stream sections. Clearing of vegetation cover and constructing impervious surfaces, like roofs and parking lots, increases storm runoff particularly in higher elevations. To prevent flash flood situations, developments cannot increase the volume or velocity of streams. Channelizing and straightening streams increases stream velocity and increases the risk of flash floods. Many times, roads and driveways up steep hills create perfect conditions

for flash floods because they are designed to rapidly drain water from the surface and send it downhill in a straight steep ditch.

Flood Protection Programs

Belvidere participates in the National Flood Insurance Program (NFIP). Communities are required by the Federal Emergency Management Agency (FEMA) to adopt flood hazard regulations under the NFIP, which is structured to minimize risk to life and property. Regulations are required for property owners to become eligible for home mortgage loans and flood insurance. Belvidere adopted a stand-alone Flood Hazard Area Regulation Ordinance in 2000, which places regulations on areas of Special Flood Hazard as identified on the Federal Emergency Management Association's (FEMA) National Flood Insurance Maps. The areas designated as Zone A in the Special Flood Hazard Areas are those that have a 1 percent chance of flooding in any given year (the 100-year floodplain, Map 4.10). FEMA's Flood Insurance Rate Maps can be found in the Town Clerk's office. Unfortunately, these maps have not been updated since 1980 and may no longer provide the most accurate information. FEMA has begun a new round of updates to Flood Insurance Rate Maps. The initial kick off meeting in Lamoille basin (aka Discovery Meeting) was held in March 2019. The remapping process from the Discovery meeting extending to final draft maps and the local community map adoption process can range anywhere from 3-5 years. This effort will ultimately update the Flood Insurance Rate Maps for the communities in the study areas. The 100 year floodplain (for planning purposes only), is shown in Map 4.10.

The Better Roads Program from the state has road standards to avoid erosion and flash floods resulting from road design and construction. An example based on the state standards was work completed on Boarding House Hill Road in 2002. The road was improved with rock lined ditches and new culverts using funds supplied by the Better Backroads Program. This road had been experiencing routine washouts during heavy storm events. It is hoped that with these improvements, costs will be saved on repairs and water quality of the North Branch will be maintained.

Belvidere has also adopted driveway standards for its town roads to protect against washouts. The Selectboard should consider adopting state road standards so that any new roads, public or private, will be constructed to avoid erosion.

Groundwater Resources

Groundwater is the source for over 90% of the drinking water for rural communities in Vermont. It is replenished through rain and surface waters, which percolate through the soil. Any activity that introduces contaminants directly into the ground (such as underground storage tanks, septic disposal fields, and agricultural activities) can affect

groundwater quality. Since surface waters may also travel underground, surface water quality may affect groundwater quality as well.

Since all water in Belvidere is provided through private wells and springs, it is important to protect the quality of well water through appropriate separation between wellheads and septic disposal fields and other hazards. All wells and springs are required to meet Vermont's Water Supply Rules. According to the Vermont Geological Survey, the lands along Route 109 between Rattling Brook and Belvidere Corners have soil and geological characteristics that provide the best potential for groundwater.

The Agency of Natural Resources is responsible for the Vermont Source Protection Program to protect Vermont's public water sources. A public water supply is defined as any water supply system with fifteen or more connections or that serves at least 25 individuals daily at least 60 days per year. Source Protection Areas are defined around public water sources where contaminants are likely to move. While there are many private wells and springs, there is currently one public water source protection in Belvidere at the school.

Without detailed information about the direction of groundwater flow in Belvidere and surrounding communities, it is vital that all groundwater recharge areas town-wide be protected from activities that could contaminate the drinking water supply of residences.

Surface Water Class

Vermont's waters are classified according to a system that establishes goals to be attained or minimum standards to maintain, depending upon the present quality of a particular section of water. Assessments done during the Lamoille County Stream Stability Assessment (LCPC 2000) found that the North Branch is in excellent condition from its headwaters to Belvidere and in good condition through Belvidere. The section of the North Branch has very stable and in near-reference condition. The North Branch exhibits excellent riparian corridor quality, access to its floodplain, and little channel and bank erosion. Fish and macro invertebrate sampling was done on the North Branch in Belvidere during September 1992. A memo on the fish sample results stated: "the water appears to be a tannic color with low to moderate alkalinity. The physical habitat of the section was characterized by minimal sedimentation and a boulder-cobble-course gravel substrate. The population integrity was rated excellent due to the dominance of benthic insectivores combined with a strong presence of three trout species. Four of seven species collected were considered intolerant to general pollution effects... The Vermont Index of Biological Integrity rated excellent (43 out of a possible 45)." The macro-invertebrate community also was rated to be in excellent condition (Lamoille River Watershed Assessment Report, 2001).

Until recently, the Vermont Surface Water Management designation included two classes: A and B. Now, water is classified into five groups: class A(1), A(2), B(1), B(2), and B(3) depending on their management plan. Class A waters were divided into two subclasses: A(1) and A(2). Presently in the state, Vermont Statute classifies waters above 2,500 feet in elevation as A (1). The management objective for A(1) waters is to maintain their natural condition. Waters used as public water supplies are classified A(2). All remaining waters are class B(1), B(2), and B(3). The typing system (as it is termed) for class B waters is, for the most part, maintenance of acceptable conditions of water quality criteria such as aquatic biota, aquatic habitat, and recreational opportunities. A simplification of the B(1), B(2), and B(3) designations would be to say that the spectrum from B(3) to B(1) is described as “good,” “better,” and “best” aquatic conditions. All class B waters must still support the designated uses described in the Vermont Water Quality Standards for Class B waters, which includes suitability for boating, swimming, and drinking with treatment. Classification of Belvidere’s Class B waters has been postponed. There was an effort to classify the North Branch of the Lamoille River as a Class A1 water in the early to mid-90s. Despite a number of letters from residents, private consultants, and state officials supporting reclassification, the process was never completed and the petition never filed.

Basin Planning and Geomorphic Assessments

In 2016, the Vermont Agency of Natural Resources completed an update of the Lamoille Tactical Basin Plan for the purpose of improving water quality and aquatic habitat in the watershed.

The Lamoille Tactical Basin Plan identifies water quality stressors and opportunities and project types to improve water quality in the Lamoille River Basin. These opportunities are generally referenced in the Basin Plan available on VT Department of Environmental Conservation’s (DEC) website at <https://dec.vermont.gov/water-investment/watershed-planning/tactical-basin-planning>. More specifically potential water quality projects to improve water quality are searchable by Town in the Vermont Watershed Projects Database. To see what projects are referenced for Belvidere in the Vermont Watershed Project database visit:

<https://anrweb.vt.gov/DEC/CleanWaterDashboard/WPDSearch.aspx>.

The North Branch and its tributaries generally have good water quality including the headwaters in Belvidere. It is important for the Town to manage riparian habitats and runoff to maintain the water quality for future generations. The North Branch exhibits excellent riparian corridor quality, access to its floodplain, and little channel erosion.

While the shoreline of the North Branch is in excellent condition there are no regulations in effect to prevent encroachment or other threats to the health of the river. Enforcement of the on-site septic and floodplain regulations is important to protecting water quality but additional shoreline regulations would better protect this resource. The VT Agency of Natural Resources used the results of geomorphic assessment studies to map fluvial erosion hazard (FEH) corridors. Limiting development within these areas will minimize risk and provide streams the opportunity to reestablish a stable, equilibrium condition. Maintaining vegetated buffers around waterways also helps to minimize risk to property and provides water quality benefits. These buffers can be incorporated into local ordinances to ensure that future development does not further encroach on the Town's waterways. Belvidere Bog is currently designated by VT Agency of Natural Resources as a Class 2 wetland which regulates a 50ft buffer around the wetland. River Corridor maps and other resources provide a way to identify the appropriate buffer width needed to protect a river corridor.

Stormwater runoff from impervious surfaces, such as roads, roofs, and parking lots, and agricultural runoff are the two largest contributors to water pollution in the Lamoille Basin. The Department of Agriculture has produced 'required' and 'best' management practices for farms and silvicultural operations (RAPs and BMPs are also discussed above in soil resources). The primary concern with agricultural runoff is nutrient loading into the streams causing algae and biological pollution downstream. Where farms are believed to be having an impact on water quality, BMPs and other measures can be used to help prevent the runoff from entering the streams. Belvidere has no commercial dairy operations and the existing farms are generally small. Complying with RAPs and BMPs should, therefore, not be difficult. The Planning Commission will assist landowners who are looking to adopt management practices that prevent agricultural runoff with information and direction to USDA in Morrisville. There are many other organizations in Lamoille County also willing to contribute supplies and expertise to resolve water quality issues if the interest exists.

Runoff from logging operations will have impacts on water quality if erosion increases sediment runoff into streams and wetlands. Use of AMPs and BMPs mitigate these effects. Most loggers are aware of these requirements and comply with them. Anyone looking for information or assistance in complying with these standards should contact the County Forester for information.

New changes in state regulation are requiring tighter regulation of this issue. Using some basic development standards should prevent this from becoming an issue. Developers who 1) setback projects at least 50 feet from streams and 2) avoid channelizing runoff will be helping to ensure stormwater runoff does not enter waterways. These rules can be

required through zoning bylaws but educating landowners can work effectively as well. Addressing the stormwater issue now is far easier than trying to go back and retrofit old developments as is being proposed in other communities. As of September 1st 2020, the VT ANR released its new Stormwater General Permit (3-9050). This includes requiring stormwater retrofits and permitting for sites of 3 acres or greater of impervious surface. As of July 1st, 2021, the new development threshold for requiring a stormwater operational permit will transition from 1 acre to half an acre of impervious surface. For more information on the Stormwater General Permit and latest standards please visit the VT DEC Stormwater Program page at <https://dec.vermont.gov/watershed/stormwater>.

Fragile and Natural Areas and Wildlife Resources

Fragile & Natural Areas.

In 1976, the State of Vermont created an inventory of significant natural areas throughout the state. While natural area designation does not provide a site with any additional protection from development, it does act as a tool for increasing local knowledge of Vermont's important natural heritage. Only three sites in Belvidere were placed on the Natural Areas Inventory and none of these were placed on the Fragile Areas Registry. The sites placed on the Natural Areas Registry include:

Belvidere Bog

As discussed above in water resources, Belvidere Bog is approximately 375 acres of wetlands including seven different communities. It contains endangered species and habitats and, while not on the Fragile Areas Registry, is likely a candidate for inclusion. The registry would require any state action or state owned lands to meet a water and land use plan. Private lands would not be required to meet standards although recommendations are made.

Deer Yards

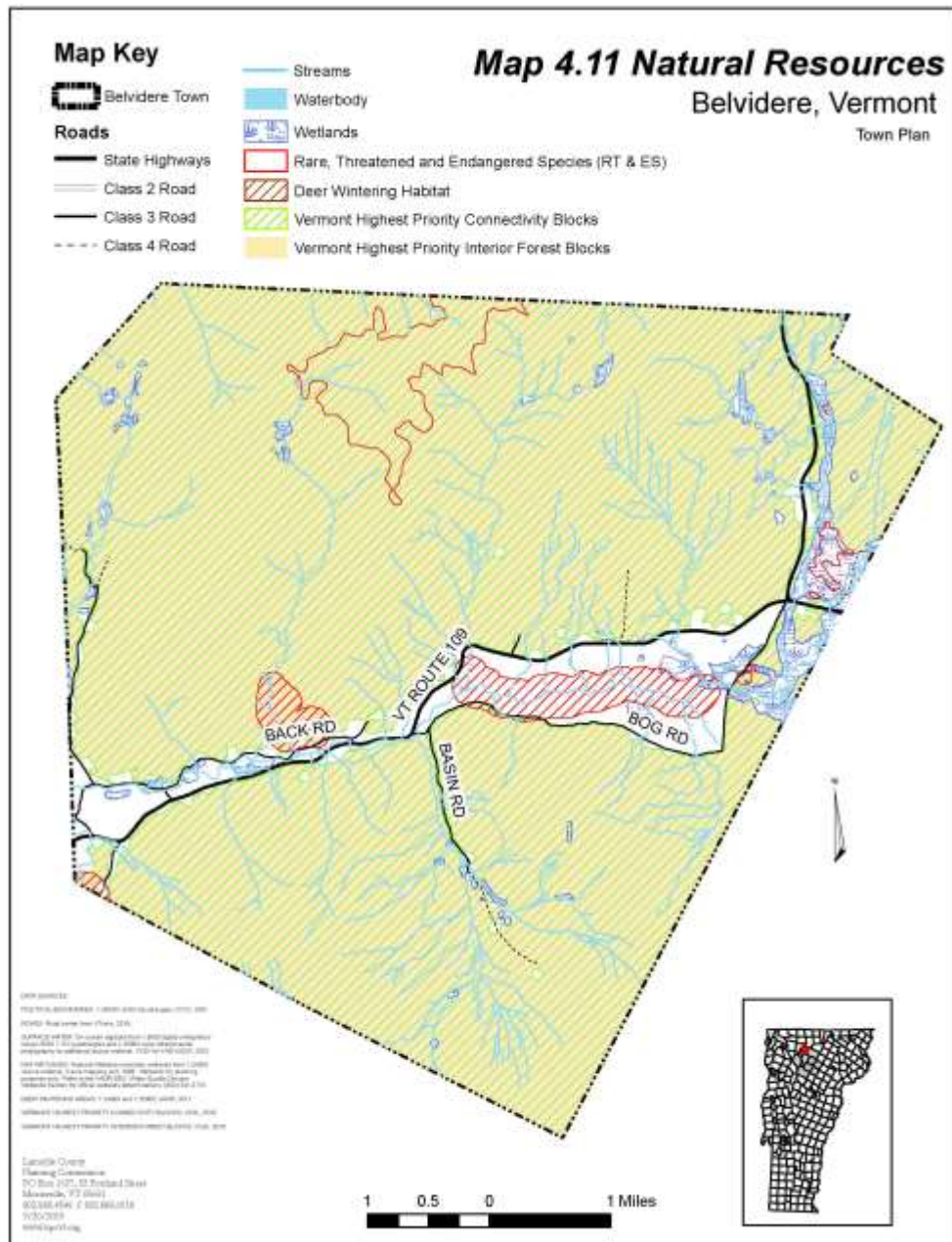
The deer yards in Belvidere were placed on the Natural Area Inventory due to their crucial importance to the survival of deer in town in the winter. They are discussed further below.

Kelly River Falls

Kelly River Falls is a small set of cascades adjacent to Belvidere Junction just north of Route 109. As discussed in the water resources section, the falls have local importance. It is unlikely the area would qualify for the Fragile Area Registry.

Critical Wildlife Habitat in Belvidere.

Vermont has identified several unique natural habitats in Belvidere, including deer habitat, bear habitat, locations of rare, threatened, and endangered species, and fisheries (Map 4.11).



Deer Wintering Areas

Vermont's deer require specific winter habitat in order to survive the seasonally severe weather and heavy snowfall. Winter deer yards provide two features important to

whitetail deer survival: shelter and food. Statewide, between 6% and 8% of Vermont's forestland is suitable for winter deer range under average winter conditions. Wintering areas do not change significantly between years and can be used by generations of deer over several decades if appropriate habitat conditions are maintained.

Bear Habitat

Bears require large areas of uninterrupted forestland for breeding. They also require travel corridors to move from one part of their habitat to another, especially as forested areas may be subdivided and developed. The Vermont Department of Fish and Wildlife prepared a map of black bear habitat in 1989 to indicate general areas of bear habitat. According to this map, all of Belvidere has been identified as bear habitat.

Rare & Endangered Species Habitat

Rare plants and animals are important for a variety of reasons. Some are indicators of unusual habitats or of colder (or warmer) climates in Vermont's distant past. Some serve as indicators of environmental quality. Some species may provide compounds for medicines or agricultural or industrial products. Finally, some are attractive and add beauty to the natural landscape. Many uncommon species will disappear if not recognized and given some form of protection.

Most of Belvidere's known rare and endangered species are associated with Belvidere Bog. Protection of this area is vital to these species and this town plan encourages the long-term preservation of the site.

Fisheries

According to the Lamoille Tactical Basin Plan (2016) Vermont Rivers Study, the North Branch has a naturally sustaining population of brown and brook trout along its entire length. State water quality records show that Belvidere Bog wetland complex has been rated highly significant for cold-water fishery habitat. Quality fisheries are important for recreation and for their role as a part of a healthy riparian environment.

Conclusions

Based on the findings of this chapter, the land use section of this plan considers two districts to protect the natural resources of Belvidere -a Natural Areas District and a Forest District. A Natural Areas District was established, encompassing areas that are environmentally sensitive, including Belvidere Bog.

The Forest District was established to encompass the high elevation areas of Cold Hollow and Laraway Mountains. Both of these mountaintops are over 2,500 feet, have shallow soils, are generally greater than 30 percent slope, and have erodible soils. While forested, these areas may not be appropriate for timber management due to the high risk of soil

erosion. The land use plan should address mechanisms that would protect these areas without causing an undue burden on property owners.

The Forest District is needed to protect the prime forestlands that exist in town today from fragmentation and development. These areas, which are the best land for timber management, have forest soils, shallow slopes, and are presently in large lots. While areas under 1,500-foot elevation may be appropriate for development, those above 1,500 feet should be conserved as working forestland (unless limited by the environmental concerns mentioned above). Again, any potential loss of development rights by property owners will need to be addressed in the implementation of the plan.

Within the Development District, regulations of uses adjacent to streams and rivers go a long way to protecting water quality, wildlife habitat, and the health and safety of the public.

Goals, Policies, and Recommendations

This Town Plan has three goals concerning natural resources -to regulate growth so that:

- Areas of natural beauty and wildlife habitat are not adversely affected but rather enhanced, encouraged, and maintained.
- Timberland management is economically feasible in the wooded area.
- Agricultural use of land is encouraged and protected.

Natural Resource Goals

Belvidere's town plan identifies and encourages protecting the natural resources that make up the foundation of our working landscape. Our town has an abundance of resources such as clean water, healthy forestland and natural areas. This plan has adopted three goals so that future generations have the opportunity for a strong healthy environment in which to work, live, and play.

- To use Belvidere's earth resources conservatively for the benefit of existing and future generations and to conserve and enhance the agricultural and forestry soils in town today.
- To preserve or improve Belvidere's water resources, including its ponds, streams, rivers, wetlands, groundwater, and associated habitats in order to ensure water quality for drinking, recreation, and the environment.
- To protect and maintain the healthy ecological conditions of natural areas, including wetlands, uplands, and critical plant and animal habitats.

Policies

The Town has developed the following policies in order to guide development in such a way as to protect the natural resources and achieve the goals mentioned above. Until

other land use regulations are adopted, the town is limited to commenting on Act 250 proceedings; therefore, any application should be reviewed in light of these policies. Many of the policies are not burdensome and residents are asked to consider them in planning projects. If issues such as water quality, gravel operations that become a nuisance, or development that threatens our natural areas come to light, the planning commission should consider proposing regulations that would oversee projects in these areas.

Land Resources

- Earth resources (primarily gravel) should be reasonably developed when deemed to be in the public interest.
- Development that is proposed near or over important earth resources should account for the potential loss of that resource.
- Extraction and related processing operations will be permitted only when it has been demonstrated that there will be no undue adverse impacts on the town or its residents. Potential conflicts between current land use and proposed extraction operations will be minimized. Strict standards for the operation, maintenance, and restoration of extraction sites may be established as appropriate based on the unique conditions of the area affected. The full restoration of extraction sites will be ensured through the submission of site restoration plans.
- All development within the Town must be pursued with strict regard to the capability of the soils to support it.
- Development on slopes greater than 30 percent are prohibited.
- Further fragmentation of productive agricultural and forestland is to be avoided so that continued access to productive forest and farmland will be ensured.
- Development within forest areas will be sited to avoid taking forest soils out of production.

Water Resources and Flood Resiliency

- Development near rivers and streams should be located in such a way as to minimize the number of stream crossings.
- A natural vegetative buffer 25 feet wide is required for all streams and 50 feet for the North Branch.
- All wetlands are required to have a 50-foot buffer. No filling or draining of wetlands is permitted.
- No structures should be constructed within a flood hazard area. Filling of the flood hazard area or obstructing the flow of floodwaters is also prohibited.
- Agriculture, recreation fields, parks, and open space are all appropriate uses of flood hazard area.

- No form of land waste disposal or storage of possible contaminants should be permitted in high water table and ground water recharge areas.
- All construction where soil is to be disturbed should provide adequate erosion control so that no soil moves off site or into surface waters or wetlands.
- Agriculture and forestry must abide by RAPs and AMPs. Where an activity may have a negative impact on water quality, BMPs are recommended.
- Belvidere will review the sensitivity assessment for the North Branch of the Lamoille River when the Agency of Natural Resources provides a report.

Natural & Fragile Areas.

- Development proximate to Kelly River Falls and Belvidere Bog will take place in such a way as to preserve their value for education, science, research, aesthetics, and recreation.
- Deer wintering areas must be protected from development and other uses that threaten the ability of the habitat to support the species. Commercial, residential, and industrial development shall not occur in these areas. Development will be permitted adjacent to deer wintering areas only if it is demonstrated, in consultation with the Department of Fish and Wildlife, that the integrity of the area for deer habitat will be preserved.
- Rare, threatened and endangered plants and animals and their habitats will be protected and preserved through appropriate conservation techniques. Where appropriate, a buffer strip should be designed and maintained to ensure protection.

Recommendations

Land Resources.

- The Town should consider purchasing the rights to a gravel pit or to purchase a property with sufficient gravel resources to provide for the town's needs in the future.
- Municipal gravel pits in Belvidere should develop plans to address environmental impacts as well as future restoration of the sites.
- Farm and forestland owners are encouraged to participate in the Use-value Appraisal (UVA) program.
- The Planning Commission should assist landowners interested in Accepted, Required and Best Management Practices with information and resources.
- The Town should support the efforts of organizations in the purchase of development rights and other conservation methods provided the land protected meets the objectives of this plan. Where possible, the planning commission should review proposed purchases and comment based on the goals of this plan.

Water Resources.

- The Planning Commission should consider acquiring funds to have a wetland inventory of the town conducted.
- The Town should consider purchasing properties or development rights of properties within the floodplain to permanently prevent development in those areas.
- The Planning Commission should consider creating a plan for the flood hazard areas to address recreational opportunities, flood hazard protection, and the potential for implementation of water quality measures.

Natural & Fragile Areas.

- Belvidere supports the acquisition of lands within and around the Belvidere Bog by local or state conservation agencies.
- The Planning Commission will support and provide guidance to any property owner with questions or concerns about their natural resources. As a result of living in Belvidere, many landowners have an ethic to be good stewards of the land. The Planning Commission recognizes that more can be accomplished by educating, advising, and assisting landowners with their natural and wildlife resource concerns than could be accomplished through regulations.

CHAPTER 5: EDUCATION AND CHILDCARE

Belvidere has consistently supported quality education of its children through the years. In fact, in the early 1800s there were up to five schools within its borders. The town continues to hold education for children, young adults, and adults as a priority.

With the changing job force, it is critical to educate youth early not only in traditional areas of reading, writing, math, and science, but also in coding, social skills, collaborative abilities, innovation, and creativity in order to be prepared for jobs locally as well as in the state and beyond. Middle school and high school students, in areas both academic and technologically based, need to learn early on the skills for effective job hunting and networking. They need to be made aware of the fields with the highest job growth such as medical areas, software development, financial analysis, and food service. They need to recognize areas where jobs are disappearing such as manufacturing which is down from 45% to 10% of the work force (Bureau of Labor and Statistics, April 2018) although that could change.

Facilities

Belvidere Central School (BCS) is set on a wooded lot of 3 and 1/2 acres west of Belvidere Center on VT Route 109. The building was constructed in 1995 and is maintained to current state safety and accessibility codes. Adjacent to the structure are over 70 acres that were deeded back to the town in 2018. Through Act 46, the Lamoille North Modified Unified Union School District #58 (hereafter LNMUUSD) took ownership of the school building for educational purposes. Today, the building serves for preK education. The building also acts as a Community Resource Center for Town Meeting Day and other events. In addition, the building serves as an emergency shelter and meets FEMA standards with a town owned generator. It stands outside of the floodplain and along a major road, Route 109, for easy access during emergencies.

As a member of the LNMUUSD grade school children attend Waterville Elementary School (WES) through 6th grade, Lamoille Union Middle School (LUMS) for grades 7 and 8, and the Lamoille Union High School (LUHS) and/or the Green Mountain Technology and Career Center (GMTCC) on Route 15 in Hyde Park for grades 9 to 12 and beyond. A few local children attend schools outside the district.

Enrollment History and Current Status

Beginning around 2000, enrollment in BCS decreased from 42 to 18 students, leading to its closure in 2004. Since then, elementary school age children attend the Waterville Elementary School. In 2018-2019, 40 Belvidere children attended WES. At some point, the Belvidere Central School reopened to accommodate the pre-kindergarten students from

Belvidere and Waterville. The BCS facility was designed to accommodate approximately 60 students.

LUMS and LUHS accommodate approximately 900 students and the current student population is within the schools' capacity. In 2019, four Belvidere students attended LUMS and sixteen students attended LUHS/GMTCC.

Figure 5.1

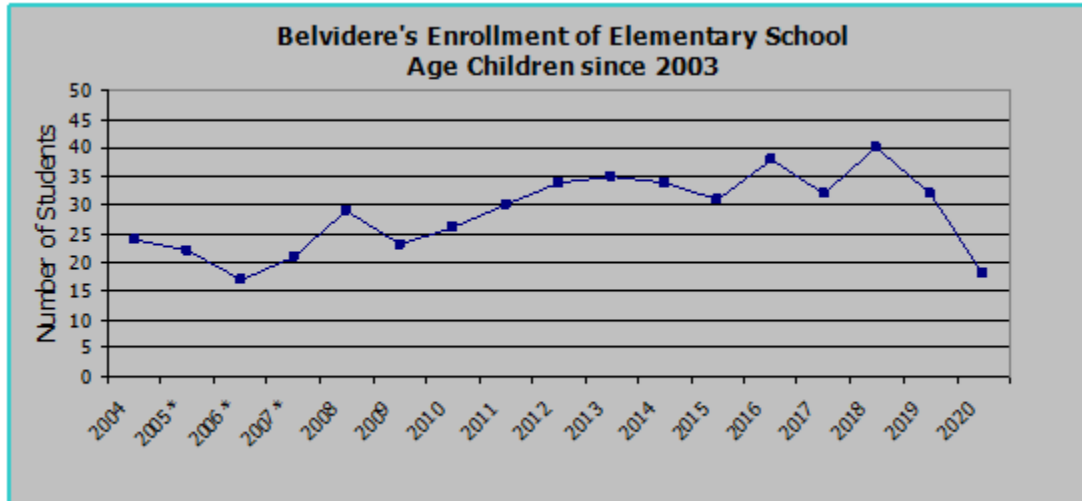
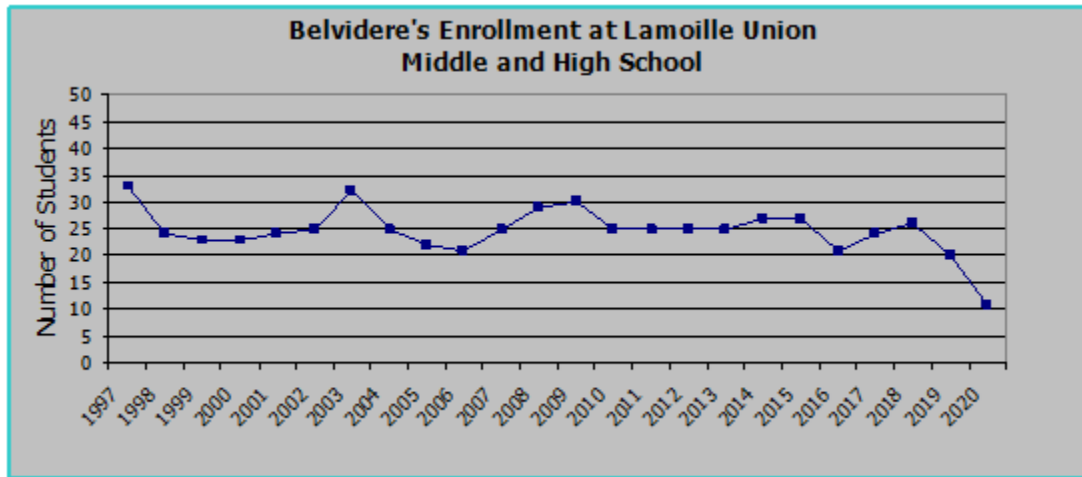


Figure 5.2



Educational Services and Programs

From 2004 to the present, kindergarten through sixth grade Belvidere students attend Waterville Elementary School. (See Chart). Pre-K students from the towns of Belvidere and Waterville attend programs at BCS. For more information about the elementary school see www.wesvt.net/

LUMS provides education to 7th and 8th graders and LUHS for grades 9th through 12th. Parents may pay to send their children to private schools or other public high schools if accepted and approved. There is more leeway with grade school children who can, with permission, go to a grade school of their choice within the district.

GMTCC offers career and technical education to all incoming juniors and seniors as well as adult learners from the surrounding school district areas. There are programs in automotive technology, business administration, computers, multi-media, agriculture, construction trades, electrical trades, HVAC, forestry and land management, manufacturing technology, and health and human services, including child care. Nursing and other medical preparation programs align with areas of the biggest predicted job growth. There are conversations in the 7th grade about career interests and in 10th grade about personal finances. There are also programs in Coding and Cyber security, sugaring at a sugar house which is at the forestry facility on the GMTCC Satellite Campus in Hardwick, and agriculture at a satellite farming campus in Jeffersonville. Home-based business planning is another option. For more information about the high school programs see the website for LUHS and for the middle school the website for LUMS.

Home schooling in Belvidere is an option used by some families. The exact number is unknown, but parents must have a plan approved by the state and are monitored by the Vermont Department of Education. LNMUUSD works with families to assist their efforts through access to services and resources such as music, the library, and extracurricular activities.

School Governance

Belvidere is represented on the LNMUUSD school board by one member among 18, each of whom serves for three years. The Belvidere member is elected at Town Meeting in March. The Board develops the budget and oversees the administration of BCS and WES, as well as grade schools in three other towns, LUMS, LUHS, and GMTCC.

Education Costs

Cost of the Facilities

The BCS building is paid for; however, the expense of necessary repairs to the structure will continue for education purposes, paid for by the school district, and as a community emergency center, paid for by the town.

Cost of Providing Education

The cost of providing education is currently \$16,079 for an elementary student and \$15,879 at the secondary level, per equalized pupil (Source: LNMUUSD reports and D. Clark, District Business office, 2018). Costs have fluctuated greatly based on changes

mandated by State Acts 60, 68, and 46; building of the school and paying for the bond; consolidation; and enrollment changes. Currently, with the consolidation into the supervisory union, the cost per pupil and the taxes dropped for a year but are again on the rise. The purpose of the consolidation was to reduce costs and improve education through shared programs and staffing.

According to the current WES principal, benefits have come in the form of more equitable financial apportionment, increased numbers of computers and coding classes, a literacy and math coach, alignment of programs among schools feeding into LUMS, restorative practices for truant children and their families as well as a facilitator for new science standards and inquiry programs. (For more information see the Website for WES.)

At the high school, in alignment with Act 77, a goal is to have personalized learning plans (PLPs) and proficiency-based learning in order to graduate students who are college and/or career ready with the knowledge, skills and work habits they will need in adult life. These goals align with the newer federal body of laws governing education, ESSA, Every Student Succeeds Act. Currently attention is given to Transferable Skills. (For more information see the high school website.)

Issues surrounding Educational Facilities and Services

Enrollment

The number of Belvidere students has fluctuated most notably with a significant drop from 2002 to 2004, (See Chart 5-4) but currently the student population from Belvidere remains steady at about 40 students including Pre-K.

Students Attending Special Schools

Currently a few students attend Laraway School in Johnson in connection with the school district and other students attend special education programs elsewhere.

Childcare

Currently there are no licensed child care providers in Belvidere. Parents of local young children look to friends and family for informal, temporary assistance. More structured programs are available near places of employment and there are several support programs for young parents in Morrisville at the Lamoille Family Center. For more information on services see www.lamoillefamilycenter.org/ or call 802 888-5229.

Busing

Because of the rural nature of Belvidere, walking to school is not a realistic option and there is no relevant public transportation, so bus service is provided for students to WES,

LUMS and LUHS. The school district provides these services for Belvidere students through a contracted bus service.

Library

Belvidere does not have a public library or a current library association, but still owns a large collection of books. Libraries with lots of volumes and programs are available year round in Johnson and Jeffersonville. Waterville has a seasonal library. In addition, books may be checked out from Northern Vermont University. Some libraries offer courses on line.

Colleges and Adult Education

With the types of available jobs changing constantly, it is important to have colleges and continuing education programs available that adapt to the evolving work world. Many jobs don't even exist yet, technologies have not been invented, and there are problems to solve of which we are not yet aware. According to the Dept. of Labor, 65% of current students will be employed in jobs that have yet to be created and 40% of current jobs will soon be a thing of the past. Schools need to stay current to prepare young adults and job transitioning adults for employment. (For more information see the website of LUHS.)

In Lamoille County college level and continued training classes are available at the community College of Vermont (ccv.edu) with courses in medical fields, business, criminal justice, and liberal arts. Vermont Technical College in Morrisville is another option with online courses. For more information see www.vtc.edu/

Northern Vermont University, a four-year liberal arts college with campuses located in Johnson and Lyndonville, is part of the state college system, and offers courses in Outdoor Education, Art, Nursing and many other fields. (See www.northernvermont.edu) There are summer programs for local young people and a few high school students attend courses during the school year at NVU. Johnson is also home to the Vermont Studio Center, an international artists' and writers' residency program. For local residents, VSC offers free gallery exhibits and speakers, as well as fee-based programs for youth and adults in the area.

GMTCC offers both day and night adult education courses for anyone who is no longer enrolled in a traditional high school. (<http://gmtcc.info/>) Central Vermont Adult Basic Education (CVABE), a learning center in Morrisville, offers free instruction to individuals no longer enrolled in public schools who seek training in basic educational programs that lead to a high school diploma. (See www.cvabe.org/.) Several of these institutions offer on-line classes in many subject areas.

Within and beyond Lamoille County, in Vermont, there are a number of educational institutions of note: University of Vermont, Champlain College, Sterling College, St. Michaels College, Middlebury College, the College of Fine Arts in Montpelier, and the Vermont Woodworking School in Cambridge.

Goals and Policies and Recommendations

The town currently does not have any growth issues that will affect the educational system. Belvidere school enrollment seems to be holding, but the planning commission with the assistance of the school board representative and school principals should monitor future growth or decline. In the LNMUUSD 2018 report there was a prediction of slow growth in the area for school aged population.

Goal

- To plan for the future education of our citizens in a way that allows Belvidere to provide quality, safe, education services and adequate facilities for local residents without placing an undue burden on taxpayers.
- To participate in the planning for the use of our local school buildings for educational and other purposes for the foreseeable future.

Policies:

- Future development should not exceed the capacity of the town to provide educational services.
- Belvidere recognizes the importance to our community of high quality early education and daycare. Belvidere supports some organizations that provide these services in Lamoille County.
- Belvidere supports the GMTCC and their efforts to broaden access to education for adult learners and to provide vocational opportunities for students.

Recommendations:

- Encourage parents and other local citizens to become involved in school and community activities.
- Encourage the school children to connect with the surrounding community through outreach volunteer programs.
- Encourage the children of our town to engage in outdoor education programs and activities through conversations with principals and parents. Learn about special outdoor education program grants that are available.
- Encourage the Board representative to attend Belvidere Planning Commission meetings to share information
- Survey citizens of Belvidere about childcare and after school program needs.
- Inquire about special literacy programs available for Belvidere children.

- Inform Belvidere citizens regarding apprenticeships and mentoring possibilities in our area by connecting with GMTCC's website and the Department of Labor.
- Encourage the LNMUUSD to keep Belvidere Center School open as an educational facility as well as a vibrant community hub.
- Contact state senators and representatives to ensure that the concerns of small town schools are not overlooked in state educational planning and funding.

CHAPTER 6: FACILITIES AND SERVICES

As Belvidere is a small town, there are limited facilities and services; however, the Select Board and the BPC monitor and attend to the existing systems as well as attend to possible future needs.

Facilities

Water and Sewer

Water and sewer systems are privately owned with the exception of a municipal water system that serves the school. Individuals wanting to install a septic system, to work on their leach field, or to drill a well need to receive a Wastewater and Potable Water Supply Permit from the Vermont Department of Environmental Conservation (DEC). After July 1, 2007 new rules took effect which delegated the authority of permitting private on-site water supply and wastewater systems entirely to the State of Vermont rather than municipalities, unless a municipality applies for and is granted delegation. Belvidere has not sought delegation and therefore does not have authority to review or permit wastewater systems as was done prior to 2007. Any complaint or discovery of a failing septic system may be referred to the Agency of Natural Resources (ANR) by the local Health Officer. Owners of failed systems will be instructed by ANR on how to bring their systems back to operating condition.

Storm Drainage

Other than culverts associated with roadways, Belvidere does not maintain a storm drainage system. The State of Vermont regulates stormwater runoff on construction sites. For more information, please see the state stormwater permitting rules.

Telecommunication Facilities

Consolidated Communication owns and maintains phone lines in Belvidere. There is fiber optic running most of the length of Route 109 and there is a wireless hotbox located at the Belvidere Central School. Any and all cell tower construction, must follow FCC regulations.

Additional Telecommunication Facilities Guidelines

Belvidere supports residents having access to affordable telecommunication service, as long as when locating a tower, consideration is given to:

- wildlife habitats
- soil erosion
- forestry
- agricultural lands
- scenic views

- historic and archaeological sites
- recreational opportunities

For more information about appropriate siting of cell towers, see the guidelines described in the Energy and Land Use sections of this plan.

Tower Lights

Lights should not be placed on any tower unless required by the FAA rules.

Tower Security

Towers should be protected from unwanted access by the public.

To limit access to the tower,

- a fence six feet high with a locking portal must be placed around the facility's tower base,
- the tower climbing apparatus must be limited to no lower than 12 feet from the ground, or
- the facility's tower may be mounted on a roof top.

Tower Setbacks

The minimum setback distance between each tower and all surrounding property lines, overhead or utility transmission lines, other towers, electrical substations, public roads and dwellings must be equal to no less than 1.5 times the total height of the tower unless

- appropriate easements are secured from adjacent property owners
- a waiver demonstrating there is no possibility of damage to structures or infrastructure in the event of a collapse is approved by Belvidere.

No part of the tower guy wire anchors, may extend closer than ten (10) feet to the property boundaries of the installation site.

In no case, must towers be located within 1.5 times the height of the tower from public highways.

Access Roads

Access to towers should use existing roads and trails for service.

When new roads are needed, access roads must be designed to minimize

- amount of land used
- adverse environmental impacts
- adverse visual impacts
- forest fragmentation

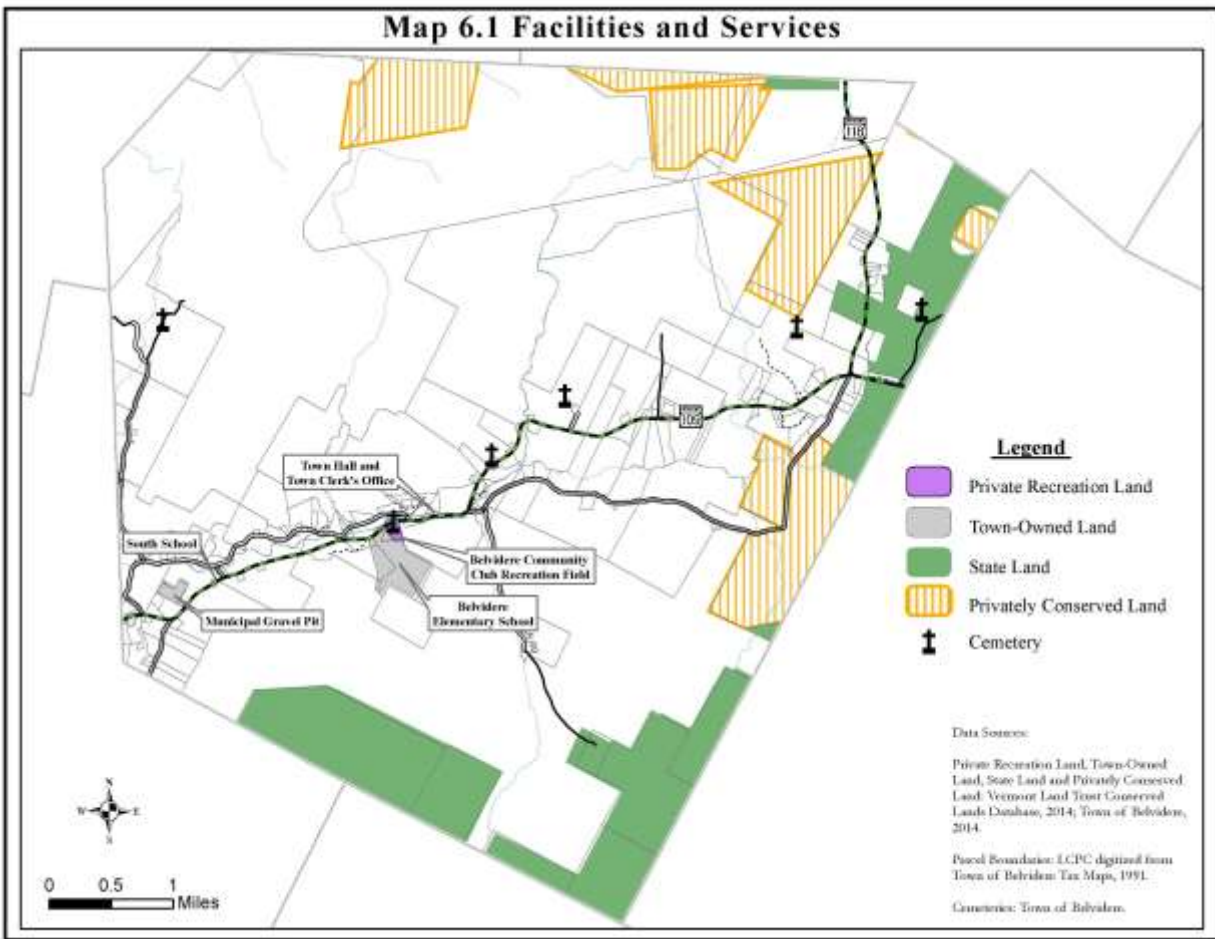
Roads built for access to towers will not be eligible for Town ownership.

Large Cell Tower Viability

With the possible addition of shorter cell towers that extend from existing electric poles, tall cell towers might not be necessary in the near future. Access to such shorter towers already exists through VEC rights of way over the land of private landowners. Use of access by utilities over private property needs to be monitored.

Municipal Facilities and Properties

The Town of Belvidere owns two buildings: the Town Clerk's Office and the old District #2 School (Map 6.1). There are two covered bridges owned by the town that are of special interest, the Morgan Bridge and the Mill Bridge discussed in more detail in Chapter 3 under Historic Structures.



The Town Hall was renovated in 1995 to be the Town Clerk's Office. Improvements to the vault and conference room were completed in 2001 to protect against flood damage. The office is located on a 0.5-acre parcel of land.

The Old District #2 School is of special interest because it is a historically significant structure. Years ago it was one of at least five District School Houses. It is located on a 0.6-acre parcel of land.

The Belvidere Central School, which belongs to the LNMUUSD, remains available to the town for Town Meeting and other purposes. The building also acts as Belvidere's emergency shelter. The building was outfitted by the town with a Caterpillar Diesel Emergency Generator in 2002 to provide electricity if power is lost.

The town also owns several parcels of land including approximately 70 acres of land behind the school building and 19 acres, which is the site of a municipal gravel pit (Map 6.1). In addition, there are cemeteries described below and two vacant lots of 0.5 elsewhere in town.

Recreational Facilities

The Belvidere Community Club, a civic organization, owns and maintains a recreation field for the use of the community.

Cemeteries

There is one public cemetery, which is cared for by the Belvidere Cemetery Association. The cemetery is approximately 4 acres in size. In addition, there are several private family cemeteries. All known cemeteries are indicated on Map 6.1 Facilities and Services.

Other Public Lands

Over the past 25 years, a considerable effort was made by the State of Vermont to purchase and preserve land for conservation of the Long Trail. According to the 1990 Belvidere Utilities and Facilities Report, the state owned a total of 14.5 acres in town. In 2020, the State owns 3,360 acres of land in the Town of Belvidere according to the Regional Planning Commission. The locations of these properties are shown on Map 6.1 Facilities and Services. In addition, there are several privately owned and conserved parcels for which the development rights were purchased by the state. See map 6.1. The Green Mountain Club leases 1200 acres for the section of the Long Trail that runs through town.

High Speed Broadband Service

High Speed Broadband continues to be inconsistent, but research is underway for improvement. In 2020, Belvidere citizens voted to join a newly formed Communications Union District (CUD) and the town currently is represented by two residents.

Emergency Services Planning

Dialing 911 accesses all emergency services available to residents of the Town of Belvidere. The services are dispatched out of Lamoille County Sherriff's Department. The wireless hotspot at the town emergency shelter at the school, will help provide communications during power outages.

Annually, the Selectboard appoints an individual to serve as the Town's Emergency Management Director who represents the town on the Local Emergency Planning Committee District #11 (LEPC 11) which serves Lamoille County. The mission of the LEPC is to support towns with preparation for emergencies including dealing with hazardous materials. For more information about LEPC support plans and services, access the LCPC site.

Local Hazard Mitigation Plan

Belvidere has a Local Hazard Mitigation Plan (LHMP). The goal of this plan is to provide a local mitigation strategy that expands the disaster resilience in the communities of Lamoille County. LHMP is updated every five years.

Local Emergency Management Plan

Belvidere currently has a Local Emergency Management Plan (LEMP) that guides the community through the early stages of disaster response. LEMP is updated annually.

Emergency Response Providers

Police

The Vermont State Police (VSP) supply Belvidere's police services. The Lamoille County Sheriff's Department handles all 911 emergency calls from Belvidere and dispatches the appropriate agency. The associated fees for this service are paid for by the town to the Lamoille County Sheriff's Office.

Ambulance

The town contracts for ambulance services with Newport Ambulance Service Inc. (NAS), which acts as a provider for the towns of Belvidere, Eden, Hyde Park, Johnson, and Waterville. NAS operates within these towns using the Northern Emergency Medical Services (NEMS) division. NEMS provides emergency transport as well as a non-emergency medical transport to the citizens and visitors of the towns. NEMS operates out of their new facility on Route 100C in East Johnson, across from the Lamoille County Field Days site. The towns form a five-member oversight board, with an additional oversight board member from Copley Hospital.

Fire and Rescue

The Town of Belvidere has an agreement with the Village of Johnson Fire Department and Rescue Squad to provide fire and rescue services; fees for this service are paid for by the town. Due to the time necessary for Johnson to respond to calls in Belvidere, improvements such as dry hydrants have been installed to speed access to water supplies. Four dry hydrants are located in Belvidere: east of the intersection of Route 118 South and Route 109, a mile down Bog Road from 109/118 intersection, along Route 109 at Belvidere Center, and adjacent to the Morgan Bridge on Back Rd.

Health Providers

The area is served by a variety of medical practices in Lamoille County and hospitals in Morrisville, Newport, St. Albans, and Burlington.

Child Care Providers

The availability of quality child care has become an increasing issue across Vermont. The Planning Commission believes that there is a need for more child care services and encourages residents interested in opening a child care to contact the state Child Development Division for information.

Solid Waste

Belvidere is a member of the Lamoille Regional Solid Waste Management District (LRSWMD), a municipal district formed to serve towns of Lamoille County as well as Craftsbury and Worcester. Funding is covered entirely by user fees. There are transfer stations in Johnson, Eden, Cambridge and Stowe. Weekly curbside pickup is available from private contractors.

Other Community Wellness Services

The Town of Belvidere does not provide social services to residents directly but does contribute financial support annually at Town Meeting to private and non-profit organizations that do. Many of these services are critical to families in order to meet day-to-day needs. For a list of these organizations see the most recent annual report.

Goals, Policies, and Recommendations

Belvidere has few facilities and services. Belvidere consistently supports the efforts of private and non-profit organizations that provide essential services for residents.

Facilities and Services Goal

- To ensure adequate public facilities and services are available to protect and enhance the lives of residents and visitors without placing an undue burden on taxpayers.

Policies

The Town has developed policies to promote moderate growth as described throughout this plan. With moderate population growth, the town should be able to maintain adequate services needed for the community.

- Belvidere supports regional efforts to provide improved emergency services communications.
- Belvidere should take a long-term view of costs to the town's taxpayers in any purchase or new program.
- Belvidere should continue to support private and non-profit organizations that provide essential services to residents.
- Belvidere supports the efforts of the Belvidere Community Club in providing recreational facilities and services to the residents and visitors.

Recommendations

The recommendations are for the Selectboard to continue its policies of fiscal responsibility while providing services for Belvidere's residents and visitors.

- Belvidere should continue its participation in the CUD, research Broadband and other internet and cell reception options, and monitor their effects on the town residents and their properties.
- Belvidere should assist with maintenance and improvement to its emergency shelter when possible.
- Belvidere should continue to provide fire, rescue and ambulance services through contracts with surrounding towns and private companies as an economical means of providing necessary services.

CHAPTER 7: ENERGY AND UTILITIES

Introduction and Overview

The use of clean, renewable energy is a topic discussed in local, state, national, and global conferences. The state of Vermont encourages the reduction of fossil fuels and has asked municipal planning commissions to investigate a shift to additional renewable sources. For many years, Belvidere residents have relied on a mix of renewable and non-renewable energy for electricity and for home heating while transportation fuel has been almost exclusively non-renewable. Many residents do not have the option to change their sources of energy; however, they can conserve energy use and save money by implementing conservation practices.

The predicted continuous though slow growth of the town, combined with technological and communication advances, will create an increasing demand for dependable electrical energy. Affordable electric rates coupled with available multi-phased power and adequate electrical capacity will be critical to planning for future housing, transportation, and economic development in Belvidere.

Belvidere will endeavor to meet its future energy needs within the municipality through private energy production. From a survey conducted at the Town Meeting of March 2018 there was some documented information about energy ideas from residents who completed the form. The respondents showed interest in types of private generation with solar leading the way followed by cord or wood pellet, individual wind, and individual hydro. The results of the survey and the survey itself are available at the town clerk's office.

Belvidere is a small town and does not, at this time, require or encourage a large energy facility with extensive complex infrastructure to meet its energy needs. Half of the March 2018 Survey participants did not support large scale wind generation development. In reaction to a large-scale solar project about half the group was interested in such a project and several respondents said that such a project would require investigation.

For projects beyond the scale of private generation, relevant aspects of Act 250 would have to be addressed including preservation of high priority interior forest blocks and wildlife corridors. Above all, development of energy generation should be balanced with maintaining the scenic beauty of Belvidere. In the March 2018 survey, many residents who were not born here stated that the reason they chose the town as their home was the natural, rural, quiet beauty. For further information about local, regional, and state energy generation see the LCPC website.

Specific Energy Providers

Electricity Providers

Belvidere residents are served by two electric utilities, Vermont Electric Cooperative Inc. and Green Mountain Power.

Home Heating Fuel Providers

Heating fuels are provided through private sources and several area companies.

Transportation

Currently, to purchase standard vehicle fuel, residents of Belvidere travel 8 to 10 miles to neighboring towns. Electric charging stations are available in Johnson and Hyde Park.

Energy Resources and Uses

Electricity Sources

Electricity can be generated from a variety of sources including hydro, nuclear, biomass, and fossil fuels such as coal, oil, and natural gas. Other sources for electricity include solar, wind, methane recovery, and biofuel.

Currently, there is no commercial electricity generating facility in Belvidere; therefore, most power is purchased from outside of the town. Belvidere's electricity providers purchase power primarily from Hydro-Quebec and also from the McNeil Biomass Company, other hydro companies, their own solar arrays, net metering, and the New England Power Market which includes oil, natural gas, and nuclear. Overall hydro makes up 59.5% of the electric supply, followed by natural gas, nuclear, wind/solar/farm methane, and wood with the smallest percentage allotted to oil. Electricity delivery to Belvidere is through substations in Montgomery and Cambridge. The 3 phase power line on Rt. 118 is a 34.5 kV subtransmission line. VEC has 7.2 kV single phase distribution lines serving members along Rt. 118 and Rt.109.

Studies of wind currents in the state indicate that the Cold Hollow Range, Belvidere Mountain, Laraway Mountain and Butternut Mountain have sufficient wind potential for commercial generation. These areas, however, are far from the power grid and all have been identified for protection from development for aesthetic reasons as well as their significance as high priority forests, wildlife habitat, and wildlife connectivity. The mountains and forested areas importance as contributors to carbon sequestration should be considered as well. In addition, there are areas in Belvidere where small scale community based solar or wind generation are possible and these could be explored.

Above all, it is important for residents to have input about what kind, where and to what extent power generation is permitted within Belvidere.

Although the North Branch of the Lamoille River runs through town, it is unlikely that any large scale hydroelectric facility could be located in town. The high quality of the water and the significance of the river habitat as well as the lack of steady flow make it a poor candidate for such a proposal. However, small scale non-invasive hydro technologies could be explored for individual residences. Also, should a neighboring town go forward with a hydro facility, Belvidere could investigate partnering with a nearby community.

The possibility of a small scale biomass facility could be explored as well for a cluster of residences surrounding the town clerk's office; however, such a facility might not be feasible because there is not sufficient density of public buildings or population. Should biomass become a viable local source of energy in the future, Belvidere residents could be involved in the technological end of such a facility as well as in related logging and forestry industries.

Sources of Fuel for Heating Homes and Commercial Buildings

The heating of homes and businesses is an important sector in energy plans. One locally renewable source for heat in Belvidere is wood. Although federal and state restrictions regarding setbacks and emissions exist for external wood furnaces, called Outdoor Hydronic Heaters in federal regulations, many local residents heat with wood in furnaces and stoves. Solar power has also been used effectively for a few homes for both heat and water. Other sources of home heating fuels include oil, gas, kerosene, and electricity. The town school is heated by oil and the town clerk's office is heated by propane.

According to some studies the use of electricity for heating homes and commercial structures will increase in the future. Use of biomass, hydro, solar, and wind as sources of power for home heating can be explored for private use and for small scale shared arrangements within Belvidere. The town can also work in conjunction with nearby towns on power generation that could heat structures in Belvidere.

Transportation Fuel Sources

The rural character of the town makes it necessary to have an automobile or truck for transportation. There is no local source of vehicle fuel at this time; however, that situation could change. With the majority of the Belvidere workforce commuting out of town for work and one third travelling outside the county, personal transportation is essential. There is a GMT public daily commuter service between Jeffersonville and Burlington to which locals can drive, park, and then ride. Local residents can also take advantage of

Park & Ride facilities for carpool or ridesharing purposes and reduce the amount of fossil fuel used. Currently there are two formal Park & Ride lots near Belvidere, one west of Cambridge Village on Route 15 and one near the Hyde Park town offices just off of Route 15. An informal Park & Ride is also available along Route 15 east of Jeffersonville. An informal park and ride location could be explored within Belvidere should the need arise. In addition a charging station could be explored if there is a future shift to electric vehicles; however, private electric charging arrangements are preferred. According to the results of the March Survey half of the respondents indicated they would never own an electric vehicle, a few within the next 10 years and a few when they are more affordable. At present one resident owns an electric vehicle.

Energy Consumers, Energy Needs, and Conservation

Individuals

Energy conservation is encouraged for the inhabitants of Belvidere. Residential customers can save energy by: installing heat pumps; improving insulation; replacing inefficient appliances, windows, and bulbs; siting homes to take advantage of passive solar; conserving usage and following recommended guidelines for energy efficient construction with the building of new structures as well as with renovations.

Industrial and Commercial Consumers

Three phase power exists along Route 118 in Belvidere and can be brought to private enterprises by those willing to pay for the service.

Guidelines for Future Energy Systems

- Belvidere supports residents having access to affordable energy.
- Belvidere supports residents installing self-generated energy as long as facilities do not pose a potential threat to public health and safety.
- Small scale community energy systems are possible provided they do not place a demand for increased local services that results in significantly raising the tax burden for residents. Systems under 150 kw can connect and work out arrangements with current providers. For generation capacity over 150 kw connection with an electricity provider would have to be arranged according to regulations in place at the time of connection. BPC encourages private ventures to include their own on-site energy generation in their planning and at the time of construction.
- If possible, power lines should be underground.

- If possible, installers of private power generation systems and attendant access roads, should use materials, architectural styles, colors, textures, screening and landscaping to promote aesthetic compatibility with surrounding uses to avoid adverse visual impacts.
- Avoid use of external invasive lights.

Goals, Policies, and Recommendations for Energy and Utilities in Belvidere

Goals

- For citizens to generate energy they need locally from renewable sources if possible.
- For all energy to be provided in a safe, reliable, code compliant, and efficient manner.
- For energy efficiency and conservation to be used in the design, construction and use of municipal, industrial, commercial and residential structures.
- For citizens renovating to winterize homes with energy efficient insulation, appliances, construction materials, and bulbs when feasible.
- For the town to explore a vehicle charging station as well as a Park & Ride location in town should the need arise.

Policies

- Belvidere supports the use of residential small-scale wind, solar, hydro, and biomass to generate electricity locally
- Belvidere supports efforts to create a wood-burning or co-generation facility in Belvidere or in the county, provided jobs are created for town residents either in the facility or in the procurement of fuel.
- Planning for future power transmission lines should encourage underground placement, in order to serve other objectives of this town plan.
- Belvidere supports the use of energy efficient appliances, heating systems, weatherization, and LED light when feasible in Town owned buildings and outdoor facilities.

Recommendations

- The Planning Commission recommends requiring utilities to be buried if a subdivision is proposed that triggers Act 250.

- The Planning Commission recommends that Belvidere residents individually research the ways to reduce energy uses and cost, as well as reduce their carbon footprint. A good source for this type of information is Efficiency Vermont.
- The Planning Commission recommends workshops to present information about energy conservation, including topics such as cold climate heat pumps; electric cars; charging stations with battery storage; solar shingles; and Park & Ride options.
- The Planning Commission supports the education of all interested residents in all career aspects of the energy industry including areas such as implementation of weatherization, installation of local private energy systems, and repair of electric vehicles.
- The Planning Commission supports exploring the feasibility of partnering with nearby towns on the future development of energy systems.
- The Planning Commission does not support development of any large scale energy generation plants in Belvidere.

CHAPTER 8: HOUSING

Nestled in the valley along the North Branch of the Lamoille River between the Cold Hollow and Laraway Ranges, Belvidere has long been a haven for independently minded homesteaders and seasonal nature enthusiasts alike. Seasonal dwellings have historically comprised a large percentage of the total number of housing units in Belvidere. Although several new “camps” have been constructed in the past few years, the trend shows (Table A) that full time residences are becoming far more predominant and will likely continue to do so as housing costs rise and availability decreases in more urban communities.

Table A

Belvidere Housing Units	Year 2000	Year 2010	Year 2020
# Total Units	194	210	TBD
# Seasonal	68	42	TBD
% Seasonal	35%	20%	TBD

Sources: Census, census data from 2020 was unavailable at time of print.

In recent years, Belvidere has attracted a number of younger families pursuing simpler, more sustainable lifestyles. Belvidere’s extremely low population density, available property, and lack of zoning regulations provide ample opportunity for both home renovation projects and new construction. The median house cost in 2016 was just \$156,000 a figure that is more than 20% lower than the median for Lamoille County and the State of Vermont as a whole.

Belvidere also embraces the State of Vermont’s 90/50 renewable energy program by welcoming self-powered, off-grid dwellings that use currently accepted, safe methods of power generation as long as there is adherence to local and state septic requirements. Energy efficient construction in new homes is preferred.

Long commutes to employment centers, lack of public transport, and few other services continue to make Belvidere unattractive for multi-unit housing development. Feedback from some local residents does not favor a mobile home development, but there may be interest in further investigation into a “Tiny House” Development designed for the 55+ community.

For all the reasons outlined above, and because Tiny House owners show a distinct preference for rural, scenic areas, Belvidere is an attractive option for potential Tiny

House owners/buyers. Tiny Houses have become a popular and cost effective option for retiring baby boomers. Two of every five tiny house owners are at least 50 years old.

Convenient access to outdoor recreation, including proximity to several major ski resorts, affordable land costs and a true sense of community provide for the quality of life that is so highly sought after. Ever increasing restrictions on tiny houses in many urban areas could make this a viable option for attracting new, remote workers to the State, while providing a remedy for affordable, quality housing for those newcomers, and other, moderate income residents such the 55+ community.

Belvidere would also like to encourage any Tiny House community to be designed around the “Agrihood” concept. This development model would not only provide affordable homes, but would provide local employment in agriculture in keeping with state and town goals to encourage and strengthen the agricultural industry. Additional local employment opportunities could include locally sourced construction materials, construction labor, property maintenance and future service positions.

The Town of Belvidere especially feels that it would be an excellent location for an active senior’s facility and/or retirement community providing a peaceful, tranquil natural environment with easy access to local activities such as fly fishing, hiking, covered bridge admiring, skiing, and so on.

There were 6 total senior care facilities in Lamoille County in the most recent Vermont Housing Needs Assessment. The one facility that was surveyed had a 0.0% vacancy rate and 8 households on the waiting list. With Vermont’s rapidly aging population the total 157 beds in these 6 facilities will be insufficient.

The closest nursing home is approximately 25 miles away in Morrisville. The possibility of a higher care elderly facility could exist here if an agreement could be reached with a local hospital and/or ambulance provider to make Belvidere a remote outpost.

Belvidere has now, and has had historically, a number of multigenerational families with a variety of housing needs. Accessory apartments/dwellings have filled these needs in the past and continue to do so today. A number of accessory dwelling units have been built in Belvidere to accommodate elderly or special needs family members, but are also in use by some adult children and/or grandchildren of the primary homeowner. Their further use will continue to be encouraged by adding no restrictions to their construction.

Although the vacancy rate for rental properties in Belvidere remains low, the most recent statistics available (2009 – 2013) show that median rental costs as a percentage of income

were at 24% and therefore remain more affordable than elsewhere in Lamoille County and the State of Vermont at 29.5% and 31.1%, respectively.

Some potential barriers to future home sales and optimization of existing structures are the presence of lead paint and “incomplete” plumbing or kitchen facilities which, according to the Vermont Housing and Finance Agency 2009-2013 statistics, exist in more than a dozen Belvidere households, some of which are important historical town structures. These are basic quality of life issues for residents and the Belvidere Planning Commission encourages remedial action where appropriate.

The Town of Belvidere is pleased and proud that it has maintained the ability to provide a number of avenues for quality, affordable housing. In addition to affordability, life quality is enhanced through nature, recreation and a true sense of community. Belvidere encourages housing and business developments that lessen the impact on natural and fragile resources.

Goals

- Monitor growth patterns as measured by increase in properties on the Grand List.
- Utilize lead abatement/plumbing improvement programs to improve local historical structures and to reduce number of affected residential structures
- Maintain Belvidere’s affordable cost of housing by encouraging developments that do not require large public investments to infrastructure or services

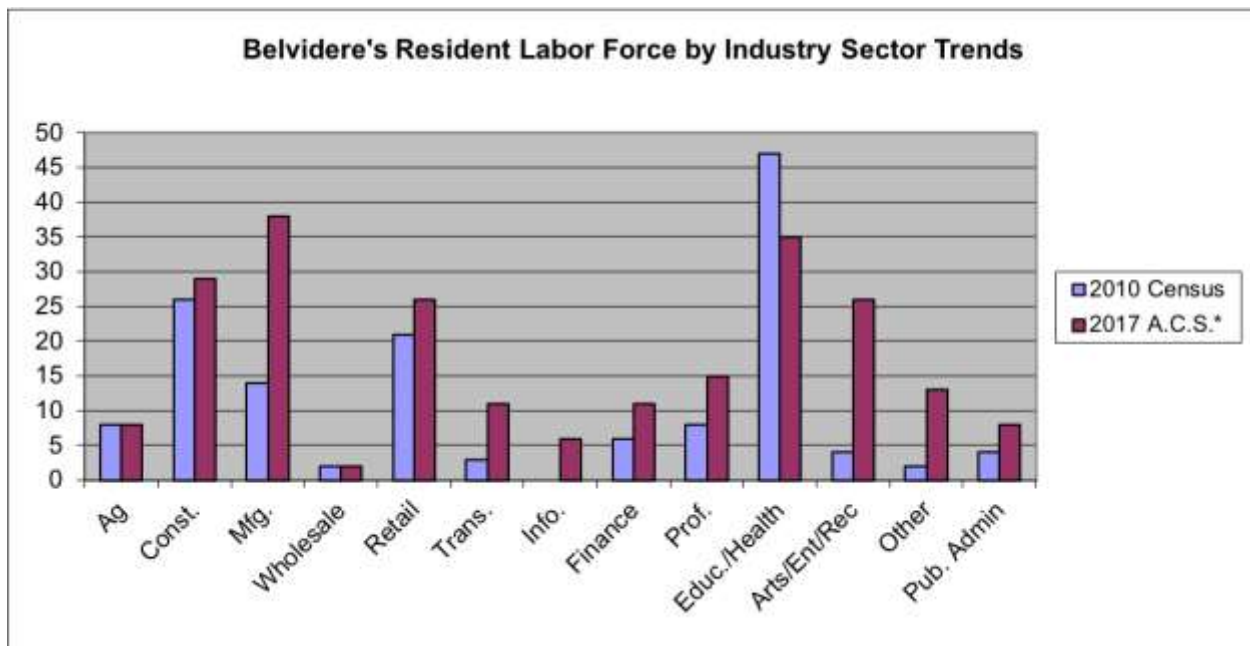
Action Items

- Identify tracts of land that would be suitable for the types of developments outlined herein
- Communicate programs available for plumbing improvements and lead abatement to affected residents
- Investigate existing subdivision regulations for “tiny house” communities in other areas for possible adoption by the Town
- Inquire as to the possibility of becoming a remote outstation for ambulance/hospital service

CHAPTER 9: ECONOMIC DEVELOPMENT

The economy of Belvidere has historically been tied to its resource base. Initially, agriculture, forestry and mining dominated the town's economy. Except for the occasional wanderer panning for gold in local waterways, mining no longer exists in the area. Silviculture and related support activities still employ a comparatively large number of people in town with at least four local businesses conducting logging and/or related activities.

In more recent years Belvidere has become a "Bedroom Community" with 67% (2019 Survey) of Belvidere's workforce commuting an average of over 38 minutes for their employment. This is a great improvement over figures from previous censuses when greater than 90% of Belvidere's workforce was employed outside the town. Factors for the improvement likely include an increased ability to work from home, higher demands on the construction trades, a renewed interest in the arts and traditional jobs in both the agriculture (predominantly the maple industry) and silviculture industries as reflected in the chart below.



*Figures from the American Community Survey have extremely large margins of error and may not accurately reflect trends.

Belvidere provides an excellent example of a town that is maintaining the type of economic activity that is appropriate for the community. The Town embraces the continued expansion of existing silviculture, agriculture and other, traditional Vermont

industries which are well suited to the local geography and both State and local land use preferences.

Agriculture in Belvidere is primarily maple production, but a new member of the Vermont Farm to Table Network is in Belvidere providing locally grown meat. Local maple businesses range from hobby size operations to large commercial producers with several thousand taps and state-of-the-art boiling and collection equipment. Although exact numbers are not available, there are known to be well over 100,000 trees being tapped in town with increases each year. These recent expansions in the agricultural sector are in keeping with the goals outlined in the State of Vermont's Comprehensive Economic Development Strategy.

The Town would like to benefit from State programs to encourage remote workers to choose Vermont as their home, but limited availability of communication technologies makes this difficult. High-speed internet is available, but frequent service interruptions occur. Cell phone service in the area is achieved through the use of personal micro-boosters only. Improvements to these services are not only a priority for Belvidere, but have become a major focus for the State of Vermont and the Nation.

Size and scope of business in Belvidere is also limited due to lack of existing infrastructure. Three phase power is available at Belvidere Corners, but significant investment would be required to bring the lines to most sites in town. The Town of Belvidere has no public water or wastewater infrastructure which would require any new development to provide their own services in keeping with local and state requirements. In addition, Belvidere is 28 miles from the nearest interstate highway making transportation of incoming raw materials and finished products more difficult and costly.

The 2017 closing of Belvidere's general store means that there is currently no retail business operation in the town. A 2018 Survey, conducted by the BPC, indicated that the reopening of the store was the number one priority of the residents who responded. Town officials, therefore, will support any efforts to re-open a general store in that same location and would encourage the new owners not only to hire from the local populous, but also to provide a retail outlet for locally produced art and agriculture products.

Act 194 of 2017 recognizes that industrial development is a key factor in the health of rural economics and provides incentives for many pre-development costs for rural industrial parks. In 2017 the Vermont Agency of Commerce reported that the average wage from manufacturing was over \$58,000 compared to \$46,186 for all other sectors combined. Although a small percentage of town residents report deriving their income from the manufacturing industry (2019 Survey), town officials have hopes that the

proposed industrial park in Johnson may provide opportunities for both higher incomes and lower commute times for some residents.

Additional opportunities include training available for employment in the expanding renewable energy sector as we move toward the State's 90/50 goal. Belvidere's logging and transportation companies are well poised to supply wood chips for any new biomass facilities in the area, and to supply materials to multiple local construction firms for weatherization upgrades and/or construction of new, energy efficient homes.

For over 60 years, on the second Saturday in August, Belvidere residents and visitors celebrate Old Home Day with a parade followed by music and activities on the field that is owned and administered by the Belvidere Community Club (BCC). More prominently, their field is the venue for the now famous "Rattling Brook Bluegrass Festival" held every June. The BCC has also successfully negotiated use of their field with local bicycle tour companies as well as renting out the facilities for a number of private events throughout the year. Town officials are exploring opportunities for the BCC to host an autumn craft fair showcasing Belvidere artists, artisans and producers with the goals of enhancing existing businesses and encouraging similar, new businesses in town.

Some of the artisans and producers in Belvidere are members of the town's active and involved senior community. Almost half of the town's 2019 survey respondents indicated they were retired or planning to retire within 5 years. According to the 2018 Vermont State Plan on Aging, Vermont's population is already the "2nd oldest" in the nation and by 2030 more than 1 in 4 Vermonter's will be over 65. Belvidere's vision for the future is to help fulfill this demographics' needs by encouraging development of an affordable housing community for active seniors. If necessary, services could be negotiated for an assisted living or long-term care facility. Such development would provide local jobs in the fields of construction, real estate/rental, transportation, maintenance, health care and other services. The additional population would provide increased revenue for a general store in town.

The Belvidere Planning Commission's 2019 survey had only one of 27 (3.7%) respondents identifying as unemployed reflecting the low statewide unemployment rate.

As Belvidere moves toward the future the Town will encourage continued participation in the traditional industries while embracing the future by helping to provide the technologies required for remote workers and by working toward increasing the availability of the quality, affordable housing so greatly needed by our aging population.

Goals

- Acquire cell phone service and improved broadband service
- Support re-opening of local general store/gas pump at the current location
- Expand marketing/sales opportunities for producers of maple and locally made goods
- Provide residents with up-to-date information about training programs available in expanding fields
- Work to position Belvidere businesses as sources for future potential bio-mass materials and transportation

Action Items

- Meet with BCC about potential autumn craft show and other opportunities at existing festivals
- Support the CUDs endeavors in broadband expansion
- Research development of cell phone coverage
- Research/participate in County/State/Federal and other programs that become available for technology additions/improvements
- Explore future opportunities in renewable energy sector for local logging and transportation companies
- Investigate State training programs and make information available to town residents

CHAPTER 10: TRANSPORTATION

Transportation systems within Belvidere consist of 24.24 miles of roads, bridges, and culverts. The town seeks to integrate with other forms and modes of human circulation within and beyond its borders such as mass transit, cycling, pedestrian, and air travel. The town maintains roads in such a manner that the needs of the public are met without unreasonable demands on local tax revenues from property owners. Of note, the highway costs are consistently one of the largest municipal expenses.

During the last five years, the municipality, under the direction of the Selectboard and in conjunction with regional and state experts, has completed many improvements to roads, culverts, and bridges within the town. The town intends to continue such budgeted bridge and road improvements in accordance with “town road and bridge standards,” as described in the Orange Book, and to follow Municipal Road General Permit regulations, hereafter MRGP.

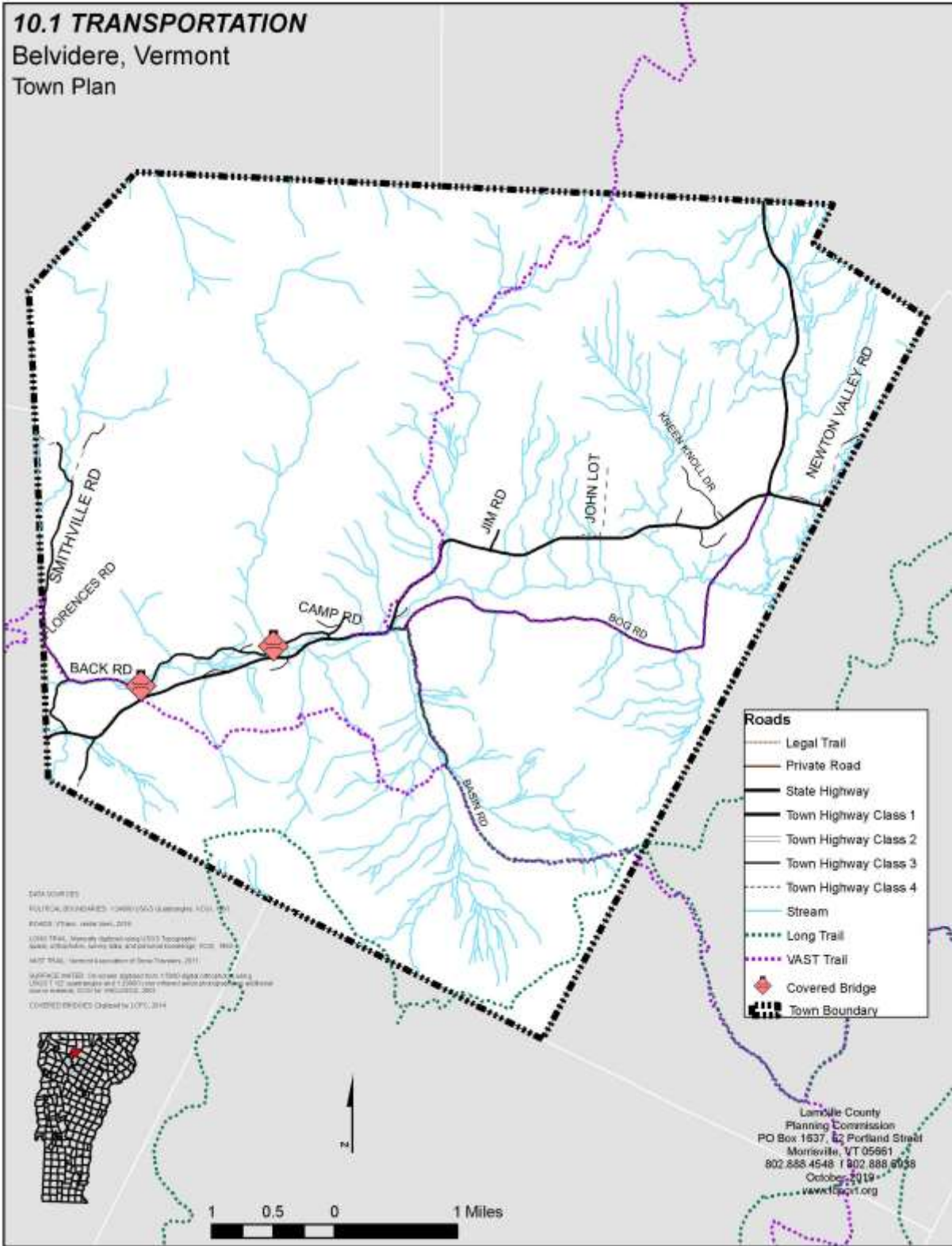
Highways

Vermont’s local roads are classified according to their importance and general use. This classification system applies to all town highways, and it is used to determine the amount of state highway assistance provided to each community. Class 1 roads are extensions of the state highway system and carry a state highway route number. There are two such roads within the bounds of Belvidere: Route 109 and Route 118. Class 2 roads are important as corridors between towns; however, Belvidere lacks any. There is a network of Class 3 roads, most of which are passable year-round by standard vehicles. In addition, there are several Class 4 roads which are functional for only part of the year. (See Table B which illustrates town highways in Belvidere along with their classification and length.) The highways are also shown on the Transportation Map 10.1.

Table B.

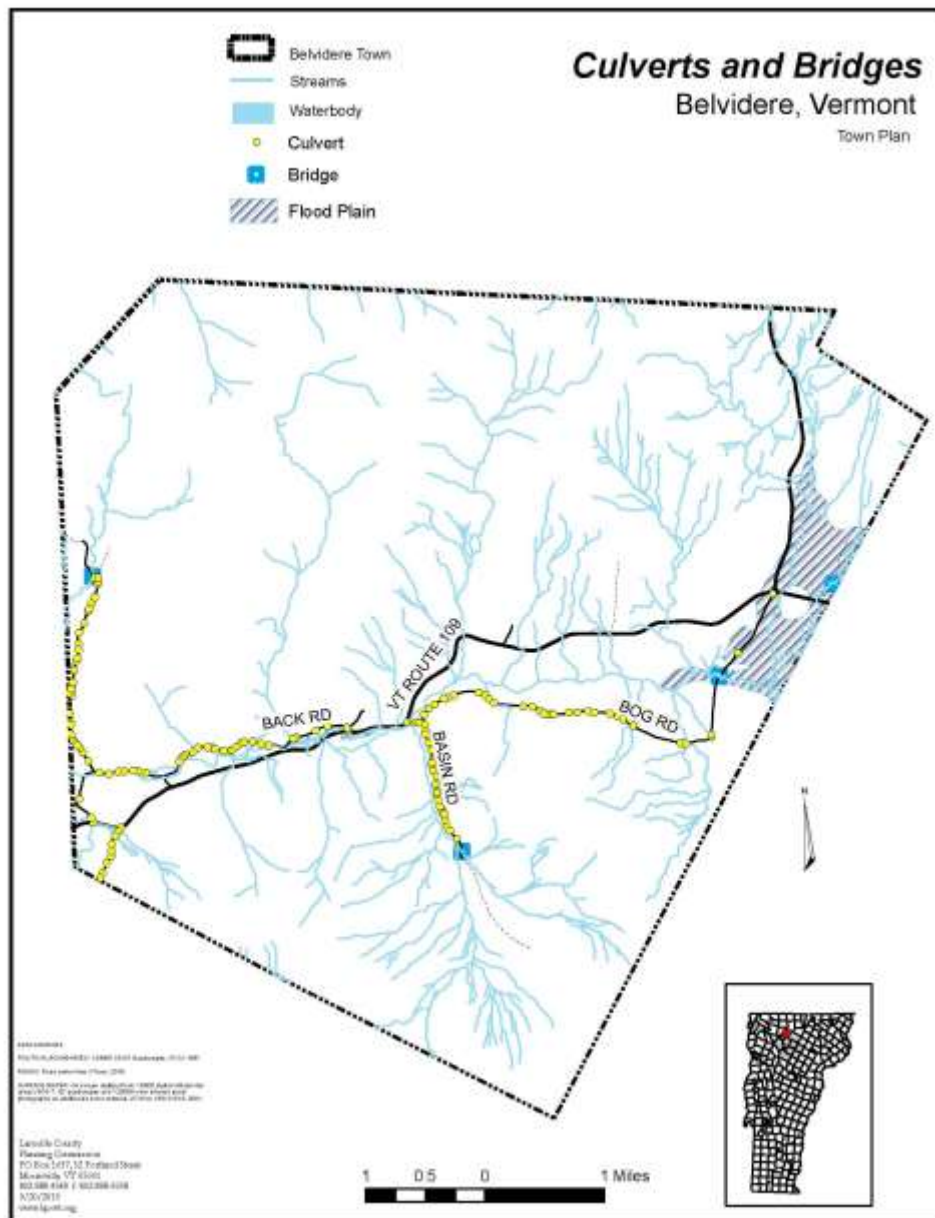
	Class	Class	Class	Class	Total Local Miles	Total
	I	II	III	IV	(excl Class IV)	State
Total Mileage	0	0	11.75	2.76	11.75	9.73

10.1 TRANSPORTATION
Belvidere, Vermont
Town Plan



Bridges and Culverts

The town has worked with the Lamoille County Planning Commission to inventory and note the condition of all of the culverts and bridges in town. See Culvert Map of Belvidere. This helps the town establish a schedule to repair and maintain structures over time. In the last few years Belvidere has taken advantage of the state's Better Roads Program (BRP) and received grants for road and culvert repair on Florence's Road and Smithville Road. There is work planned for other structures in town.



Bridges are expensive to maintain over time. Whenever possible, new highway construction should minimize the number of bridges and/or culverts needed in order to minimize long term maintenance costs. A large culvert replacement project near the intersection of Bog Road and Route 109 was completed in 2020, and was largely reimbursed with a grant from FEMA.

Airports and Rail

The closest airport service, the Morrisville/Stowe State Airport, is located in Morristown. Regular commercial airport service is available at the Burlington International Airport in South Burlington.

The Lamoille Valley Railroad, long being out of operation, has had most of the road bed converted into recreational rail trails. The nearest operating rail passenger service, AMTRAK, is available in Waterbury-Stowe, St. Albans, and Essex Junction.

Recreation and Non-vehicular Transportation

Snowmobile ATV and UTV Guidelines

The Vermont Association of Snow Travelers (VAST) maintains a network of snowmobile trails on private and public lands across the state including areas in Belvidere. (See Transportation Map 10.1.) The trails are maintained and groomed by volunteers and provide a link in a statewide recreation network. The trails are also available for cross country skiing for those who abide by the organization's rules, which require yielding to snowmobiles.

Currently, the use of ATVs is authorized on all town roads provided that each driver has an operator's permit, issued by the town on their person, and each driver operates an ATV only in accordance with VSA22, 3501-3517. For more information see the Vermont ATV website, VASA.

The Long Trail

The Long Trail is a statewide hiking trail network that extends the entire length of Vermont from Massachusetts to Canada. A portion of the trail is found in Belvidere along its southern border contiguous with Johnson and along its eastern border with Eden. The LT provides hiking and recreational opportunities at Laraway Mountain and on other Long Trail State Forest land.

Bicyclists and Pedestrians

Most of Belvidere's local roads were designed with automobiles and trucks in mind. As cyclists, both individuals and groups, use these roads, conflicts can arise from lack of

travel space and poor road shoulders. Future road projects, particularly by the State on Routes 109 and 118, should be designed to give greater consideration to non-motorized users by adding wider shoulders. This would, in addition, benefit local residents and visitors walking along the highways taking in the natural beauty of the town. Recently, along popular walking locations, such as Back Road, Bog Road and Florence's Road, signs have been posted to warn drivers to slow down in neighborhoods where children reside. The Selectboard is in the process of adopting local speed limit ordinances within the town which will allow for enforceable posting of speed limit signs on town highways.

Additional information on recreational activities in Belvidere can be found in the Natural Resources chapter.

Transit Services

Currently there are no public transportation services in Belvidere. Taxis are available from Morristown and Hyde Park. Uber and Lyft are present in Johnson and Jeffersonville. Also, there is a local designated driver service available in the greater Cambridge area. One option for public transportation is RCT, Regional County Transportation, which is available for hire and also for transport of those who meet certain requirements because of medical conditions. They can be reached at 802-748-8170. In addition, residents of Belvidere can drive to various park and ride locations to share rides or take buses.

Additional Human Service Transportation

There are also numerous human service organizations in Lamoille County that provide assistance to Belvidere residents. Most of these services are operated by utilizing full-size vans and some volunteer drivers in cars. Below is a partial list of the organizations and for more information about their services, visit their websites.

The Central Vermont Council on Aging transports elders to healthcare, shopping and community programs. They also transport meals to residents in their homes through funding of the Meals on Wheels program for Lamoille County.

Lamoille County Mental Health (LCMH) provides rides for clients between their homes and the region's treatment and activity centers.

Vocational Rehabilitation (VR) provides services to clients with disabilities that create barriers to employment. The VR program works to relocate individuals and provide transportation so that they can work in the community. VR also serves as an advocate of local and regional transportations planning.

Out and About is an adult day care program in Morrisville providing transportation for clients so that they gain access to and from their homes to the day center. They can be reached at 802-888-7045.

Lamoille Neighbors is a new organization as of 2019 that operates in Stowe and Hyde Park with Johnson to be added soon. There might be a connection to Belvidere in the near future. See their website: lamoilleneighbors.org

A second new organization is Green Mountain Support Services which “serves the aging population and individuals 18+ with a physical disability.” For more information see their website: www.gmssi.org.

Go! Vermont, a recently formed organization that provides transportation service, can be contacted at Connectingcommuters.org.

Some of the above organizations currently contract with the RCT to provide the majority of transportation services they offer. RCT is based in St. Johnsbury with a satellite office in Morrisville and it coordinates the statewide Rideshare and Vanpool Programs in Lamoille and the surrounding counties. LCMH offers additional services beyond the contracts with RCT. The RCT along with GMT is currently going through a restructuring process to streamline transportation services.

Goals, Policies, and Recommendations

Overall Statement

As highways are used by everyone in the community and are typically the second most expensive service, their continued management and maintenance are critical to the town. The roads are in good condition and the budgets have been kept low. The town should continue to work with the regional planning commission and other organizations to ensure transportation services provide assistance to residents in need of help.

Goals

- Belvidere should manage and maintain town roads to be in safe and good condition while following cost effective guidelines.
- All forms of transportation, vehicular and non-vehicular, should be balanced, and integrated where feasible.

- Belvidere should continue to work with the regional planning commission and other organizations to ensure transportation services continue to provide assistance to residents in need of help.

Policies

- The state highways should have limited road accesses to allow for smooth and safe travel into, through, and out of town.
- New driveway accesses need to be permitted in accordance with state and local regulations.
- Any new or upgraded public road should be built to town road standards which adhere to the Orange Book, Vermont Town Road and Bridge Standards, and to MRGP guidelines.
- Belvidere supports efforts of regional organizations to provide transportation service to residents in need of assistance.

Recommendations

- The Selectboard should continue its efforts to work with regional and state experts to stay current with the needed road, bridge, and culvert repairs in Belvidere and should continue efforts to apply for available grants to mitigate budget expenses.
- The Selectboard should monitor road, bridge, and culvert conditions to establish maintenance and repair priorities.
- The town may consider long term possible locations for a Park & Ride site if the need arises.
- Encourage pedestrians and cyclists who are residents or visitors to travel the highways of the town and enjoy the beautiful natural surroundings.
- The Town should continue to appoint a municipal representative to the Lamoille County Transportation Advisory Committee to coordinate transportation planning, road maintenance and improvements with adjoining towns and to ensure that the interests of the town are adequately addressed by the region and state.

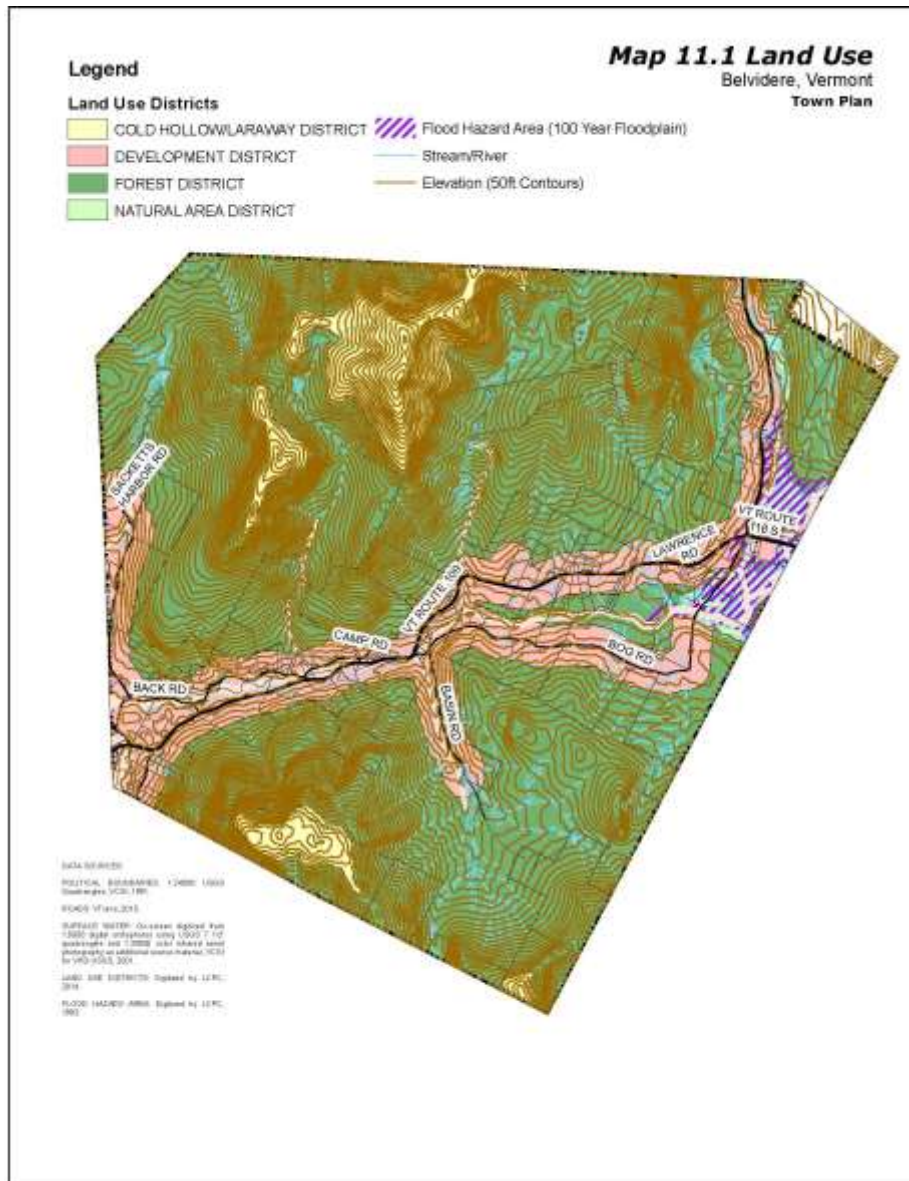
CHAPTER 11: LAND USE

Belvidere's pristine natural resources are among the town's greatest assets. To ensure their continued existence and protection, it is important for the town to describe and celebrate these resources as well as plan for their long-term care. These resources have multiple functions beyond their simple beauty. They provide wildlife habitat and corridors, healthy forest blocks, flood control, a filter for pollutants, a cooling effect, recreation, economic activity, and possible carbon offsets. (See Natural Resources and Economic Sections) In truth, Belvidere has some of the largest tracts of un-fragmented forests in the state and therefore, is uniquely placed to protect biodiversity.

Through the Land Use section of this town plan, Belvidere intends to achieve five objectives:

- Protect its soil, forests, water, and wildlife habitats, valuable assets for economic and recreational uses.
- Encourage development that maintains Belvidere's historic tradition of allowing respectful public access to private forested blocks for recreation.
- Guide development such that provision of school services, road maintenance, and emergency services does not put an undue tax burden on Belvidere property owners, possibly forcing existing inhabitants to leave their homes because of excessive property taxes.
- Encourage land use pertaining to Belvidere waterways, land, and roadways that follows directives from FEMA and Vermont's "Clean Water Act".
- Discourage development of land that is unsuitable because of excessive slope, fragile soils, potential contamination of water supplies, destruction of wildlife habitats and fragmentation of forests, and elimination of land best suited for agriculture.

To achieve these goals, this plan sets forth four districts: The Development District, The Natural Areas District, the Forest District, and the Cold Hollows/Laraway District. Within each of these districts, the areas are described and specific goals are presented. These districts are delineated by elevation, slope, and pre-existing character. Map 11.1 Current Land Use shows the approximate boundaries of the designated Land Use Districts.



The Development District

Description

The Development District shall be defined as all land within 1000 feet of a class 1, 2, or 3 road that does not lie within the Natural Area District. This includes approximately 3,914 acres or 17% of town land, and identifies areas where industrial, commercial, and residential growth are encouraged.

Purpose of District

Belvidere believes in reasonable, incremental, affordable growth, and by identifying the Development district, this plan will achieve the following benefits for residents:

- allow our sons and daughters to settle in town
- provide employment for residents
- encourage agriculture on suitable land
- encourage new enterprises and businesses to locate in town, in areas close to existing road infrastructure

Present Land Use

This district is presently used for forestry, wildlife habitat and connectors, commercial agriculture in the form of maple production and small-scale farming, gravel extraction, recreation including privately-owned athletic fields and an outdoor pavilion, residences, churches, municipal buildings, and a town cemetery.

Proposed Land Use

This district should continue to support the uses stated above. Within the Development District, future land uses should be based on specific site considerations, limiting development to land that is less than 30% slope, and having soils that can support the proposed activity, while preserving water quality and wildlife habitat.

Recommendations for Implementation

Belvidere believes in allowing property owners to reasonably manage activity on their own land, and for residents to live and prosper in our town. In addition, Belvidere promotes the constitutional rights of its residents to acquire, possess, and protect property. Therefore, this plan proposes that land use be loosely, although reasonably, regulated within the development district. Belvidere has chosen to specify general guidelines rather than detailed regulations (or Zoning), encouraging cooperation among our town's residents and property owners toward the common development goal of maintaining and enhancing the small community character of our rural Vermont town.

Why Belvidere Lacks a Specified Downtown District

Belvidere recognizes that economically strong downtowns are important to the health and well being of Vermont's communities (Statute 76A), and that they are a natural location for small businesses and institutions that make up the fabric of communities. However, the State planning goal of creating compact residential and commercial development in a single town center is an unrealistic application because of Belvidere's geophysical limitations. The town is nestled in a narrow mountain gap between the Laraway and Butternut Mountain Range to the south, and the Cold Hollow Mountains

to the north. Existing in this narrow river valley, bordered by steep mountains, has led to Belvidere's historic settlement pattern of a central village, known as Belvidere Center, flanked by two smaller clusters located at the town boundaries: Belvidere Junction on the west end of town, and Belvidere Corners to the East.

These three distinct parts of town are separated by rural countryside that meanders along Vermont State Highways 109 and 118, and the North Branch of the Lamoille River. Of the three, Belvidere Center has historically been the largest, with the town's municipal and school facilities, local grocery store (currently closed), and two churches located therein. This part of town also includes the Belvidere Community Field (owned and operated by the Belvidere Community Club) and the Belvidere Cemetery, as well as about a dozen single-family residences. Public services include street lights and a dry hydrant for fire protection.

Two miles away, in Belvidere Junction there are a church and a few historic homes. Five miles to the east of Belvidere Center, at the Junction of Vt. Rtes. 109 and 118, and the town highway known as the Bog Road, lies Belvidere Corners. The Corners is another settlement of homes clustered along the highways just mentioned. Because three-phase electrical service exists in this part of town, commercial and light-industrial development is encouraged here.

Development Guidelines Following Belvidere's Historic Settlement Pattern

The Town of Belvidere intends to meet State planning goals in accordance with 24 VSA 4302, developing the character of our town toward a common goal, while maintaining Belvidere's historic settlement pattern of three distinct town centers, rather than a single compact center. The Belvidere Planning Commission also intends to participate in any Act 250 action related to development within the town. Planning the orderly development growth of the town is essential, and should be factored into Belvidere's capital budget.

To Achieve the Town's Development Goals, this plan:

- Encourages economic growth, and supports a diversity of viable businesses and mixed-use development within the three existing town centers at a scale that enhances the community
- Supports cluster housing that meets the needs of diverse social and economic groups (See Housing Section), as well as individual domiciles around the three village centers

- Supports efforts to continue farming and forestry activities within the development district
- Stresses the balance of growth with the availability of economic and efficient public utilities and services, and access to public highways (recognizing that highway frontage is limited in Belvidere). Development should also enhance transportation options, especially for pedestrians
- Recommends compliance with VT Department of Environmental Conservation regulations for potable water, thereby determining the ability of the land to accommodate on-site sewage disposal and to avoid water contamination
- Recommends compliance with Belvidere’s Flood Hazard Bylaws based on 2019 FEMA maps and associated guidelines (See Natural Resources Section), and consideration of significant flooding (fluvial, flash, or pluvial) incidents in Belvidere’s floodplains and waterways, based on current FEMA maps
- Recommends limiting housing density to four units or less per acre to protect water supplies and sewage infrastructure
- Discourages strip commercial development along transportation corridors
- Discourages development that cannot be supported because of the capability of the land as it relates to topography and soil limitations, i.e.: areas of steep slopes (greater than 30%), and soils that are poorly drained, shallow, or unstable
- Discourages development in areas with identified fragile characteristics such as high elevations, wetlands, floodplains, threatened and endangered species habitats, deer-wintering yards, and wildlife connector areas.
- Discourages development that fragments agricultural and forest lands.

Continued use of land for agricultural purposes, as well as efforts to protect open space are encouraged. (See Natural Resources and paragraphs above). Agricultural land within Belvidere’s Development District is best suited for small-scale farming. Currently two farms totaling a combined 40 acres, are in agricultural use, and at least nine tracts of forestland are being used for commercial maple sugaring, with more large tracts of forest being added each year, along with the construction of sap storage and processing facilities within access of the town and state highway systems. Maple production is an important form of agriculture for Belvidere and the region, and employs several local residents seasonally. Since much of Belvidere’s land is forested, the recent rapid growth of maple production is becoming the dominant form of agriculture and commerce in town, reminiscent of Belvidere’s logging and lumber mill history dating back to the turn

of the twentieth century. These sugaring operations contribute to the present character of the town. (6 VSA, 8).

This plan encourages the use of locally grown food products, and supports the use of local stores to market locally grown food. Within Belvidere's Development District, local food production is primarily limited to cottage industry and private gardens. The closest Farmers' Market is twenty minutes away in Jeffersonville, and Community Supported Agriculture (CSA) farms are located in Cambridge, Jeffersonville, and Johnson.

This plan supports the Use Value Appraisal for those working landscapes within the Development District.

In certain cases, a specific development project might receive modification of this plan's recommended limitations if it is deemed that the project has merit, follows the intent of the plan, and enhances the town.

The Natural Area District

Description

The Natural Area District shall be defined as the area commonly known as Belvidere Bog plus a 100 foot buffer, associated wetlands with a 50 foot buffer, endangered species sites with the state 200-meter buffer (approximately 650 feet), and the flood area lying generally east of Route 118 and extending south and west down the North Branch of the Lamoille River to its confluence with Otter Brook (see Land Use District Map 11.1 and Water Resources Map 4.9). This district includes approximately 572 acres or 2.5% of town

The Purpose of this District

The Belvidere Bog and associated wetlands and floodplains form a fragile and important natural resource. There is a second fragile area up in the Cold Hollows. The Natural District is designated to preserve these habitats for scenic, scientific, educational, wildlife protection and recreational value as well as to serve as a natural filter for potable water.

Present Land Use

This District is primarily undeveloped and provides habitat, breeding grounds and nesting places for migratory fowl, habitat for other wildlife, and a natural environment for protected flora. Several parcels within the Natural District are owned by the State of Vermont, the Nature Conservancy, and the Vermont Land Trust.

Proposed Land Use

This plan designates the Natural District to exist in its natural state as much as possible. The district encompasses a Class II Wetland as designated by the Vermont Agency of Natural Resources and is subject to the rules and regulations of this designation.

Additionally, Belvidere's town plan recommends the following guidelines:

- No permanent buildings within the Natural District, except those structures present as of this district's designation in August 2000.
- No commercial or industrial facilities within the Natural District, especially those that may have an adverse effect on the natural district or the town of Belvidere.
- No new roads or other construction that could disrupt natural habitats

Recommendations for Implementation

Belvidere's town plan supports the preservation of the Natural District areas that provide significant habitat and connectors for wildlife, and areas with rare or protected vegetation.

In order to preserve these habitats without the unfair infringement on property owners' rights, this plan recommends the purchase and preservation of privately owned land that falls within the Natural District. These purchases could be made either by private interests, the Town, or by the State of Vermont, and be managed through the Agency of Natural Resources. Due to regional and statewide significance of the area, this plan recommends that the State would be the appropriate agent to ensure the long-term preservation of this resource. Development rights on a wetland area north on Route 118 were recently purchased by the Vermont Land Trust for long term preservation. The piece includes the headwaters of the North Branch running south and of Tyler Brook running north.

Repairs and maintenance on Town Highway #8 "Bog Road", which runs through part of the Natural District, must comply with Vermont's "Clean Water Act", specifically the regulations set forth in the Municipal Roads General Permit, or MRGP.

The Forest District

Description

The Forest District shall be defined as all land within the Town of Belvidere that is below 2500 feet in elevation, is greater than 1000 feet from a class 1, 2, or 3 road, and is not located within the Natural Area District (see the Land Use District Map 11.1). This district includes approximately 16,640 acres or 73% of town.

The Forest District includes parts of the Long Trail, state forest areas, privately conserved lands, privately held timber company acreage, privately held sugaring operations, and VAST trails. Recently, Nature Conservancy purchased 50 acres in the northeast corner of Belvidere as part of the Burnt Mountain Preserve, which extends into four other towns as well.

Purpose of District

This plan encourages the conservation of our town's forest resources and the use of responsible forest management practices, such as those defined by the State of Vermont Accepted Management Practices (AMPs). To achieve this, the Planning Commission designates the Forest District to include those areas best suited for timber management, and are not well suited for development due to remote locations, steep slope, and fragile soil conditions. Much of the town forests are classified as high priority by the state. The map of forests indicates those areas "identified by the State, the regional planning commission, or the municipality that require special consideration for aquifer protection; for wetland protection; or for the maintenance of forest blocks, wildlife habitat, and habitat connectors; or for other conservation purposes." For more information see Act 171.

Present Land Use

Most of the land within this district has been forested long before the mid-18th century settlement of the town of Belvidere. It provides valuable habitat for wildlife, and a watershed that feeds into our streams and rivers. Historically, Belvidere's Forest District has provided significant employment for area residents, and income for property owners. In addition, the forestlands provide excellent opportunities for year-round recreation. The numerous camps and seasonal visitors attest to this fact. Belvidere is renowned for the "wilderness" character of our forested land.

Proposed Land Use

This plan encourages the continued use of the Forest District as described above; i.e.: responsible forest management to generate income, provide wildlife habitat, protect watersheds, and foster outdoor recreation.

Specifically, within the Forest District, Belvidere plans to:

- Encourage the private, pre-commercial, and commercial use of its forestlands for sustainable forestry and maple sugaring
- Recommend limiting road construction to what is necessary to support only forestry and sugaring purposes, and that Accepted Management Practices (AMPs) for this type of road-building be followed

- Encourage Belvidere’s historic tradition of allowing respectful public access to private forested blocks for recreation
- Limit the structures within this District to rustic hunting camps having occasional use throughout the year.

Recommendations for Implementation:

Land uses that conflict with commercial forestry, such as residential or commercial development, are not encouraged. Development within the Forest District diminishes, or irreversibly changes, the district’s ability to be used for forestry. Considering that America’s population continues to increase, land throughout the country maintained for forestry, agriculture, protection of potable water sources, and wildlife habitat becomes a more valuable resource necessary for the country’s survival. Therefore, this Town Plan recommends protecting and preserving Belvidere’s large unfragmented forests for future generations.

Currently Belvidere landowners who qualify may participate in the Vermont State Use Value Appraisal of Agricultural and Forest Land, an effective means of easing the property tax burden on forest and agricultural land owners, thereby maintaining forestland for its intended use under this plan, instead of being sold for development. Furthermore, this plan encourages Belvidere landowners to participate in forest improvement incentive programs such as those provided by the Natural Resources Conservation Service, and the Vermont Department of Forestry Current Use program to mitigate the burden of taxes on landowners.

A long-term solution to conserve our working landscape would be the purchase of development rights from landowners in the Forest District. By selling development rights, the landowner continues to own and manage the land, but is no longer permitted to develop the land for commercial or residential purposes. These development rights may be owned locally, by the state, or by private non-profit organizations. Landowners benefit by receiving money from the sale of the development rights, as well as gaining a lower Grand List appraisal, and consequently a reduction in property taxes.

Several large parcels have transferred ownership recently to private land preservation organizations: Burnt Mountain to NC and development rights on the Brown parcel on the Belvidere and Montgomery border to VLT.

The Cold Hollow/Laraway Mountain District

Description

The Cold Hollow/Laraway Mountain District is defined as those areas in town that exceed 2,500 feet in elevation (see Land Use District Map 11.1) This includes approximately 1,691 acres or 7% of the town.

This district recognizes Belvidere's highest elevations as fragile environments that are characterized by fragile soils and slopes greater than 30%. Although the area in this district is forested, it is not appropriate for timber management due to the high risk of soil erosion and slow regeneration of vegetation after clearing. This plan encourages the preservation of these natural areas to provide important wildlife habitat and connectors, to mitigate erosion, and to maintain water quality downstream.

Purpose for the District

This District encourages the preservation of these fragile, high elevation habitats.

Present Land Use

This District is nearly pristine and almost entirely forested. There are no Act 250 permits allowing activities in The Cold Hollow/Laraway Mountain District at this time.

Proposed Land Use

This District is designated to exist in its natural state. This plan recommends that The Cold Hollow/Laraway Mountain District not have any structures, roads, logging, or agriculture.

Recommendations for Implementation

In order to preserve these habitats without the unfair infringement on property owners' rights, this plan recommends the purchase and preservation of privately owned land that falls within the Cold Hollow/Laraway Mountain District. These purchases could be made either by private interests, the Town, or by the State of Vermont, and be managed through the Agency of Natural Resources. Due to regional and statewide significance of the area, this plan recommends that the State would be the appropriate agent to ensure the long-term preservation of this resource. So far, the parcels purchased for preservation were procured by Nature Conservancy and Vermont Land Trust.

Goals, Policies, and Recommendations

Accomplishing the Primary Goals of the Belvidere Town Plan hinges largely on the achievement of the Land Use District goals proposed in this section. The primary goals as discussed in Chapter 1 of this plan are restated here as relevant goals for this section:

- Guide development such that provision of school services, road maintenance, and emergency services does not put an undue tax burden on Belvidere property owners, possibly forcing existing inhabitants to leave their homes because of excessive property taxes.
- Encourage growth that will promote sound management and responsible business use of our town's natural beauty, wildlife habitat and migratory corridors, forests, and agricultural land.
- Encourage residential and commercial growth in suitable areas
- Direct land use decisions by local residents, rather than outside interests.

Belvidere's Town Plan is not intended to stop growth, but instead to guide growth, by identifying areas where growth is appropriate, while protecting and preserving the town's natural resources for long-term economic and environmental stability. This plan designates a Development District large enough that if only one house is built on every ten acres in the district (a low density for housing), there is enough land to double the number of houses currently in town, and abide by Act 250 directives without increasing town costs appreciably.

Belvidere encourages residents, old and new, to maintain the town's resource base, natural beauty, and historic character by working with local officials to achieve these goals.

Land Use Policies

- Prohibit development on slopes greater than 30%.
- Avoid fragmentation of productive agricultural and forest land, and wildlife habitat.
- Ensure water quality with all development, including the use of buffers for streams, rivers, and wetlands
- Compliance with Belvidere's Flood Hazard Area Plan
- Support land use decisions directed by local citizens rather than outside interests.
- Encourage appropriate new development that would increase the Town's tax base, local economy, and sense of community

Recommendations for the Land Use Section

- Provide informational maps that reference the four districts described in this section, to enhance public understanding of this plan's goals.

- Support the purchase of development rights and other land conservation methods that meet the objectives of this plan. Where possible, review proposed land purchases and comment on them based on the goals of this plan.
 - Engage the Belvidere Selectboard, Planning Commission, and regional and state organizations to review all Act 250 applications in our town.
 - Promote the fine arts as a means of enjoying our town's beauty.
 - Develop a working wildlife inventory for our town.
 - Initiate a Belvidere Historical Society that will conserve the legacy of our town's people and places.
 - Promote continued public access to forests and state land to enjoy Belvidere's natural resources. An example of this recommendation is creation of a Long Trail access on Laraway Mountain, near Belvidere Center, using town property surrounding the Belvidere Center School, and easements from neighboring landowners.

CHAPTER 12: IMPLEMENTATION PLAN

Recommended Plan of Implementation 2020-2028

This plan was developed with three overall goals in mind. They were discussed in Chapter I Objectives and are as follows:

- I. To control the growth of the town in such a way as to enable residents to continue to live in Belvidere without an undue tax burden.
- II. To encourage growth of the town in such areas and under such conditions that the demand for increased services will not significantly raise the tax burden for existing residents.
- III. To regulate growth so that:
 - Areas of natural beauty and wildlife habitat are not adversely affected but rather enhanced, encouraged, and maintained.
 - Timberland management is economically feasible in the wooded area.
 - Agricultural use of land is encouraged and protected.
 - Residential and commercial growth is permitted in suitable areas.
 - Land use decisions are directed by residents and not outside interests.
 - Energy generation plans of Belvidere, neighboring towns or the region do not diminish the value of Belvidere's natural community and its inherent value.

Implementing the Program

In order to be successful in achieving the objectives of the plan, Belvidere has adopted a few programs. Planners many times refer to these programs as tools. No single planning tool can be used to achieve all of the goals and policies of this plan. The tools Belvidere has adopted at this time include:

- Flood Hazard Area Zoning- These bylaws were updated in 2017 to protect the health, safety, welfare, and property of the public in areas prone to flooding.
- Participation in Act 250- Both the Selectboard and Planning Commission are allowed to participate in the approval process of any project requiring Act 250 approval.

Belvidere has not adopted but could adopt:

- Zoning to manage the impact of specific uses of land, the size and dimensions of structures, setback and yard requirements, and the density or intensity of uses.
- Shoreland bylaws- to protect water quality within 500 feet of lakes and ponds.

- Subdivision regulations to regulate the creation of lots and to ensure efficient development of public or semi-public facilities such as utilities, roads, water, and wastewater systems.
- Conservation efforts through which the town could create a conservation commission or partner with a statewide organization to coordinate the purchase of properties or development rights of certain properties.

The Planning Commission will need to review the various options in town to decide which tool, or tools, is appropriate for the situation. Various recommendations have been made throughout this plan and are listed below. Each of these recommendations will need to be discussed further to weigh the costs and benefits of each option.

How This Plan Relates to Neighboring Towns’ Plans and the Regional Plan

Copies of the proposed Belvidere Town Plan have been submitted to all neighboring towns and the Regional Planning Commission. Belvidere is a rural town with a small population. This plan proposes no radical changes in present land use, nor are there significant changes in land use districts. In light of this fact and from our review of adjoining town plans we feel no substantial conflicts exist.

The Lamoille County Regional Plan is based on the principle of local control. Nothing in the 2020 Town Plan for Belvidere is expected to be in conflict with the regional plan or will have a negative effect on any future implementation of the regional land use plan. The Belvidere Planning Commission and Lamoille County Planning Commission agree to work together to address any concerns they may have.

Implementation Plan

The following charts are the proposed plan of implementation for the Goals and Objectives of Belvidere as listed on page 4 of this plan. These recommendations are a compilation of goals and recommendations presented throughout this plan. Throughout the section that follows BPC means Belvidere Planning Commission and SB means Select Board.

Section: Population and Growth

GOALS:

- Guide development such that provision of school services, road maintenance, and emergency services do not put an undue tax burden on Belvidere property owners, possibly forcing existing inhabitants to leave their homes because of excessive property taxes.
- Encourage appropriate new development that would increase the Town’s tax base, local economy, and sense of community.

Recommendations	Type of Action	Who is Involved?	Timeframe
If the number of persons moving into Belvidere becomes a major issue over the next eight years, the town should consider adopting growth management tools, such as subdivision regulations.	Monitor	BPC	Ongoing
The Planning Commission should review and amend the 'Future Population Predictions' information as new population data becomes available.	Monitor	BPC	At minimum, once every eight years in association with the municipal plan update.
The Town should review the annual population estimates released by the VT Department of Health or U.S. Census to ensure growth rates are within the town's expectations.	Monitor	BPC	Annually. See 'Populations & Housing Estimates' Brochures released in the fall of each year.
The Planning Commission should review all 'Act 250' applications for their impact on the town's growth rate and participate in the 'Act 250' process to ensure the concerns of the town are addressed.	Regulation	BPC	Ongoing

Section: Historic, Archaeological, and Scenic Resources

GOALS:

- Preserve Belvidere's heritage and beauty for current and future generations.
- Record and preserve the history of Belvidere.
- Preserve individual buildings, structures and areas of historic value, including archaeological sensitive areas.
- Conserve scenic resources and areas without excessive infringement on property owners.

Recommendations	Type of Action	Who's Involved?	Timeframe
Support the creation of a local Historical Society.	Non-regulatory	SB, BPC	n/a
Maintain a comprehensive listing of historical structures and sites in Belvidere	Monitor	BPC	Ongoing
The Planning Commission should review all 'Act 250' applications for their impact on the historic and scenic resources in town and participate in the 'Act 250' process to ensure that the concerns of the Town are addressed.	Regulation	BPC	Ongoing

Section: Natural Resources

GOALS:

- To use Belvidere's earth resources conservatively for the benefit of existing and future generations and to conserve and enhance the agricultural and forestry soils in town today.
- To preserve or improve Belvidere's water resources, including its ponds, streams, rivers, wetlands, groundwater, and associated habitats in order to ensure water quality for drinking, recreation, and the environment.
- To protect and maintain the healthy ecological conditions of natural areas, including wetlands, uplands, and critical plant and animal habitats.

Recommendations	Type of Action	Who's Involved?	Timeframe
The Town should consider purchasing the rights to a gravel pit or to purchase	Project	SB, BPC	n/a

a property with sufficient gravel resources to provide for the town's needs into the future.			
Municipal gravel pits in Belvidere should follow state guidelines for use and restoration of the sites.	Planning	SB, BPC	n/a
Farm and forestland owners are encouraged to participate in the UVA program.	Non-regulatory	Public	n/a
The Planning Commission should assist landowners interested in Accepted and Best Management Practices with information and resources.	Non-regulatory	BPC, Public, Local Agencies	n/a
The Town should support the efforts of organizations in the purchase of development rights and other conservation methods provided the land protected meets the objectives of this plan. Where possible the Planning Commission should review proposed purchases and comment based on the goals of this plan.	Non-regulatory	SB, BPC, Public, Local Conservation Organizations	n/a
The Planning Commission should consider acquiring funds to have a wetland inventory of town conducted.	Research	BPC	n/a
The Planning Commission should monitor the plan for the flood hazard areas to address recreational opportunities, flood hazard protection, and the potential for implementation of water quality measures.	Planning	PC	n/a
Belvidere supports the acquisition of lands within and around the Belvidere Bog by local or state conservation agencies.	Non-regulatory	SB, BPC, Public, Local Conservation Organizations	n/a

As a result of living in Belvidere, many landowners have an ethic to be good stewards of the land. The Planning Commission recognizes that more can be accomplished by educating, advising, and assisting landowners with their natural and wildlife resource concerns than could be accomplished through regulations. The Planning Commission will support and provide guidance to any property owner with questions or concerns about their natural resources.

Section: Education and Childcare

GOAL:

- To plan for the future education of our citizens in a way that allows Belvidere to provide quality, safe, education services and adequate facilities for local residents without placing an undue burden on taxpayers.
- To participate in the planning for the use of our local school buildings for educational and other purposes for the foreseeable future.

Recommendations	Type of Action	Who is Involved?	Timeframe
Belvidere should continue to have an active role in the Board of Directors of LNMUUSD.	Communication	Representative to the Board	Ongoing
The town should urge our Senator and Representatives to ensure the needs of students from small towns like ours, are not overlooked in State Education Funding plans.	Advocacy	Public, Legislators	Ongoing
Encourage parents and local citizens to become involved with school activities and to connect with surrounding community and outdoor education programs.	Networking	BPC, School administrators, parent groups	Ongoing
Encourage the Board representative should attend a few BPC meetings to share information	Communications	BPC, representative	Ongoing
Survey citizens of Belvidere about childcare and after school program needs.	Research	BPC, Public, School Administrators	Ongoing

Inquire about special literacy programs available for Belvidere children.	Research	School Administrators	Ongoing
Inform Belvidere citizens regarding apprenticeships and mentoring possibilities in our area by connecting with GMTCC's website and the Department of Labor.	Communications, Research	School Administrators	Ongoing
Encourage the LNMUUSD to keep Belvidere Center School open as an educational facility as well as a vibrant community hub.	Advocacy	BPC, SB, Public, LNMUUSD Representative	Ongoing
Contact state senators and representatives to ensure that the concerns of small town schools are not overlooked in state educational planning and funding.	Advocacy	BPC, SB, Public, Legislators	Ongoing

Section: Facilities and Services

GOAL:

- To ensure adequate public facilities and services are available to protect and enhance the lives of residents and visitors without placing an undue burden on taxpayers.

Recommendations	Type of Action	Who's Involved?	Timeframe
Belvidere should continue its research about Broadband and other internet and cell reception options, and monitor their effect on the town residents and their properties.	Research Regulatory	SB, LCPC, LFCUD	Ongoing
Belvidere should assist with maintenance and improvement to its emergency shelter when possible.	Community Action	SB, Public, Emergency Management Coordinator/Director, LNMUUSD	As needed

Section: Energy and Utilities

GOALS:

- For citizens to generate energy locally from renewable sources if possible.

- For all energy to be provided in a safe, reliable, code compliant, and efficient manner.
- For energy efficiency and conservation to be used in the design, construction and use of municipal, industrial, commercial and residential structures.
- For citizens renovating to winterize homes with energy efficient insulation, appliances, construction materials, and bulbs when feasible.
- For the town to explore a vehicle charging station as well as a Park & Ride location in town should the need arise.

Recommendations	Type of Action	Who is Involved?	Timeframe
The Planning Commission recommends that utilities are buried if a subdivision is proposed that triggers Act 250.	Regulatory	BPC, Developers, State Agencies	As needed
The town should urge local senators and representatives to ensure that efficiency and conservations programs and projects are extended to Belvidere residents with sufficient funding for enactment	Advocacy	BPC, SB, Public, Legislators	As needed
The BPC encourages the education and training of local residents for careers in the local energy industry.	Communication	BPC, SB, GMTCC, Public	As needed
The BPC supports exploring connections with energy production systems determined by nearby towns to be viable options	Communication	BPC, SB, Neighboring Towns, LCPC	Ongoing
The Planning Commission strongly discourages development of any mid or large scale energy generation facilities or plants in Belvidere.	Advocacy	BPC, SB, Public, State Agencies, LCPC	Ongoing

Section: Housing

GOALS:

- Monitor growth patterns as measured by increase in properties on the Grand List.
- Utilize lead abatement/plumbing improvement programs to improve local historical structures and to reduce the number of affected residential structures.

- Maintain Belvidere’s affordable cost of housing by encouraging developments that do not require large public investments for infrastructure or services

Recommendations	Type of Action	Who’s Involved?	Timeframe
Identify tracts of land that would be suitable for the types of developments outlined herein.	Regulation	BPC, Developers	Ongoing
Communicate programs available for plumbing improvements and lead abatement to affected residents	Communication	BPC, SB, Public, Local Agencies	Ongoing
Investigate existing subdivision regulations for “Tiny House” communities in other towns for possible adoption by Belvidere	Research	BPC, Neighboring towns	Ongoing
Inquire as to the possibility of becoming a remote outstation for ambulance/hospital service	Research	BPC, Health Care Providers, Local Agencies	Ongoing

Section: Economic Development

GOALS:

- Acquire cell phone service and improved broadband service
- Support re-opening of local general store/gas pump at the current location
- Expand marketing/sales opportunities for products of maple and locally made goods
- Provide residents with up-to-date information about training programs available in expanding fields
- Work to position Belvidere businesses as sources for future potential bio-mass materials and transportation

Recommendations	Type of Action	Who’s Involved?	Timeframe
Meet with Belvidere Community Club (BCC) about potential autumn craft show and other opportunities at existing festivals.	Research	BPC, Public, BCC	Ongoing

Continue to investigate broadband/cell phone expansion opportunities including Lamoille Fiber Net CUD and commercial providers	Research	BPC, SB, LFCUD, LCPC	Ongoing
Research/participate in County/State/Federal and other programs that become available for technology additions/ improvements	Research	BPC, SB, Local Agencies	Ongoing
Explore future opportunities in renewable energy sector for local logging and transportation companies	Research	BPC, SB, GMTCC, Local Agencies	Ongoing
Investigate State career training programs and make information available to town residents	Research/ Communication	BPC, GMTCC, Local Agencies	Ongoing

Section: Transportation

GOALS:

- Belvidere should manage and maintain town roads to be in safe and good condition while following cost effective guidelines.
- All forms of transportation, vehicular and non-vehicular, should be balanced and integrated where feasible.
- Belvidere should work with the regional planning commission and other organizations to ensure transportation services provide assistance to residents in need of them.

Recommendations	Type of Action	Who's Involved?	Timeframe
The Selectboard should continue its efforts to work with regional and state experts to stay current with the needed road, bridge, and culvert repairs in Belvidere and should continue efforts to apply for available grants to mitigate budget expenses.	Research, Regulatory	SB, Local Agencies, LCPC	Ongoing
The town should continue to appoint a municipal representative to the Lamoille County Transportation Advisory Committee to coordinate transportation planning, road	Representation	SB, LCPC	Annually

maintenance and improvements with adjoining towns, and to ensure that the interests of the town are adequately addressed by the region.			
The town may consider long term possible locations for a Park & Ride site if the need arises.	Research	BPC, LCPC	Ongoing
Encourage pedestrians and cyclists who are residents or visitors to travel the highways of the town and to enjoy the beautiful natural surroundings.	Communication	BPC, LCPC, Local Agencies	Ongoing

Section: Land Use

GOALS:

- Guide development such that provision of school services, road maintenance, and emergency services does not put an undue tax burden on Belvidere property owners, possibly forcing existing inhabitants to leave their homes because of excessive property taxes.
- Encourage growth that will promote sound management and responsible business use of our town’s natural resources, wildlife habitat and migratory corridors, forests, and agricultural lands.
- Encourage residential and commercial growth in suitable areas.
- Direct land use decisions by local residents, rather than outside interests.

Recommendations	Type of Action	Who’s Involved?	Timeframe
Provide informational maps that reference the four districts described in this section to enhance public understanding of this plan’s growth.	Communication	BPC, LCPC, Public	Ongoing
The Town should support the efforts of organizations in the purchase of development rights and other conservation methods provided the land protected meets the objectives of this plan. Where possible the Planning Commission should review proposed purchases and comment based on the goals of this plan.	Advocacy	BPC, Local Conservation Organizations, Public	Ongoing

Engage the Select Board, Planning Commission, and regional and state organizations in reviewing all 'Act 250' applications in our town.	Regulatory	BPC, SB, Developers, State Agencies	As needed
Develop a working inventory of wildlife for our town.	Research	BPC, LCPC, Local Agencies	Future project
Promote continued respectful public access to forests and state land to enjoy Belvidere's natural resources	Communication, Advocacy	BPC, Public	Ongoing
Promote arts as a means of enjoying our town's beauty.	Communication, Advocacy	BPC, Public	Ongoing