

A scenic photograph of a sunflower field in the foreground, with several sunflowers in full bloom. In the background, there are several houses and a red barn under a dramatic sunset sky with orange and yellow clouds. The overall scene is peaceful and rural.

GRAND ISLE VERMONT

TOWN PLAN

2025-2033

*SELECTBOARD PUBLIC HEARING DRAFT 2.3.25
Adopted by the Grand Isle Selectboard on _____*

The Grand Isle Town Plan 2025-2033 was prepared by the Grand Isle Planning Commission with assistance from the Northwest Regional Planning Commission. The project was funded in part by a Municipal Planning Grant from the Department of Housing and Community Development.

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I. PLAN FUNCTION

Goals and Objectives

1. Provide opportunities for meaningful public participation in the planning process for all community members at all levels.
 2. Collaborate with other municipalities and regional organizations to address important regional issues, such as improving water quality in Lake Champlain.
 3. Consider the impact of land use decisions on adjacent municipalities and the region.
-

Purpose

The purpose of the Grand Isle Town Plan is to help guide decision-makers to chart the future of our community. The plan is the town's vision for the future, and it provides goals and objectives based upon a reflection of the past and an analysis of existing conditions. Town officials maintain a current town plan as part of an established planning program with broad community input. The plan's vision and recommendations have been developed with the best interests of the whole town in mind through a collective effort of town boards, commissions, staff and residents.

The quality of life in Grand Isle will continue and even improve as the community implements the recommendations of this plan. The plan addresses inter-related topics including land use patterns, population, housing, community facilities and services, transportation, education, natural resources, historic, cultural and archaeological resources, telecommunications, energy and economic development.

Recommendations in the plan are based on an analysis of current conditions, the input of residents, population and housing projections, and development trends in the town and surrounding region. Though the goals and recommendations of this plan are long-term, the Planning Commission will re-examine them periodically and amend the plan as needed and as required by law.

A town plan helps Grand Isle manage its future by providing it with the means to guide change. By providing the community with a plan of action, or blueprint, illustrating the community's potential future, a town plan gives the community the necessary tools to preserve community character and guide growth and development. It also enables the town to regulate land development; Vermont law requires

the adoption of town plans as a prerequisite to adopting zoning and subdivision bylaws, which must implement the town plan. Simply put, a town plan is a tool that provides strategies to create a desirable future. A town plan gives Grand Isle the power to guide change, and the pace at which change will occur, so that change does not control the town's future.

In summary, a town plan:

- sets a common vision for the future,
- provides additional information and data to guide decision-makers in developing new policies,
- identifies projects, tasks and studies to further the community's goals,
- enables the adoption of and provides a foundation for zoning and subdivision bylaws, and
- is a reference to strengthen funding applications for projects important to the town.

Authority

The Town of Grand Isle is authorized to prepare and adopt a town plan by the Vermont Municipal and Regional Planning and Development Act in Chapter 117, Title 24 of the Vermont Statutes Annotated (the Act). Section 4382 of the Act dictates what needs to be included in a plan. The intent of the law is to encourage a municipality to "engage in a continuing planning process that will further several stated goals." The Act further states that town plans shall be examined, updated and re-adopted every five years. This process should be ongoing, whereby the plan is continually reassessed and revised to meet the changing needs of the community. Consequently, there will be future opportunities to review and amend the plan. Residents, community groups or anyone with an interest in the town may have and are encouraged to provide input into this ever-continuing process to the Grand Isle Town Planning Commission at any time.

Planning and zoning in Grand Isle began on June 28, 1966, with the adoption of a zoning ordinance. The first town plan was adopted on October 12, 1972. A town plan is a "living" document that has and will continue to be updated as times and conditions change in Grand Isle. Vermont law sets an 8-year shelf life on town plans, which requires that a town adopt a new or updated plan at least every 8 years.

Adoption Process

Town plans are adopted in accordance with the Vermont Municipal and Regional Planning and Development Act (24VSA Title 24 §4385 and §4387). The process requires at least two public hearings, at least one held by the Planning Commission, and at least one held by the Selectboard. At least 30 days prior to the Planning Commission’s first public hearing, a copy of the draft plan must be delivered a to:

- 1) the chair of the planning commission of each adjoining municipality;
- 2) the Executive Director of the Northwest Regional Planning Commission;
- 3) the Department of Housing and Community Development;
- 4) all Town of Grand Isle commissions, boards and committees; and
- 5) any business, conservation or other interest groups that have requested a copy.

After the Selectboard’s final public hearing, town plans must be adopted at a meeting by a majority of the members of the legislative body (Selectboard). Town plans are effective upon adoption.

Community Engagement

Grand Isle encourages public participation at all levels of the planning process for all members of the community. All Selectboard, Planning Commission and other town meetings are open to the public in accordance with the Vermont Open Meeting Law. Residents are encouraged to attend meetings and offer input and voice their opinions to town boards. In addition to regular meetings, public hearings and information sessions are utilized throughout the planning program to help encourage public participation.

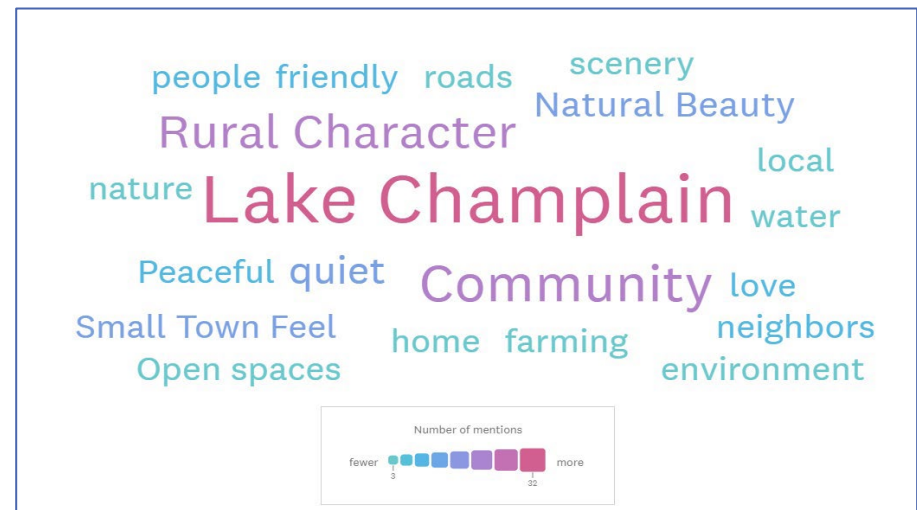
During the most recent town plan update, the Grand Isle Planning Commission completed a planning survey (see Appendix D) and held three community planning meetings to engage and involve citizens in the creation of this plan.

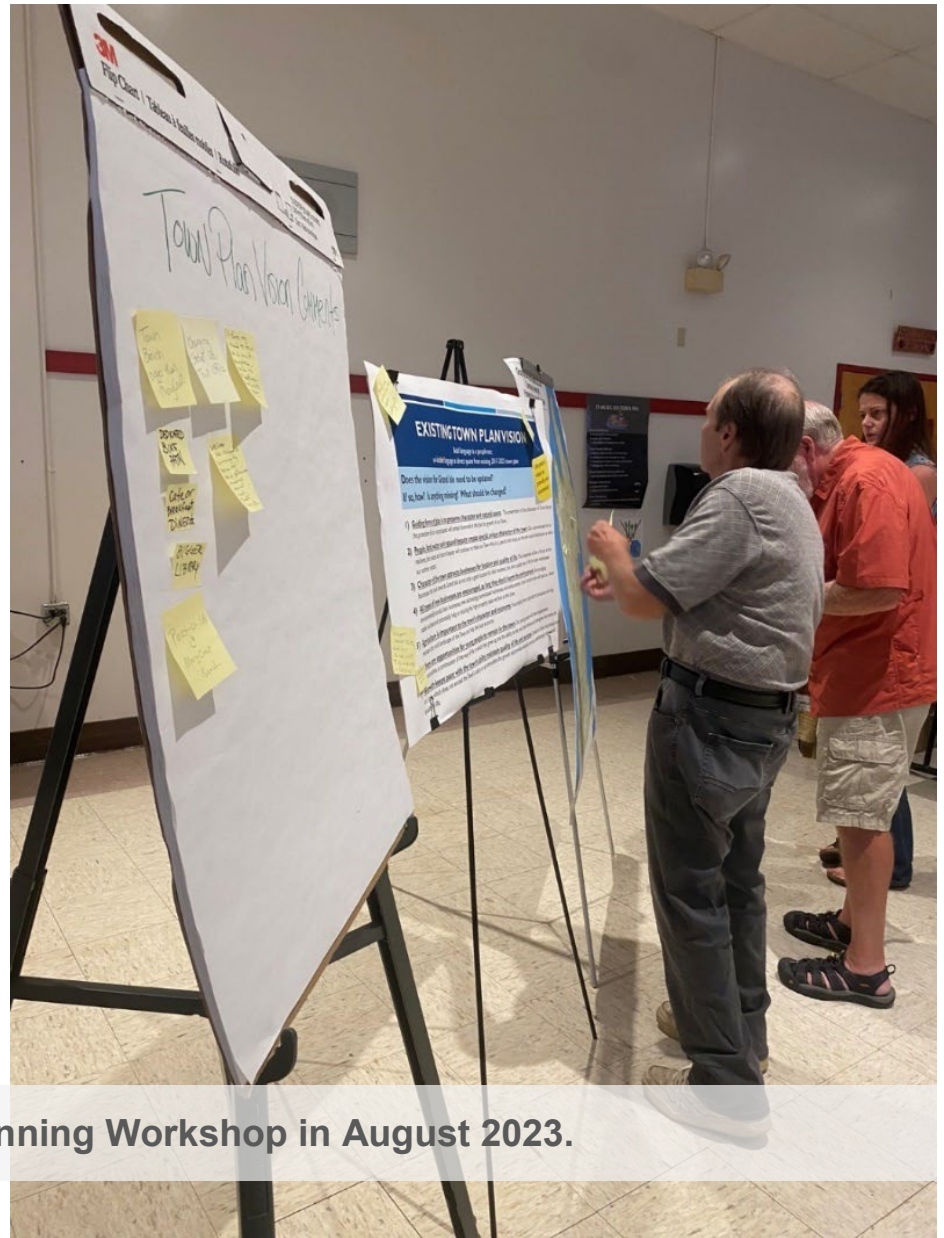
Planning Survey Word Cloud

A question on the 2023 planning survey of the community asked:

“What do you like most about living in the Town of Grand Isle?”

The graphic below is a “word cloud” of responses. The word cloud shows words that were used in responses on a scale of frequency, with the words repeated the most in the largest font size and words repeated the least in the smallest font size.





Photos from the Community Planning Workshop in August 2023.

2. GRAND ISLE COMMUNITY VISION



Grand Isle – Beauty Spot of VT

Grand Isle is a rural, island community with a unique sense of identity - centered around the working landscape, with sweeping mountain and pastoral views, and surrounded by Lake Champlain. Our town takes pride in being a welcoming, engaged, inclusive, and resilient community where year-round and seasonal residents share an excellent quality of life. We strive to provide opportunities and infrastructure to foster community and to enhance quality of life on the island.



Natural Beauty, Lake Champlain and Agricultural Heritage

Grand Isle is made up of a rural, natural landscape of agriculture, forestlands, wetlands, shoreline and small islands that impart a remarkable natural beauty. The vision for our beautiful natural and working landscape is driven by the following components:

- Beautiful vistas of rolling countryside, Lake Champlain, sunsets over the Adirondack Mountains to the west and sunrises over the Green Mountains to the east, are a special and unique part of our landscape.
- Diverse agricultural practices define the working landscape in Grand Isle and are important to the local economy.
- The Lake Champlain shoreline is central to Grand Isle's unique sense of identity, and it is important to the community that there are opportunities for everyone to access and enjoy the shoreline.
- Our unique ecological landscape of agricultural and forested land, wetlands, shoreline and small islands are abundant with environmental diversity. We take pride in upholding policies and taking action to celebrate and protect these resources and to reduce invasive species.



Seasonal and Year-Round Daily Living

Grand Isle is a beautiful, quiet community to call home, second home or seasonally visit. Grand Isle has a fluctuating population with a core year-round population which nearly doubles during the summer months with seasonal residents and tourists. Our vision for housing and providing educational opportunities for our community includes the following:

- We strive to ensure there are housing options for all ages and income levels in Grand Isle. Single unit homes, duplexes, mobile homes, and accessory dwellings are all options throughout our town. Smaller lot sizes and multi-unit dwellings provide additional residential options in village areas at a relatively higher density.
- Our town provides a high-quality K-6 elementary school as well as access to high quality secondary educational and vocational training opportunities for all, through utilizing school choice for middle and high school grades.



Local Government and Community Engagement

Grand Isle strives for a representative, inclusive, transparent local government with effective communication. The community benefits from informed and involved citizens that hold the local government accountable. The Grand Isle government responsibly plans and budgets for community needs and capital expenditures with reasonable, but limited tax burden. Our vision for government includes the following:

- Local government is executed by the Grand Isle Selectboard, made up of five elected members with staggered terms. Residents are encouraged to engage with the Selectboard at their bi-monthly meetings, which are open to the community.
- Daily operations of the Town are managed by the Town Clerk/Treasurer, an elected position.
- Our Selectboard, Town Clerk/Treasurer, and School Board work together to budget for quality schools, emergency services, good roads, library, recreation, and other community services.
- The local government and appointed commissions are responsible for ensuring sustainable growth and development so that it does not exceed the Town's ability to provide essential community services.



Local Economy and Business

Grand Isle offers an easy commute to Chittenden County where most Vermont jobs are located and has high quality internet and utilities for small and remote operating workers and businesses. Our vision for our economy is centered on the following components:

- A welcoming hospitality industry awaits seasonal residents and tourists with multiple options to access the lake and approaches from the North & South via camping, inns and short-term rentals.
- Our small community offers a variety of locally run businesses that serve the needs of our residents and visitors, including marinas, a grocery store, excavation, auto sales and service, a farmers' market, a variety of farm stands and community supported agriculture.
- Our town has an industrial park with utility availability and additional capacity to support light industrial development.



Environment and Climate Resilience

Grand Isle strives to balance environmental priorities and climate resilience with the practical needs of everyday rural living. Our vision for our natural environment and climate resilience consists of the following tenets:

- We encourage conscious development practices balancing growth and sustainability.
- We strive to increase environmental awareness within our local businesses and light industry - air, surface water, and groundwater.
- We support local food production and consumption.
- We support innovative transportation solutions that can be implemented in a rural context for a burgeoning bedroom community of the Burlington metro area.
- We encourage the development of alternative energy infrastructure to heat and power all types of land uses.
- We maintain an effective and strong hazard mitigation planning program to manage and mitigate impacts from floods and other severe weather events and meet FEMA funding requirements.

3. OUR TOWN AND HISTORY

Location and Size

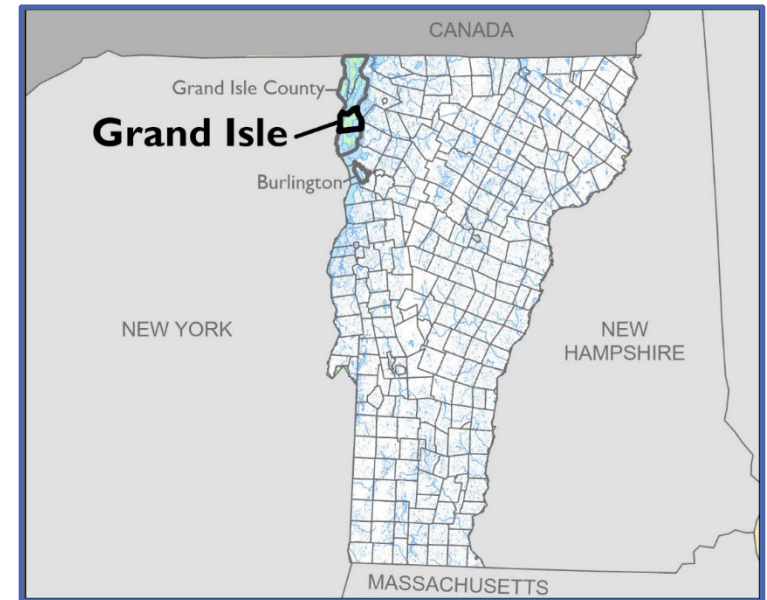
The Town of Grand Isle is in Grand Isle County, in the northwest corner of Vermont. It is situated on the northern half of South Hero Island in Lake Champlain. The southern half of the island is occupied by the Town of South Hero, and the Shire Town of North Hero lies over the draw bridge on a separate island directly to the north. The Town of Georgia in Franklin County is across Lake Champlain to the east, and the Town of Plattsburgh in New York is across the Lake to the west.

The Town of Grand Isle covers approximately 35.1 square miles, 16.4 square miles of which are on land. Grand Isle accounts for 18% of Grand Isle County's total area and 23% of its land area.

Local Government

Like many New England towns, Grand Isle's local government is executed by an elected body of five selectboard members who serve with staggered terms. The Selectboard meets bi-monthly at the Town Office, unless otherwise noticed. Meetings are held in a hybrid fashion with a physical location at the Town Office and the opportunity to attend remotely via telephone or video conference. Meeting agendas and minutes are available online through the town website.

As the executive branch of our local government, our Selectboard works in partnership with the Grand Isle Town Clerk and the Treasurer. The Town Clerk manages the daily operations and functions of the town through maintaining and updating all land records, processing vital records requests, voter registration updates, and dog registrations. The Treasurer collects property taxes and manages the Town's finances. To achieve the many functions of operating an engaging town, the Selectboard delegates town services to various appointed commissions, such as the Planning Commission, Library Commission, Cemetery Commission, Recreation Committee, Board of Listers, and Development Review Board.



Community by the Numbers

Population

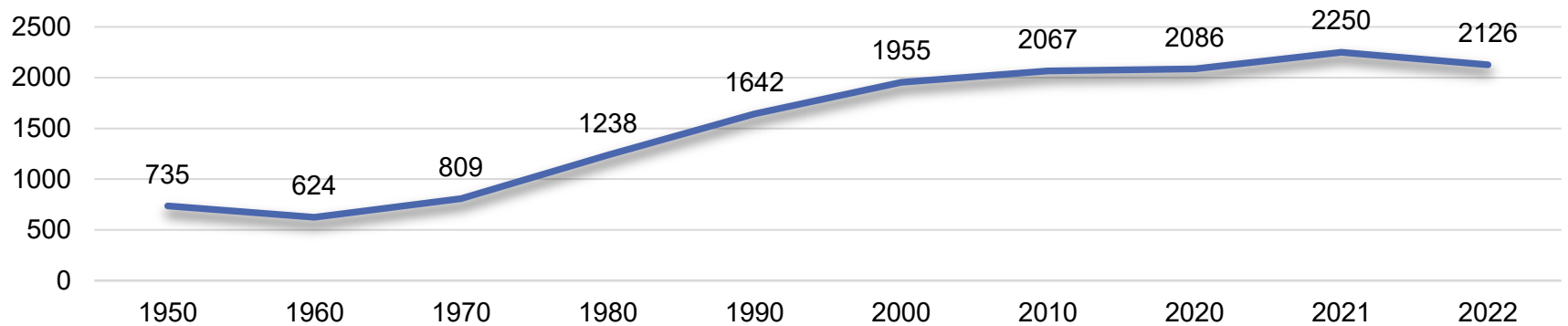
The year-round population in Grand Isle grew substantially from 1960 to 2000, after which it has remained relatively level (Figure 3.1). The U.S. Census counted 2,067 year-round residents in 2010 and 2,086 year-round residents in 2020, an increase of less than 1%. The 2021 American Community Survey population estimate shows a slight bump, reflecting a temporary increase in people reporting Grand Isle as their primary residence due to the COVID-19 pandemic.

There is also a substantial seasonal population that is not counted by the US. Census and is therefore difficult to account for. The U.S. Census counts seasonal housing units as a category of vacant housing units and is one source of data. In 2020, the U.S. Census counted 258 seasonal housing units, which could equal approximately 653 additional people in the summer (based on 2020 average household size of 2.53).



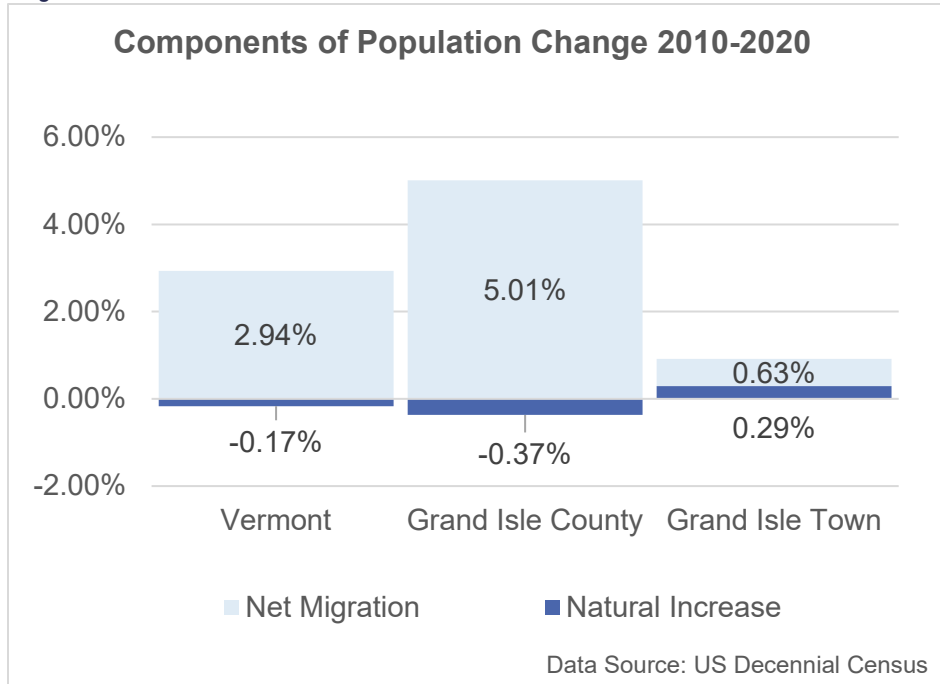
Figure 3.1

Population of Grand Isle, Vermont (1950-2020)



Data Source: US Decennial Census 1950-2020, American Community Survey 5-Year Estimates, 2021 and 2022

Figure 3.2



Population growth from 2010 to 2020 was attributable to a small natural increase (births minus deaths) and a slightly larger net migration (people moving into the town minus people moving out of the town) (Figure 3.2). From 2020 to 2022, the American Community Survey estimates 2% population growth entirely made up of people moving to Grand Isle (Figure 3.3). This in-migration likely reflects secondary homeowners reporting Grand Isle as the location of their primary residence because of the COVID19 Pandemic, such as the need to telecommute and a desire to live in less populated areas.

Figure 3.3

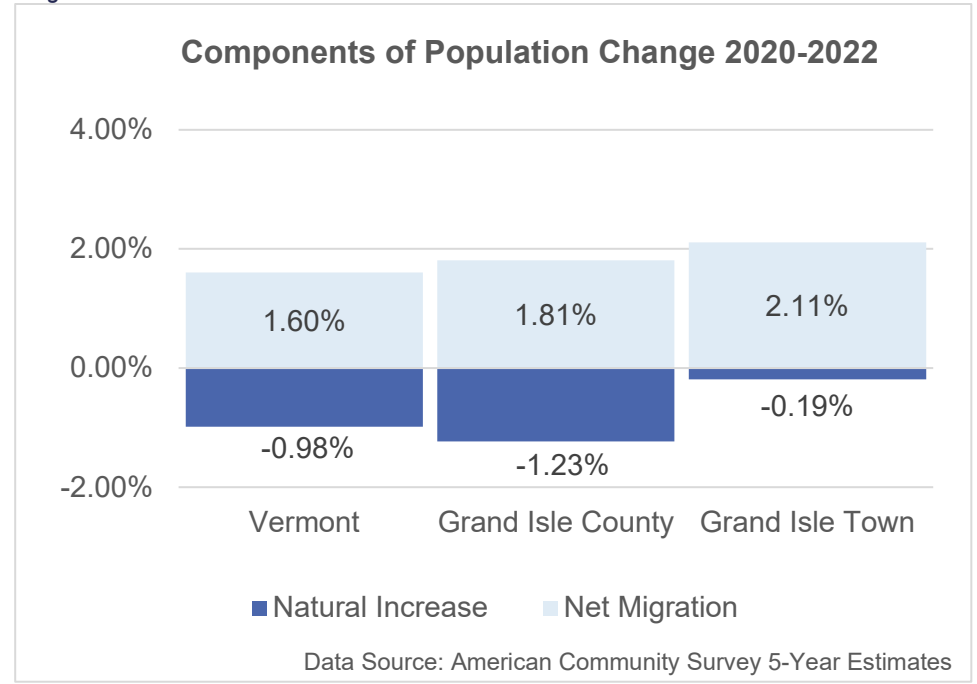
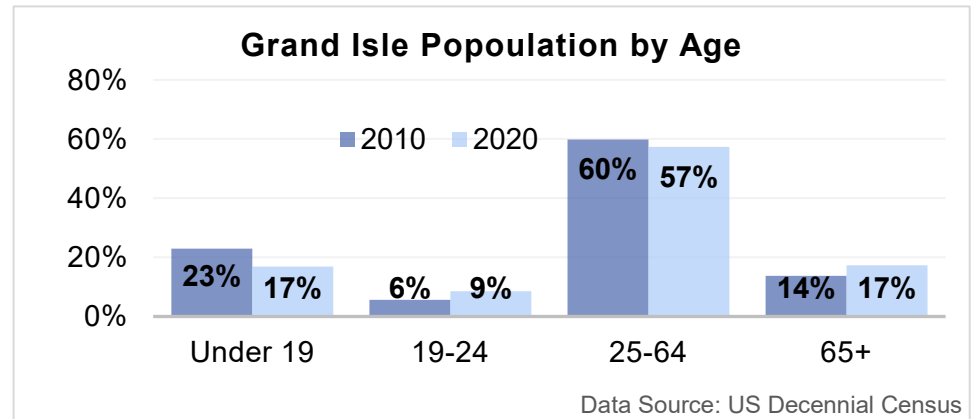


Figure 3.4



Age

Grand Isle's median age has stayed relatively consistent over the past decade, changing from 45.0 in 2010 to 45.3 in 2020. During that period, the proportion of residents 65+ increased, as well as the proportion of young adults aged 19 to 24 (Figure 3.4). The aging of the population is recognized as a statewide trend across Vermont. This is also occurring in Grand Isle, although at a slightly slower pace than the surrounding county and state.

Education

In 2022, the American Community Survey estimates that 94% of Grand Isle residents aged 25 or older had a high school diploma or higher. Less than $\frac{1}{2}$ the population (44%) is estimated to have a bachelor's degree or higher, which is a similar level to the county and state.



Grand Isle Elementary School students gleaning cabbages at Pomykala Farm.

Photo Credit: Healthy Roots

Community History

Grand Isle has a rich history, summarized here for perspective. Two informative town histories can be found in the Town library:

- History of South Hero Island; Volumes I and II; by Allen Stratton; 1980
- A History of the Town of Grand Isle as Told by the People of the Town; edited by Jan Bender; 1991

Abenaki, Mahican and Iroquois people have lived in the Lake Champlain area for thousands of years. The European settlement of Grand Isle began in the late 1700s.

1779: Charter granted by the Republic of Vermont.

- *The charter was given under the name of Two Heroes and included all of the land on North and South Hero islands.*

1780: The first European settlers, Alexander Gordon and Lamberton Allen, build on the northern end of South Hero Island in present day Grand Isle.

- *From this date forward settlement was rapid. Supported by rich agricultural soils, a thriving, diversified, self-sufficient agricultural economy was quickly established, with its own merchant, tavern keeper, blacksmith, tanner and carpenter.*

1783: First recorded deed from William Williams to Capt. Jedidiah Hyde.

- *Capt. Hyde's son built a log cabin on the land. The Hyde Log Cabin survives today as the oldest cabin in Vermont and is operated as a museum by the Grand Isle Historical Society.*

1798: Ferry service chartered from Gordon's Landing to Cumberland Head in New York



The Hyde Log Cabin during a 1941 restoration, when it was moved to its present location. Source: Grand Isle Historical Society

By the early 1800's, the town was well organized, holding town meetings, electing town officers, and delegating a representative to the legislature.

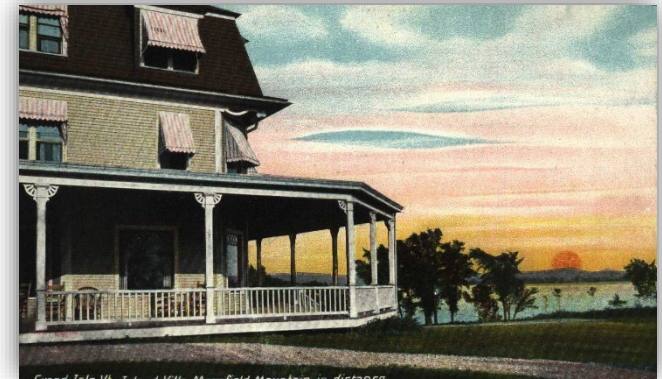
1801: Quaker meeting house built in log cabin, first church in Grand Isle

1810: Post office established

1853: Sandbar causeway bridge to Milton opened

1870: Grand Isle's popularity as a summer vacation area begins

The lake and the town's rural agricultural character were the original attractions for camps and commercial recreation. Visitors were put up in boarding houses and summer hotels, the most famous of which was the 1903 Island Villa Hotel, which was also known as Camp Marycrest and today as the Grand Isle Lake House.



A postcard of the Island Villa Hotel from the early 1900s. Source: Preservation Trust of Vermont

1882: First bridge to North Hero Island constructed

In 1900, the opening of the Rutland Railroad through the Champlain Islands brought additional economic prosperity.

1900: Railroad from Colchester to Rouses Point opens with stop in Grand Isle

Islanders used the railroad to go to high school, church, and shopping. Many island residents found work as station agents, bridge tenders, and shop workers in Alburgh. The trains brought mail, newspapers, and campers. Farms used the railroad to ship milk, beans, and apples.

1918: Cooperative creamery established to serve farmers in the area

The creamery continued operation until 1968, when the St. Albans Cooperative Creamery Association bought it.

1961: Train service through the Islands discontinued



A Rutland Railroad locomotive on the tracks at Grand Isle railroad station. Source: Middlebury College Archive

Today, Grand Isle remains a distinctly rural town with a strong community and easy access to the natural beauty of Lake Champlain. A familiarity with and appreciation for Grand Isle's past will be helpful when we plan for the future.

4. ISLAND LIFE AND DAILY LIVING

Local Economy

Goals and Objectives

1. To strive for a diversified economy by promoting the development and expansion of appropriate commercial and recreational businesses and industries.
2. To encourage and promote local agriculture and value-added enterprises.
3. To encourage and promote service enterprises including but not limited to childcare, medical, dental, social and personal services, restaurants and other value-added support services.
4. Encourage clean and environmentally sound commercial and/or light industrial development in appropriate areas in the town.
5. Continue economic planning for new locally owned and operated enterprises and promote businesses that operate year-round, and that utilize the local labor force.
6. Promote the clustering of commercial activities and discourage suburban sprawl and strip development.
7. Work with the Lake Champlain Islands Economic Development Corporation and other tourism planning agencies to ensure that the needs of Grand Isle are met.
8. Promote the resources made available through the Lake Champlain Scenic Byways.
9. Promote local Farmer's Markets and stocking of local produce by businesses in town and the wider region.

Overview

As a rural island community, agriculture and tourism have been important components of the local economy in Grand Isle. Although most residents are employed in other sectors, farming remains a stable base for the community's economy as well as a means of maintaining the open land and rural atmosphere desired by visitors and residents. Given Grand Isle's unique island setting, the

preservation of the existing Island character and the protection of natural resources are key aspects that guide the growth of the community, balanced with the need to provide affordable housing and childcare to maintain a stable workforce and infrastructure to support businesses.

Local Employment Characteristics

The labor force in Grand Isle hovers around 1,300, which includes residents of Grand Isle aged 16 and over that are employed or unemployed, including those in active military duty. The size of the labor force shrank by about 4% during the pandemic but seems to have recovered to pre-pandemic levels by the end of 2023. The average labor force throughout 2023 was 1,302. The annual average unemployment rate for 2021 was 1.7%, down from an all-time monthly high of 13.3% in April of 2020.

In 2022, the American Community Survey estimated that 62% of Grand Isle residents worked outside of the county and 36% worked inside the county, including the 22% who worked in Grand Isle Town. The number of Grand Isle residents working within the town has increased substantially in past years, most likely due to an increase in residents who work from home post-pandemic. 17% of Grand Isle workers worked from home in 2022.

The residents of Grand Isle are engaged in a wide range of occupations including construction, manufacturing, business and professional services, arts and recreation, food service, education and health occupations. Table 4.1 shows the industry sectors of the Grand Isle workforce.

Table 4.1: Industry of Grand Isle Employed Residents, 2022

Industry	Percent
Agriculture, forestry, fishing and hunting, and mining	3.8%
Construction	6.8%
Manufacturing	14.4%
Wholesale trade	3.4%
Retail trade	7.6%
Transportation and warehousing, and utilities	1.5%
Information	0.0%
Finance and insurance, and real estate and rental and leasing	4.0%
Professional, scientific, and management, and administrative and waste management services	11.9%
Educational services, and health care and social assistance	22.3%
Arts, entertainment, and recreation, and accommodation and food services	11.0%
Other services, except public administration	8.3%
Public administration	5.0%

Source: American Community Survey 5-Year Estimates

Local Businesses

There are approximately 290 workers employed in the Town of Grand Isle, 67 business and seven public-sector establishments (Table 4.2). Business owners’ ingenuity has provided the town with local enterprises such as bakeries, a grocery store, specialty agricultural products, traditional home goods and crafts, services and more. Small businesses and home businesses are essential to both the economic stability of our citizens as well as the town. The town would like to continue to promote the creation of brick-and-mortar type enterprises but acknowledges the benefit internet-based enterprises have brought to the town. Reliable high-speed internet has made these marketplaces possible and given them the ability to flourish. The Lake Champlain Islands Economic Development Corporation provides a directory of local businesses (www.champlainislands.com).

Most residents work outside of the Town of Grand Isle or work from home, meaning that many in-person positions are filled by residents of other communities. Since 2017, the number of private sector establishments has increased while the number of employees has decreased. The past 5 years have also seen an increase in the number of public-sector employees, although the number of establishments has remained similar.

Tourism and hospitality are vital to our community. There are numerous short-term rentals for visitors as well as RV and camping rental businesses. Small businesses offer tourists the ability to partake in bike tours, kayaking / paddle board tours, make boat rentals and reserve dock space at marinas. Visitors are drawn to Grand Isle for the lake access, outdoor recreation and beautiful scenery. Grand Isle provides a welcoming tourism environment with multiple options to access the lake and approaches from North and South.

Table 4.2: Local Employment Characteristics for Workers Employed in the Town of Grand Isle, 2022

Private Sector	2007	2012	2017	2022
Establishments	55	57	57	67
Employees	249	261	255	201
Average Wage	\$32,783	\$36,014	\$42,948	\$61,648
Public Sector				
Establishments	7	8	6	7
Employees	77	73	59	89
Average Wage	\$33,954	\$37,593	\$36,926	\$42,722

Source: Vermont Department of Labor, Economic & Labor Market Information
These numbers are based on employees eligible for unemployment insurance and therefore exclude an important portion of the workforce-sole proprietors and their partners, most farms, and some non-profits.

The annual average wage for Grand Isle workers in 2022 was \$55,830, higher than the average wage for the county of \$45,632 (private and public sectors) but under the statewide average of \$59,606 (VT Department of Labor). The Housing Chapter contains additional information on median household income and housing affordability.

Long-Term Economic Development Variables and Strategies

Remote Work. After the COVID-19 pandemic many offices have continued to operate remotely, allowing people to live further away from traditional centers of employment. Evidence has shown that an increasing number of Grand Isle residents are working from home. With the ability to move anywhere, remote workers may continue to choose Grand Isle as a place to live in the future.

Tourism and Outdoor Recreation. Tourism is a vital component to Vermont's economy, bringing in over \$3 billion each year statewide. Grand Isle has a long history as a summer destination, and Meals and Rooms Tax data indicates that lodging and restaurants are major contributors to the economy of Grand Isle County. For visitors to Grand Isle there are various tourist services and attractions including the fishing access, snack bar/delis, gas stations, inns, short term rentals, campgrounds, historic sites, marinas, farm stands, farmers markets and the Grand Isle Ferry.

As discussed in the transportation chapter, the area sees many bicycle tourists in the summer months. Bicycle tourism is supported by the regional organizations Local Motion and Lake Champlain Bikeways, which provide route maps and other information on local amenities for cyclists coming to the area.

State parks and campgrounds are another draw to Grand Isle. The Grand Isle State Park is the most visited campground in the state system and has 115 tent/trailer sites, 36 lean-to sites and four cabin sites. Other state and town owned public facilities are listed in the Public Facilities Chapter.

Agriculture & Local Food. Local agricultural employment in town includes dairy, vegetable, and fruit farms, orchards, and smaller diversified specialty farms. According to the 2022 U.S. Census of Agriculture, there were 40 farm operations in the zip code 05458 (Grand Isle) in 2022, up from 24 in 2017. 70% were less than 50 acres and 30% were over 50 acres, with one larger than 1,000 acres.

These farms provide jobs for residents, utilize an important land resource, contribute to the scenic beauty and open spaces of the town and provide an important product and market for other businesses. Grand Isle's strong agricultural base lends itself to agritourism, which

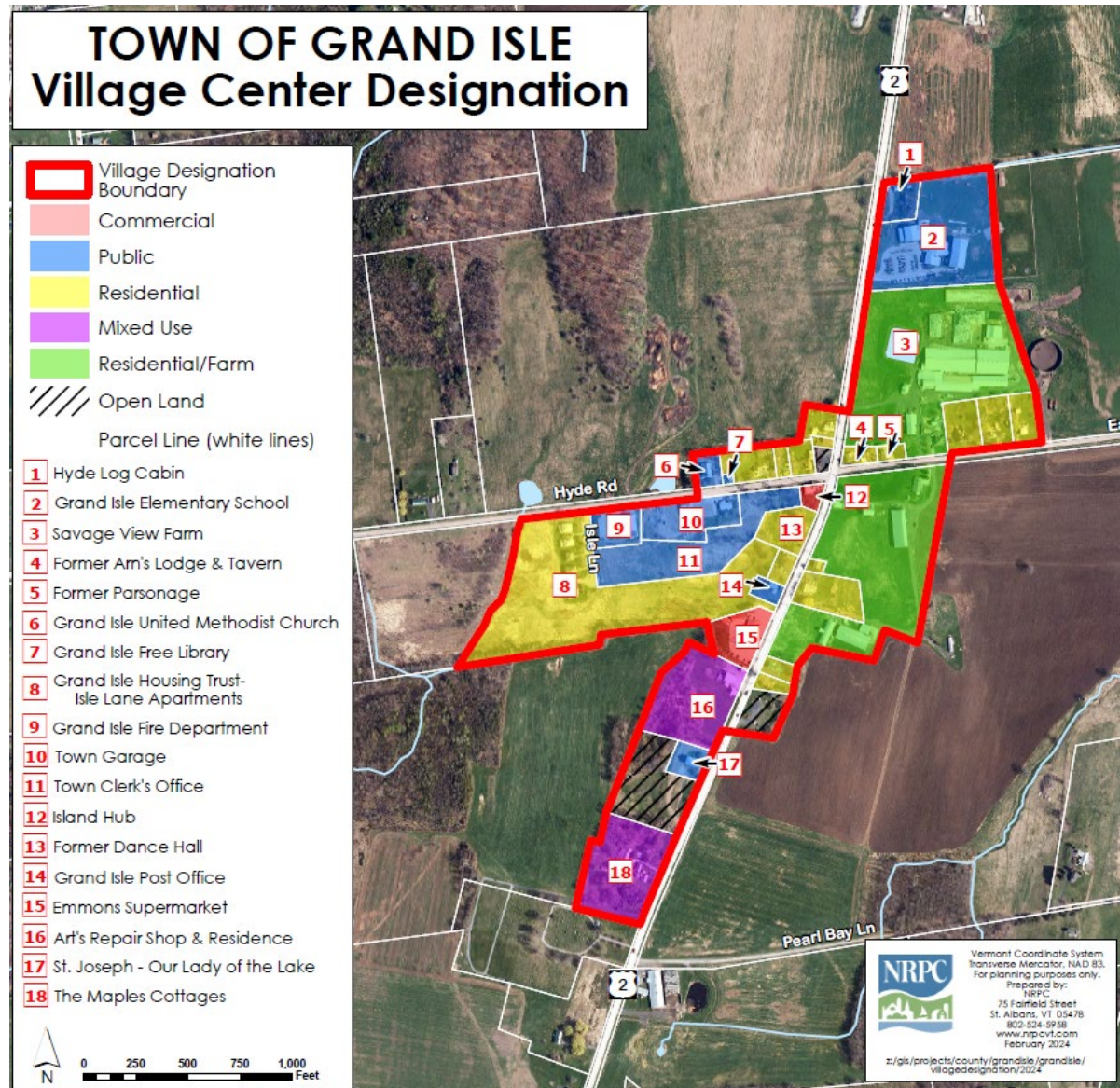


results in additional support for farm businesses and greater appreciation of the land and local agriculture. A similar opportunity is found with Community Supported Agriculture (CSA) shares, which create a partnership between the farmer and the customer for a share of food produced that season. In addition, there are several farms and local businesses that offer value-added products from local resources such as wool, honey, handmade soap and compost. Agritourism, CSAs and value-added products provide local businesses with a source to diversify their farming ventures and maintain sustainable businesses.

Supporting New Business. The community currently encourages the opportunity for new development with bylaws that allow for certain types of commercial development and home occupations in all zoning districts. The Lake Champlain Islands Economic Development Corporation (LCIEDC) also offers grants and entrepreneur education to support new and existing businesses throughout Grand Isle County.

Village Center Designation. Vermont has established a framework of “designations” to offer incentives that encourage communities to maintain vibrant concentrated settlements

Map 4.1



separated by rural countryside. Each program has a set of unique goals for making vibrant places and offers a variety of incentives for development. Village Center Designation supports small town revitalization with a variety of tax credits to support improvements to historic properties and priority consideration for several State grants. Village Center Designation boundaries are typically smaller in size than Village Zoning Districts because they are intended to encompass the historic commercial and civic core of the community, excluding adjacent residential neighborhoods. In 2023, Grand Isle received Village Center Designation for the historic village center at the crossroads of Route 2, Hyde Road and East Shore Road North, known as Grand Isle Village. The Planning Commission intends to seek Village Center Designation for the historic Grand Isle Station village center in the next year. The Vermont Community Investment Board, which currently grants designations, is receiving new applications through October 2025, after which, the process for achieving designations is changing and will be granted when included on the Regional Planning Commission's Future Land Use map approved by the Vermont Land Use Review Board.

The Village Center Designation program will help the Town of Grand Isle as it applies for various State grants, including Vermont Community Development Program grants. Village Center designation is an important tool to further the Town of Grand Isle's goals for vibrant village centers. Once designated, the Town will be eligible for the following benefits:

- Technical assistance provided by the state to support local village revitalization and planning efforts.
- Downtown and Village Center Tax Credits.
- Priority Consideration for various state grants including Agency of Commerce and Community Development's Municipal Planning grants and Bylaw Modernization grants, State Historic Preservation grants, Vermont Community Development Program (VCDP) grants, VTrans Bike/Ped and Transportation Alternatives grants, Northern Border Regional Commission grants, Agency of Natural Resources Water and Wastewater subsidies and loans, and various other state grants and resources.
- Neighborhood Development Area (NDA) eligibility, which is another state designation program that provides incentives for residential neighborhoods within or adjacent to village centers.

Challenges to Economic Development

The town faces challenges to local economic development. By working to address these challenges the Town of Grand Isle encourages the continued development of a healthy economy. Many of these challenges are discussed in other chapters of the plan but are referred to here as they relate to economic development.

Sewer and Water Infrastructure. A major barrier to attracting new business in Grand Isle is the limited feasibility of septic systems and drinking water access. The town's soil and topography limit the location of soil-based wastewater treatment options, which creates difficulty in siting new development.

Housing Affordability. A lack of nearby affordable housing for workers can present an obstacle to attracting new businesses to the area. More affordable housing options would help maintain a stable workforce to support local businesses and services. Building new housing in concentrated areas can also support the viability of establishing local businesses to serve residents, reducing the need to travel outside of the community for day-to-day needs.

Childcare. Lack of affordable childcare has been recognized as a statewide issue in Vermont. Families can spend up to 30% of their income on childcare, which can force parents, usually mothers, to leave the workforce to take care of their young children. The availability of affordable and accessible childcare is an essential aspect of maintaining a stable workforce.

Sidewalks and Bicycle Infrastructure. As discussed in the Transportation chapter, Grand Isle has an overall lack of sidewalks and dedicated bike paths, which presents an obstacle to economic development. An opportunity exists to provide greater bicycle and pedestrian infrastructure in the town to capitalize on the positive economic impacts of bicycle tourism and walkable village centers.

Telecommunications Infrastructure. Adequate cell phone coverage and high-speed internet for business development, home occupations, remote work and general household use. The Town of Grand Isle supports efforts to improve cellular and high-speed internet service in town that does not have an undue adverse impact on the character of the area.

Seasonal Economy. Due to the largely seasonal nature of Grand Isle's tourism and outdoor recreation-based economy, it can be a challenge for new businesses to maintain enough sales to remain viable throughout the year. Residents would also benefit from a greater amount of goods and services available year-round in their own community, reducing the need to travel elsewhere. Examples include childcare, medical, dental, social and personal services, restaurants and other value-added support services.

Housing

Goals and Objectives

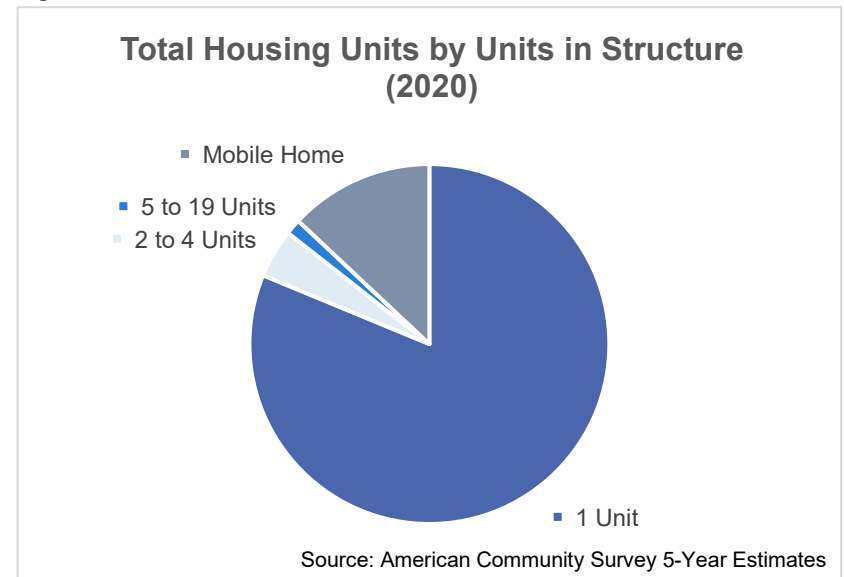
1. Encourage the development of safe and affordable housing of a variety of types that meet the needs of diverse social and income groups in Grand Isle.
2. Support affordable and suitable housing development for households and individuals with special housing needs, including seniors, those with disabilities, single parent households, first time homebuyers and low- and moderate-income households.
3. Support housing agencies, private lenders, developers, realtors, and builders in providing safe, affordable housing.
4. Require the siting of new housing development to preserve the greatest number of working lands or natural areas and blend harmoniously with the natural environment.
5. Most new housing development should be concentrated in and around the village area and community services.
6. Sites for multi-family and manufactured homes should be readily available in locations like those used for single-family dwellings.
7. Encourage accessory apartments within or attached to single unit homes and duplexes throughout the town.

Housing Stock and Households

The 2020 Decennial Census counted 1,237 housing units, 258 (21%) of which were recorded as seasonal, recreation or for occasional use. Most housing units are owner-occupied single-unit homes. 11.9% of housing units are occupied by renters.

Grand Isle’s housing stock has a range of structure age – 30% of occupied units were built since 2000, and 27% were built before 1940. There has been a notable shift in housing types, with a decrease in the proportion of mobile home units and an increase in the proportion of single-unit homes that are not mobile homes.

Figure 4.1



Regional and statewide trends have shown decreasing household size and a greater number of single person and non-family households. In 2022, the American Community Survey estimated average household size in Grand Isle was 2.54, which is higher than the surrounding county and the state and an increase since the 2010 Census, which reported an average household size of 2.27. The 2020 Decennial Census did not report average household size.

The 2020 Decennial Census reported that the number of single person households has increased in Grand Isle Town, and the proportion of families with children has decreased compared to families without children. The Census also reported an increase in 5 and 6 person households during this period, which likely influenced the uptick in average household size.

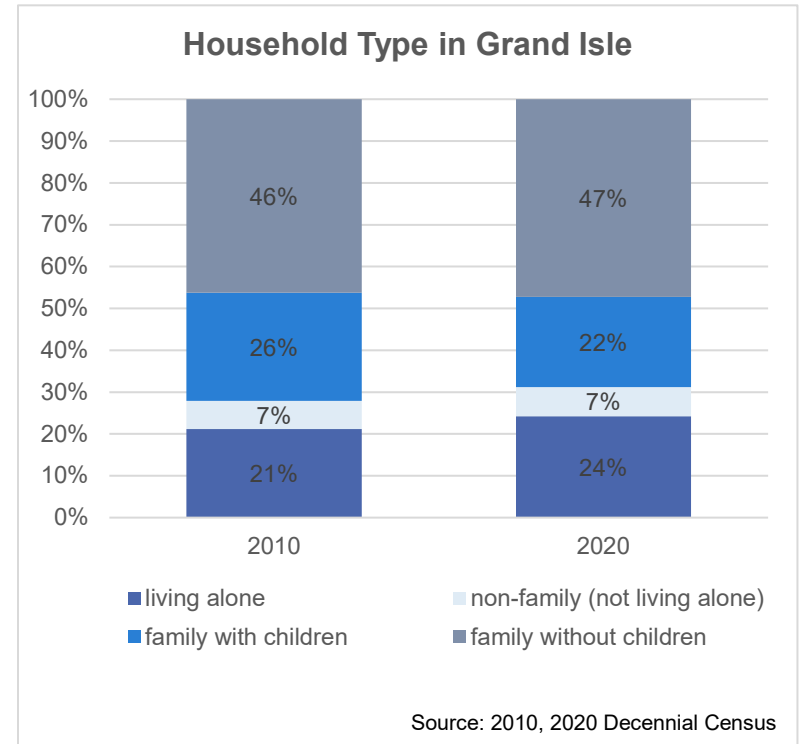
Where possible, this section uses the Decennial Census due to its higher accuracy. The American Community Survey (ACS) data from the United States Census Bureau uses estimates based on sample populations averaged across a 5-year period. Because Grand Isle’s population is relatively small, estimates tend to have a high margin of error; however, in many cases, the ACS is the best available data and should be evaluated with these limitations in mind.

Housing affordability

Under 24 V.S.A. §4303, affordable housing is defined as:

- 1) Owner-occupied housing for which the total annual cost of ownership does not exceed 30% of the gross annual income of a household at 120 percent of the highest of the county median income, Metropolitan Statistical Area (MSA) median income, or statewide median income.
- 2) Rental housing for which the total cost of renting does not exceed 30% of the gross annual income of a household at 80% of the highest of the county median income, MSA median income, or statewide median income.

Figure 4.2



Grand Isle is in the Burlington-South Burlington MSA, which includes Franklin, Grand Isle and Chittenden counties. According to the U.S. Census American Community Survey, the median household income of Grand Isle County was \$86,639 in 2022. Because this is higher than the median income of the MSA or State, county median income was used for the affordability calculations below. It is important to note that the median income for the Town of Grand Isle is \$97,361, slightly higher than the county level. As of 2024, residents at median and above median incomes cannot afford to buy homes in Grand Isle.

Homeownership

For the past decade, the price of housing in Grand Isle has increased at a similar rate to the region. However, in 2022 there was a break from this trend, with a sharp 33% increase in Grand Isle’s housing price from the previous year.

Figure 4.3

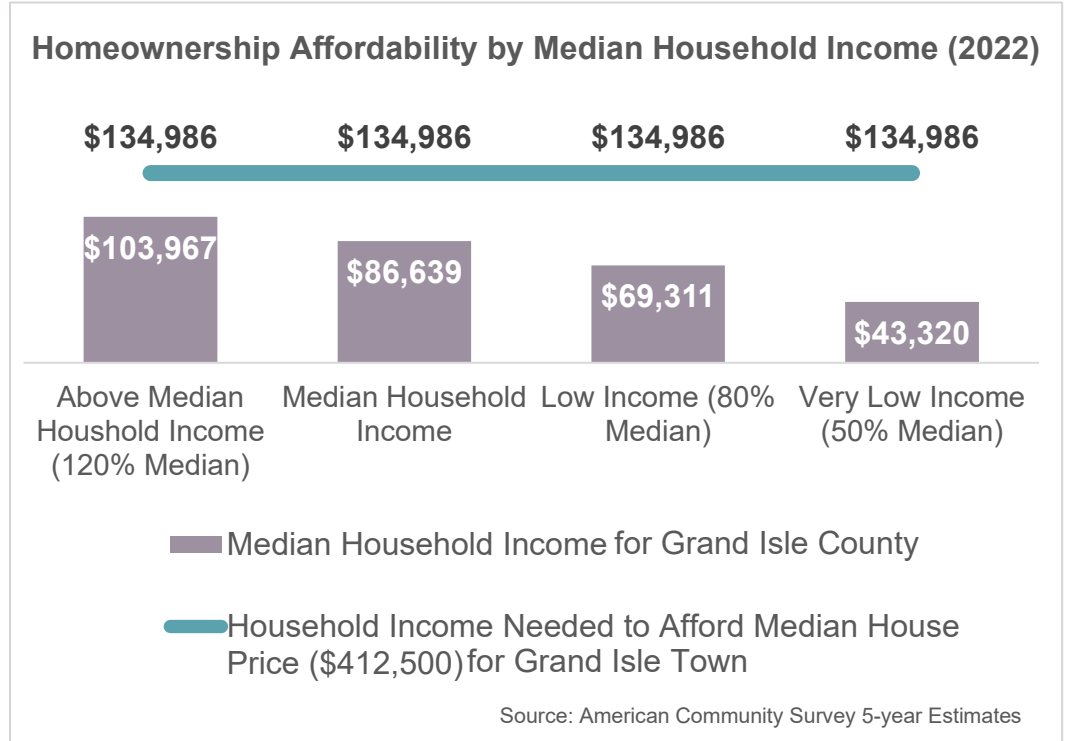
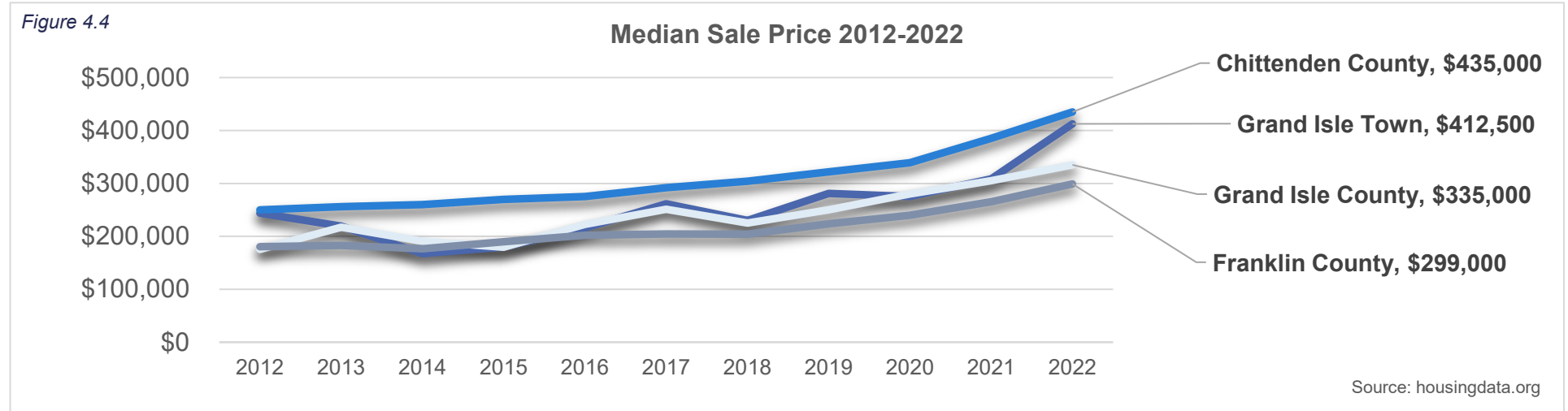


Figure 4.4

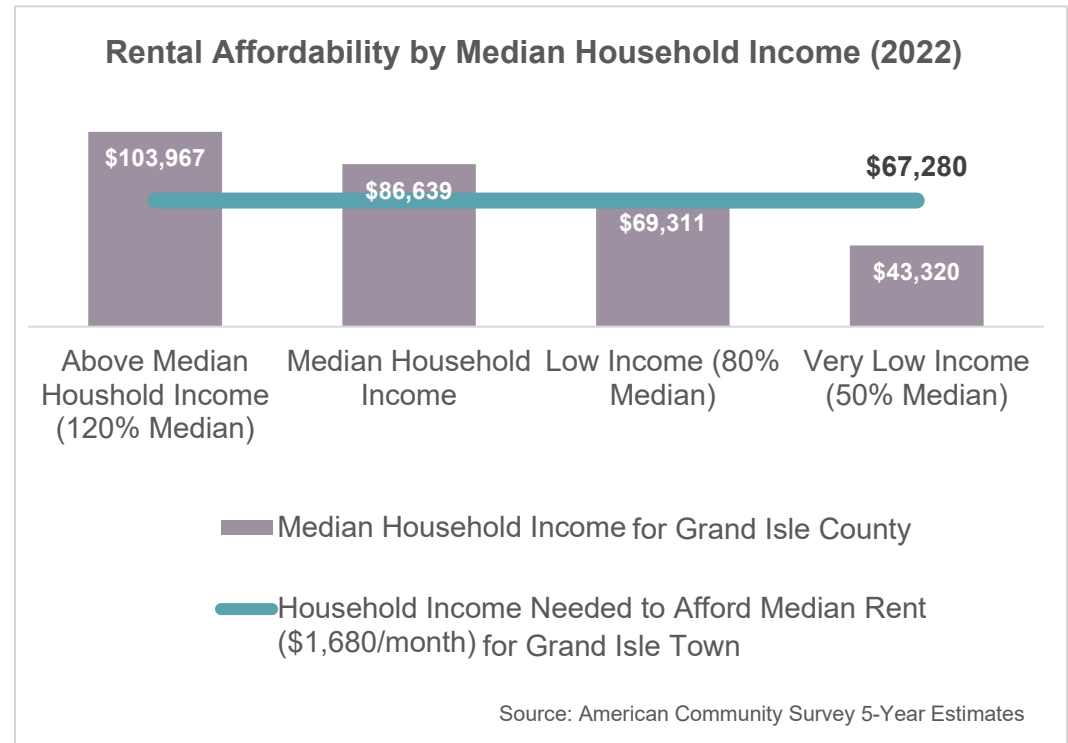


In 2022, the median sale price of a primary residence (excluding seasonal homes) was \$412,500. According to Vermont Housing Data’s Home Price Affordability Calculator, when factoring in downpayment, taxes, interest, and insurance, this home price is affordable to households making \$135,000 per year or more. As of 2022, Grand Isle County’s median household income is \$86,639, about \$48,000 lower than the income needed to afford the median home. This discrepancy between income and housing price indicates a lack of affordable housing supply in Grand Isle, which is further shown by the fact that 35.8% of Grand Isle homeowners spent 30% or more of their income on housing in 2022.

Rental housing

In 2022 the median rent in Grand Isle was \$1,682. According to state guidelines, a household would have to make \$67,280 for this rent to be affordable. Grand Isle County’s median income is about \$19,000 higher than this level, meaning that the median rent is technically affordable to most residents in the area (Figure 4.5). However, a significant proportion of renters in Grand Isle have far lower incomes than the median, with 77% of renters earning \$50,000 or less. In 2022, 64% of renters in town reported spending over 30% of their income on housing, indicating a lack of affordable rental housing for residents who need it. Additionally, the rental vacancy rate for Grand Isle was 0.0% in 2022, indicating that every rental unit was currently occupied, and no rental units were available. A rental vacancy rate of 5-10% is considered healthy. According to Census data, no new rental units have been built in Grand Isle since 2010, and 58% of rental units were built 1939 or earlier. This indicates an aging rental housing stock that has not been expanded.

Figure 4.5



Seasonal Homes

Seasonal homes are important to the tourism and outdoor recreation economy in Grand Isle. The 2020 Decennial Census reported that 21% of housing units in Grand Isle were occupied for seasonal, recreational or for occasional use, which equates to 258 units. The Town's grand list also maintains a list of seasonal parcels based on the lister's determination of the "highest and best use" of the property. Based on this determination, fewer properties are listed as seasonal than are used as seasonal – listing only 8% of properties with dwellings as seasonal in 2022. For example, dwellings that are suitable for year-round use but used as seasonal dwellings are not listed as seasonal, while dwellings that are not suitable for year-round use, such as having no insulation, would be listed as seasonal. Increased demand for second homes can further constrain the supply of housing units for full-time residents, which is important to monitor in the face of the current housing crisis, where home prices are soaring, and options are sparse. From 2019 to 2023, a net total of 10 properties in Grand Isle were bought as secondary homes from sellers who had used them as primary homes, indicating a growing seasonal population. It can be assumed that the increased demand is a result of the COVID 19 pandemic, at least temporarily. It is unclear how many seasonal properties are short-term rentals, although Air DNA, a company that tracks short-term rentals, recorded 31 active whole house short term rentals in the summer of 2022, about two and a half percent of the stock.

Housing Needs

Overall, data shows that there is an unmet need for housing in Grand Isle. A large proportion of current renters and homeowners are cost-burdened, and most housing built since 2010 has been in the form of detached single-family homes on large lots, which can lead to greater cost burden due to lot size and increased costs for transportation. Continuing this pattern of development can lead to sprawl and development pressure on rural working lands and will not address the cost burden for homeowners. Land use and housing policy will play an essential role in ensuring that housing is developed in an equitable and sustainable manner going forward.

Increasing the diversity of housing stock in appropriate areas, including smaller units, multi-unit structures, accessory dwelling units and manufactured homes, can provide more affordable options for residents. For example, adding an accessory dwelling unit to an existing lot can generate extra income for the homeowner and create a new rental housing unit in the process.

Grand Isle's Village Center districts have been identified for denser mixed-use housing development. Creating new housing in proximity to community services will strengthen Grand Isle's village centers and allow working lands and natural areas to retain the town's rural character. The Town will work to reduce regulatory barriers for building appropriately scaled housing in the villages.

Public Services and Facilities

The changing population and needs of the town impact public services and facilities. To plan for the future, this chapter provides information from the past and objectives for the future that will assist the Town in providing residents and guests with necessary facilities and services. The Town strives to meet the needs of the community as development continues. Planning for these changes can ensure that the people of Grand Isle will continue to enjoy a high quality of life.

Goals and Objectives

Emergency Services

1. Provide first-rate volunteer fire protection and excellent service by the Grand Isle Rescue Squad.
2. Maintain robust volunteerism for fire and rescue service by supporting the needs and acknowledging the efforts of the local volunteer firefighters and first responders.
3. Work in the future to identify methods to fund and enhance the police protection in our community, especially increased hours of coverage.

Water and Wastewater

4. Support the town's independent public community drinking water systems as a safe drinking water source for residents.
5. Where feasible, encourage new developments to be added to the existing public community drinking water systems.
6. To maintain the town's rural working lands, forests and wildlife habitat, promote clustered developments which share wastewater disposal systems.
7. Coordinate with the State of Vermont to the extent feasible to provide alternatives and best fixes for malfunctioning or improperly operated wastewater disposal systems.
8. Consider long term solutions for community wastewater management in areas planned for concentrated development.

Solid Waste

9. Continue membership with the Northwest Vermont Solid Waste Management District.
10. Maintain the central transfer station and recycling facility operated by the Town and encourage increased utilization of it.
11. Prohibit and prevent the improper storage and disposal of hazardous waste in the town.

Telecommunications and Internet Service

12. Achieve full broadband access and cell phone service throughout town, with a choice of cost-effective providers.

Library

13. Construct the new Grand Isle Library and Community Space, designed to meet the current and future needs of the town, as the cornerstone of the new Municipal Town Center.
14. Maintain the existing Library as efficiently and economically as possible to provide library services that meet the needs of the community while the new Library is built.

Municipal Buildings

15. Maintain all municipally owned buildings, including the Town Office and Town Highway Garage as efficiently and economically as possible and ensure that the buildings have capacity to meet the needs of the community.

Capital and Capacity Planning

16. Ensure that the ability to provide educational, emergency, road and other services keeps pace with the town's growth.
 17. Identify and plan for municipal equipment and facilities that need replacement, retrofit, or upgrade and develop methods of financing the replacement. This may include a capital budget and program or similarly effective method.
 18. Ensure that the town's facilities and services have sufficient capacity and quality to accommodate the rate of growth.
-

Emergency Preparedness

The Town has a designated Emergency Management Director/Coordinator in accordance with Vermont Statutes, Title 20, Part 1, Chapter 1, §6 and adopts an Emergency Operations Plan annually. The County has a Regional Emergency Management Committee (REMC), which is established by statute under 20 V.S.A. § 6(d), to support coordinated emergency planning efforts within regions. The Grand Isle REMC consists of two voting members from each municipality: 1 Emergency Management Director/Emergency Management Committee representative and one representative from the emergency services community (fire, ambulance/rescue, etc.). The Grand Isle REMC meets concurrently with the Grand Isle Mutual Aid Association every other month.

Emergency response organizations in Grand Isle County and one neighboring town in Quebec are part of the Grand Isle County Mutual Aid Association, including Alburg Fire and Rescue, Clarenceville Quebec Fire, Grand Isle Fire Department, Grand Isle Heavy Rescue, Grand Isle Rescue Squad, Grand Isle Sherriff's Department, Isle La Motte Fire Department, North Hero Fire Department, South Hero Fire Department and the South Hero Rescue Squad. The Mutual Aid Association is bound by written agreement to assist each other in responding to emergencies, upon request, by furnishing personnel and equipment. As such, the Town is compliant with the National Incident Management System (NIMS), a framework for local, state and federal government to work together to respond to all hazard events.

Section 5, Hazard Mitigation Planning and Emergency Relief and Assistance Fund provides additional information on the Town's plans and readiness to respond to hazard events.

Police, Fire, Ambulance and Rescue

The Grand Isle County Sheriff's Department and the Vermont State Police provide police protection. In 2024 the Grand Isle County Sheriff's department responded to 681 incidents in the Town of Grand Isle, accounting for 30% of incidents countywide. There is no local police department, which often inhibits the ability to address small local incidents requiring law enforcement assistance.

Fire protection is provided by the Grand Isle Volunteer Fire Department, a non-profit organization. The department is funded by a Town appropriation, a state appropriation from the fish hatchery, and by donations. The department works closely with other towns to maximize county-wide fire protection and water rescue. The fire station is a Town-owned building located on Hyde Road in the village district. The current fire station was built in 2018 and replaced the previous facility built in 1970 to provide an increase in space for equipment. The fire department responds to approximately 100-150 calls per year. The water supply throughout the town is not designed to meet firefighting standards and tankers are used to shuttle water to most fires. The town does not have a hydrant system.

Ambulance and rescue services are provided to the Town of Grand Isle and the Town of North Hero by Grand Isle Rescue, a nonprofit fully volunteer organization. Grand Isle Rescue is funded by a Town appropriation and private donations. The rescue squad facility on the corner of U.S. Rt. 2 and Faywood Road was built in 1993. The building provides two ambulance bays, a classroom for training and meetings, and space for storage and administrative functions. Grand Isle Rescue operates under medical direction from the University of Vermont Medical Center in Burlington, where most transported patients receive medical care. If requested, patients may also be taken to Northwest Medical Center in St. Albans. In 2023, the rescue squad responded to 360 calls. Operating costs have been rising in recent years due to an increase in rescue needs.

To support recruitment and retention, the Town of Grand Isle Selectboard is discussing whether to provide stipends to fire fighters and rescue squad volunteers.

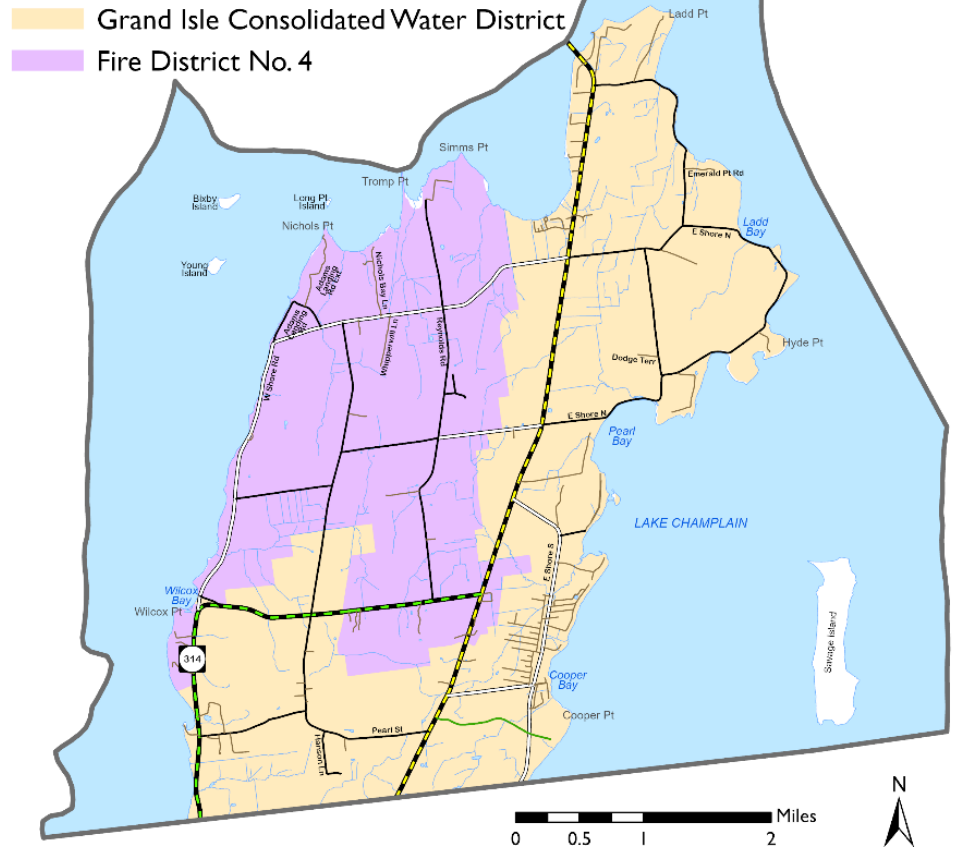
Water Supply

There are two public water systems in Grand Isle, the Grand Isle Consolidated Water District (GICWD), formed in the mid 1990's, and the Grand Isle Fire District No. 4. The GICWD has incorporated the former Grand Isle Fire Districts 1, 2, and 3 along with the Point Farm Water System and additional areas not previously served by municipal water systems. In addition, a number of small private water systems serve up to as many as fifteen homes each. The Town does not have a record of these systems.

The GICWD intakes at the Fish Hatchery and Fire District No. 4 have adopted treatments for dealing with zebra mussels, which present an increasing threat to the Lake Champlain water supply. Private lake water systems must also deal with the problem of zebra mussels, as well as further filtration and sterilization to ensure potable water at the tap. Well water in Grand Isle often suffers from naturally occurring iron and sulfur

Map 4.2

Town of Grand Isle Municipal Water Districts



compounds, which are difficult to remove and can make the water unpleasant to drink. The Town is also concerned about blue green algae and its potentially harmful impact on the water supply.

Wastewater Treatment and Disposal

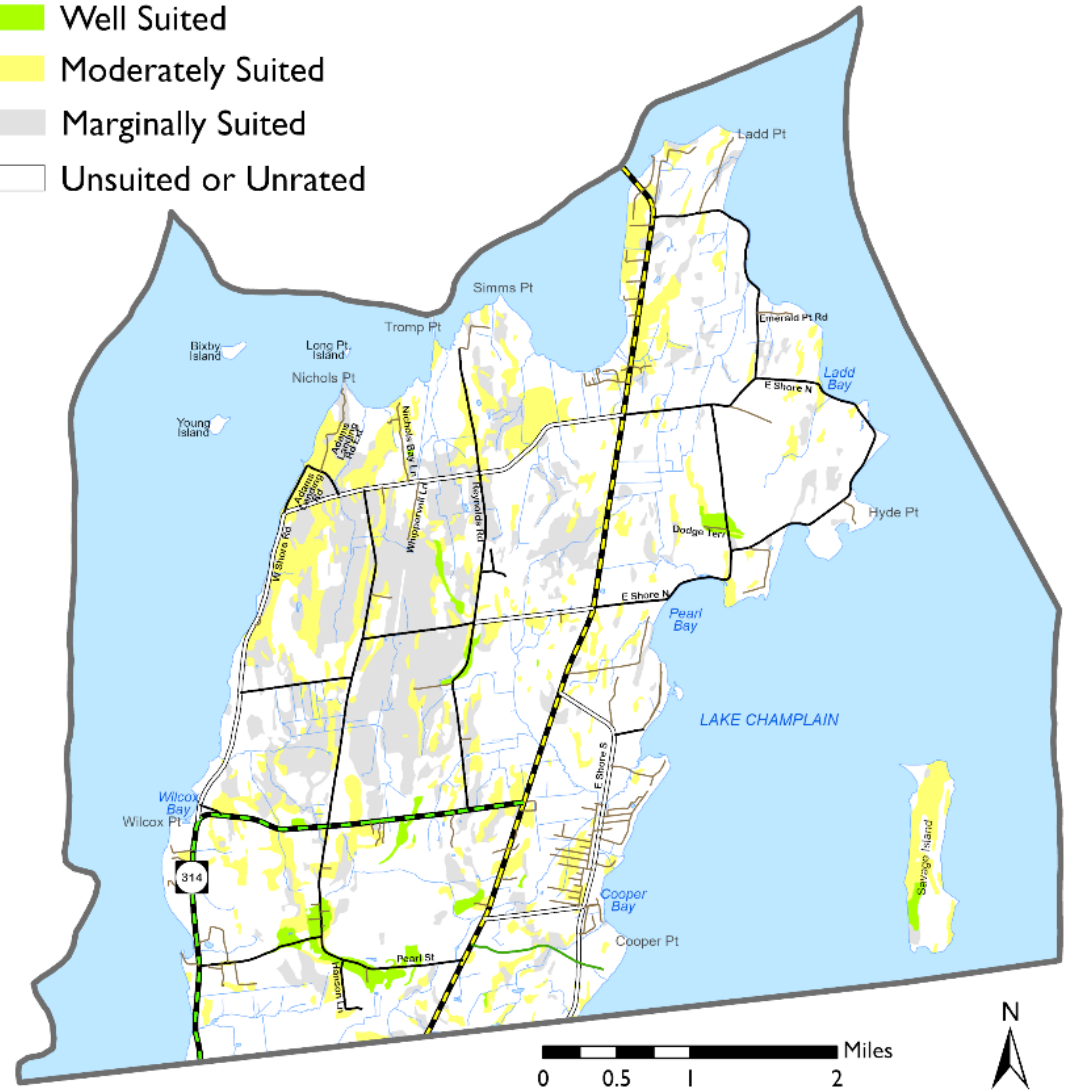
The proper disposal of sewage is crucial to the health and well-being of the community. Sewage disposal systems which do not function properly may pollute groundwater, contaminate drinking water sources, provide breeding grounds for disease, cause noxious odors, and lead to contamination of Lake Champlain.

There are no municipal wastewater treatment systems in the town. Wastewater disposal is managed on an individual on-site basis. The fish hatchery maintains a specialized wastewater system to treat the water from their operations. All wastewater should be discharged into a properly designed and constructed disposal system or properly constructed alternative facility. The Wastewater Management Division of the Vermont Department of Environmental Conservation regulates all disposal system work.

Map 4.3

Town of Grand Isle - Septic Suitability

- Well Suited
- Moderately Suited
- Marginally Suited
- Unsited or Unrated



Much of Grand Isle's land area has soil that is poorly suited for septic. Deep or adequately drained soils which could potentially accommodate high-capacity sewage disposal systems occur only in small, scattered locations. Given these conditions, the development potential for small lots with individual septic systems is limited. However, sharing of wastewater systems can allow buildings to be sited closer together, promoting the clustering of buildings within developments and preserving undeveloped open land. The village is a prime candidate for such development. Over the long term, promoting development in the immediate vicinity of the village would make a municipal wastewater treatment system for the village financially feasible.

Solid Waste Collection and Disposal

The Town operates a transfer station Hanson Lane, which accepts household trash, recycling and food scraps. Grand Isle is also a member of the Northwest Vermont Solid Waste District (NWSWD) which is a legislatively chartered Municipal Corporation that supports the Town and its 18 other member municipalities with planning, implementing, and regulating waste management strategies. The NWSWD operates two other nearby solid waste drop off stations including on West Shore Road in North Hero and the Georgia Recycling Center on Morse Drive. Recycling has been mandatory since March 1993 and is accepted free of charge from Grand Isle residents. Food scraps are also required to be composted as of 2020 and are accepted at the Town's transfer station and by the district at drop-off centers. The NWSWD continues to address the problems of household hazardous waste, sludge and other long term solid waste issues throughout the district.

Telecommunications and Internet Service

Access to high-speed Internet and cellular phone service are important for business development, home occupations, remote work and general household use. Most Grand Isle residents have access to internet service that meets the minimum standards for high-speed/broadband internet, including cable, satellite and wireless options, but the town is not served by high-speed fiber. To support high-speed internet access, the Town has joined the Northwest Fiberworx, a municipal organization with the mission of expanding fiber internet infrastructure in the region. Most residents also have adequate cellular service, but coverage varies by carrier and can be spotty. While future infrastructure upgrades are needed, improvements should be consistent with the character of the town.

Municipal Buildings

Town Garage. The Town Garage, built in 2021, is located at 81A Allen Road next to the Annex building. The building is 60-feet by 142-feet. The garage is fully heated with propane. The building was built energy efficient to Leadership in Energy and Environmental Design

(LEED) standards. The building contains five oversized overhead doors. The garage has ample space to store plow trucks and other Town owned vehicles / equipment inside. The garage is equipped with ample space for mechanical repair of equipment and the last bay includes a wash bay. The Town Garage is the emergency meeting space for the daycare / preschool next door at the Annex. The space contains an office, mezzanine storage space, mechanical room, restroom and a breakroom. The garage also has a separate salt shed measuring 40-feet by 100-feet. A grant has been submitted for a generator for this building for emergency purposes.

Town Office. The Town Office is a 30-foot by 54-foot building which contains two 10-foot by 14-foot vaults, office space for the Town Clerk, Assistant Town Clerk, Listers, Zoning Office and Development Review Board Clerk, areas for researchers and public municipal meetings, a bathroom, and 820 square feet of basement storage. Built in 1967, the building was enlarged to its current size in 1984. Public meetings which cannot be accommodated in the meeting room are held at the Grand Isle Elementary School. The Town Office and community meeting space continue to be a priority for planning purposes, and possible new space or renovation of the existing space is a consideration for the future Municipal Town Center. The Town Office received an energy audit in 2010 and completed renovations to increase the energy efficiency of the building.

Fire Station. The current Grand Isle Fire Station was constructed in 2017, and the fire department moved in by January 2018. The land for the current fire station was purchased by the Town in 2015. The fire station is located at 17 Hyde Road next to the Town Offices. The construction of the building is “L” shaped. The station has six overhead doors (12-foot wide by 14-foot tall) with roughly 7,900 square feet plus the mezzanine. The station was constructed to LEED standards with energy savings in mind and includes LED lights and motion. The station has propane-fueled radiant heat in the flooring, as well as heat pumps and a generator. The apparatus bay area is 48-feet by 109-feet and the area with offices and a community room is 54-feet by 50-feet.

The Annex. The Town of Grand Isle owns the Annex, a 62-foot by 32-foot building located at 81 Allen Road. The building housed a daycare for 30 years until the COVID 19 pandemic. The Town worked hard to find a use for the building, and it was listed for rent without any offers. The Town sought out daycare providers in the area and was fortunate enough to find a provider in



South Hero willing to expand their business. In 2022 Turn to Joy opened in the Annex providing much needed daycare and preschool services to the citizens of Grand Isle. The building has an upstairs that is currently used primarily for storage as well as a meeting room for teachers of Turn to Joy. The local business pays for all utilities on the building while the Town continues to be responsible for upkeep and maintenance.

Public Library. The Grand Isle Free Library (as existing in 2024 during the development of this town plan) is an historic, two-room, 900 square foot brick building located in the center of Grand Isle across from the Town Office on Hyde Road. While the 100-year-old library is severely space-constrained, it houses more than 8,600 books for loan. The library hosts weekly story-time for children at the Fire Department's community room (due to greater space needs) and hosts small regularly scheduled community events including fiber arts, painting, writing and book discussion groups for adults. The library is open 20 hours per week and is staffed by a salaried director, with most of the library funding coming from the Town.

In September 2024, the Town was awarded a \$1.68M federal capital grant through the VT Department of Libraries to construct a new library and community space. The Town and the Library Board have set aside additional capital funds for this project, and, per the performance period of the grant, the Town expects to complete this project by year-end 2026.

Planning for a Municipal Town Center

The Planning Commission and the Selectboard Board are planning for a new Municipal Town Center, to be developed on a 6.7-acre Town-owned property on Hyde Road between the Town Office and the Fire Department buildings. The new Grand Isle Library and Community Space project will be the cornerstone of the new Town Center, located on a new Town Green. The Town Center will provide residents and seasonal visitors with a place to gather, work, learn and connect within the community, both indoors and outdoors.

During the 2024 town plan update process, the Planning Commission developed a vision for the Municipal Town Center with input from a Community Planning Survey (see Appendix D) and a community planning workshop. As part of this process and the VT Library Grant application process, the Planning Commission worked with an architectural firm to develop a comprehensive site plan for the Municipal Town Center property.

Grand Isle Municipal Town Center Vision Elements

- Library
- Town green along Hyde Road
- Town offices
- Outdoor space for community events
- Indoor space for meetings and classes
- Trail loop around perimeter
- Ice skating
- Connection to Post Office/Emmons
- Complement Donaldson Rd Rec Park

Map 4.4








Town of Grand Isle Facilities & Utilities

LEGEND

Facilities & Utilities

-  Electric Transmission Lines
-  Public & Conserved Land



Transportation Features

-  Federal Highway
-  State Highway
-  Class 2 Town Highway
-  Class 3 Town Highway
-  Class 4 Town Highway
-  State Forest Highway
-  Private Road

Boundary Features

-  Town Boundary

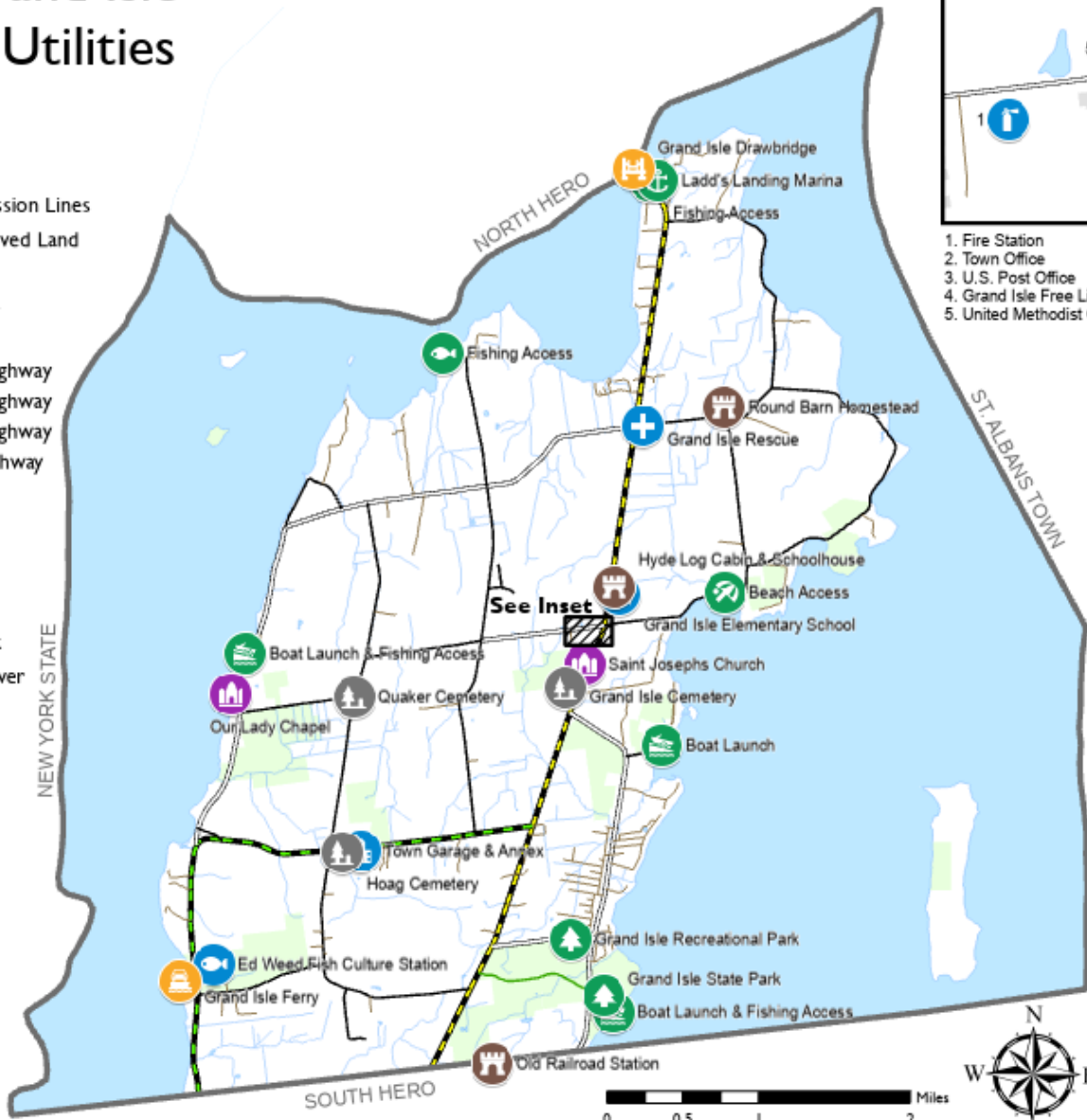
Surface Water Features

-  Stream or Brook
-  Lake, Pond or River

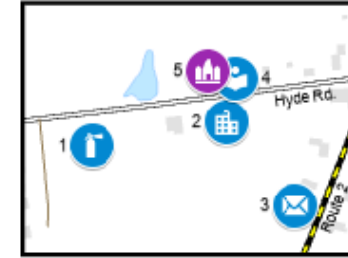
Vermont Coordinate System
Transverse Mercator, NAD 83.
For planning purposes only.

Prepared by:
Northwest Regional
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March 2024.

Location:
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townplan\townplan2024\grandisleplanmaps.aprx



Grand Isle Village Inset



1. Fire Station
2. Town Office
3. U.S. Post Office
4. Grand Isle Free Library
5. United Methodist Church

Education, Childcare and Lifelong Learning

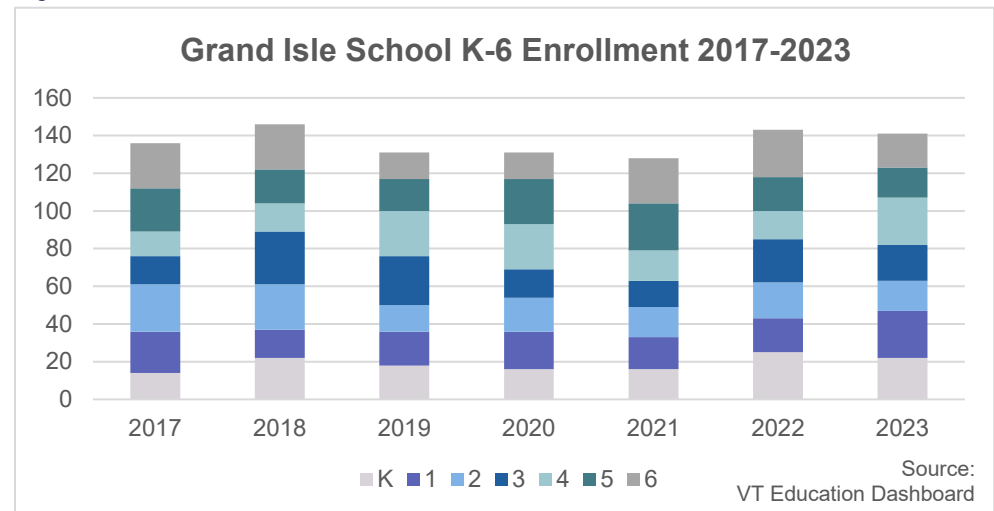
Goals and Objectives

1. To provide and broaden access to educational and vocational training opportunities sufficient to ensure the full realization of the abilities of current and future residents of all ages.
2. Support the exploration of alternative means of funding education and encourage property tax reform.
3. Support the development of new childcare and early learning centers in the Town of Grand Isle to meet the needs of families.
4. Ensure that the regulation of land development in the Town of Grand Isle does not negatively impact the availability of safe and affordable education and childcare.

Local and Regional Schools

Grand Isle, North Hero and Isle La Motte are part of the Champlain Islands Unified Union School District. As of 2024, students in the district have school choice and can attend either Grand Isle or North Hero Elementary School for Pre-K through 6th grade. Grand Isle School is a focal point of educational and community activities in the town and possesses a dedicated faculty and staff with a high record of academic standards. In addition to regular school activities, many of the facilities are used for a variety of purposes on a nightly basis by town residents and various groups and organizations. The school building also serves as the designated emergency shelter for the town and has been equipped with a diesel generator to provide electric power during emergencies. The total enrollment for the 2022-2023 school year was 141 students, a 4% increase from 2016-2017. The school has a maximum design capacity of 260-325 students depending on the age ranges of the classes.

Figure 4.6



There is no high school or middle school in Grand Isle County; high school and middle school students have a choice between several schools in the region. For the past several years, most students have chosen to attend either South Burlington High School, Essex High School, or Colchester High School. The Town pays tuition for students to attend these outside schools. Each of these schools provides bus service to students coming from Grand Isle. It is important to continue efforts to maximize the use of current facilities and reduce operating expenses, while providing high-quality education to children.

Child Care

Finding high quality and affordable childcare is a growing concern for existing and prospective families. A 2023 report from Vermont's Early Childhood Data and Policy Center shows that a family of four needs \$110,000 to meet basic needs. Families can spend up to 30% of their income on childcare, which can force parents or caregivers to leave the workforce to take care of their young children. The availability of affordable and accessible childcare is an essential aspect of maintaining a stable workforce.

Many child development experts believe that children often do not have the maturity and self-care skills to be left unsupervised until the age of 12. The 2020 U.S. Census indicates that there were 314 children under the age of 14 living in Grand Isle, a 9% decrease from the previous decade. Children under 14 currently make up 15% of the town's population.

According to State data on the Bright Future directory, the Town of Grand Isle has two licensed childcare providers with a total maximum capacity of 60 pre-school spots and 16 after-school spots. While these programs have some vacancies, there are no infant and toddler providers in the town. Data on unregistered childcare options is not available. The advocacy group Let's Grow Kids estimates that over 100 additional slots for infants, preschoolers and toddlers are needed to meet childcare demand in Grand Isle County. The Town supports the expansion of childcare services available to residents.

Continuing Education

Continuing education for adults is generally available in St. Albans, Burlington or Plattsburgh. In St. Albans and Winooski, the Community College of Vermont offers courses and degree programs. Colleges in the Burlington area include the University of Vermont, St. Michael's College, Champlain College and Vermont State University.



Recreation

Goals and Objectives

1. Provide town recreational facilities and programs for the use and enjoyment of area residents and visitors.
2. The Town Recreation Committee will work in conjunction with the Town Planning Commission and Town Selectboard on any combined recreational/commercial issues which may arise.
3. Promote the development of recreational and tourist activities, services and facilities placing emphasis on the use of natural and existing man-made resources and on development which does not contribute to pollution of the lake.
4. Increase cooperation with other recreation entities in Grand Isle County to provide year-round programs.

Recreational facilities are an important aspect of community life. The Town owns the following recreational facilities: the Grand Isle Recreation Park on Donaldson Road, Mary Crest beach on East Shore Road North, and a boat launch ramp at the end of Folsom Harbor Road. Recreation in Grand Isle is supported by a combination of user fees, local fund raising, grants, and Town appropriations.

The Grand Isle Recreation Park is located on Donaldson Road on 23.1 acres of property owned by the Town. The site has been developed with facilities including two baseball and softball fields, a basketball court, pickle ball courts, an ice-rink and a children's play area, walking trails, a picnic pavilion and restrooms.

State owned recreation facilities in the town include the following:

- Grand Isle State Park Campground: Most popular State Park campground in Vermont, operated by the Vermont Department of Forests, Parks and Recreation; 226.57 acres with walking trails, shoreline, beach and campground facilities. Available to overnight campers from Memorial Day to Labor Day.
- Vantine's Access Area: 0.61 acres on West Shore Road, operated by the Vermont Department of Forests, Parks and Recreation.
- Grand Isle Fish Hatchery: includes 1,000 feet of lake frontage, a visitor center, and a developing archaeological exhibit; owned by the Vermont Buildings Division but operated by the Department of fish and Wildlife.
- Hyde Log Cabin: owned by the Town and operated as a museum by the Grand Isle Historical Society.
-

Increasing public lake access is a priority for the town. Lake Champlain is Grand Isle's most valuable resource and provides the potential for numerous recreational activities. Capitalizing on the lake's recreational potential by increasing public access areas for residents and tourists will benefit the town's economy and further improve residents' quality of life.



Transportation

Goals and Objectives

1. Provide safe, convenient, economic, scenic, multi-modal and energy efficient transportation systems that respect the integrity of the natural environment, the vibrant village areas, and the rural character of Grand Isle.
2. Maintain and enhance a network of roads that are designed for all users with a complete streets approach.
3. Maintain a road maintenance and improvement program for the repair and/or rebuilding of the existing road network in an orderly cycle.
4. Maintain the existing character and design of roads and public rights-of-way along the lakeshore, which are an integral part of the town's unique island character.
5. Work with the NRPC and VTrans to ensure improvements to Route 314 and Route 2 are made in the town's best interest.
6. Reduce air pollution by encouraging public transit, carpooling and the use of park and ride lots.
7. Continue to be represented on the Northwest Regional Planning Commission's Transportation Advisory Committee (TAC).
8. Expand and maintain a system of walking trails, hiking paths, bike paths and multi-use recreation paths.
9. Require developers and property owners to provide access to development with new or expanded driveways and roads that meet Town standards and are appropriate in design to the project or development they serve.
10. Continue to coordinate with CIDER to ensure transportation options for senior citizens and the disabled.



Grand Isle Draw Bridge on Route 2

Road Network

The main automobile route connecting communities in Grand Isle County is U.S. Route 2, which runs north-south through Grand Isle. VT Route 314 also connects Route 2 to the Grand Isle Ferry. These routes are regionally important for cars and trucks traveling through the Champlain Islands and to New York. In addition to these state-maintained roads, Grand Isle also has 28.5 miles of Class 2, 3 and 4 town highways. These roads generally receive less traffic and are used primarily by people travelling locally. The town also has many privately owned and maintained roads serving private residences.

As of 2024, pavement condition on Route 2 is rated by VTrans as Fair throughout the Town of Grand Isle. Route 314 is rated as Poor to Very Poor, with the last maintenance being conducted in 2013. The drawbridge between Grand Isle and North Hero was replaced in 2022, and all state-maintained bridges and culverts in Grand Isle are currently rated as structurally sufficient by VTrans. The Town maintains local roads, which are generally in good condition.

Route 2 is a state-designated Scenic Byway. Many other roadways through Grand Isle offer scenic views throughout their entire length, although the Town has not officially recognized any areas of scenic value.

Complete Streets

Complete Streets is an approach to the planning, design, construction and maintenance of our roadway network to consider all users, including pedestrians, bicyclists and transit riders. As approximately half of Vermont residents are unable to drive due to age (those under age 16 and the elderly), disability, and economic constraints, the principle underlying the Complete Streets concept is that streets should safely accommodate all transportation system users, regardless of age, ability, or what mode of transportation they prefer. Context and current or potential travel patterns need to be considered in determining the appropriate way to meet the needs of all modes of transportation. Not every street or road will be used by a wide variety of modes, but a complete streets approach considers all users, and seeks desirable, practical and affordable improvements that will be accepted by the community.

**Table 4.3:
Road Mileages in Grand Isle**

State/Federal Highways:	Miles
U.S. Rt. 2	6.27
Vt. Rt. 314	3.90
Town Highways:	
Class 1	0.00
Class 2	9.31
Class 3	18.23
Class 4	1.04

Bicycle and Pedestrian Networks

Currently, no dedicated bicycle or pedestrian infrastructure exists along Grand Isle’s roads. Pedestrians and cyclists must share the roadway with trucks and automobiles traveling at high speeds, which presents safety concerns. Shoulders are very narrow on high-traffic state roads, giving bicycles and pedestrians very little separation from vehicular traffic. An increase in bicycle and pedestrian infrastructure should be considered in all future road upgrades to ensure the safety of all road users.

Grand Isle has a mapped on-road bicycle route as part of the Champlain Islands Bikeways network. Like much of the surrounding area, the town sees a large amount of bicycle tourism in the summer months, including cyclists who ride south from Quebec and north from Chittenden County via the Champlain Causeway in South Hero. Grand Isle recognizes the positive economic and environmental impact of creating pedestrian and bicycle-friendly village centers. In conjunction with the town’s land use plan, clustering development in village centers will make pedestrian-oriented development more feasible and allow residents to rely less on cars for day-to-day needs.

There is also an opportunity for an enhancement of Grand Isle’s trail network. Current public trails include the 0.8-mile walking path at Grand Isle Recreational Park and the Ironwood Nature Trail at Grand Isle State Park. Due to the large amount of conserved land in Grand Isle, additional public access trails should be considered to connect the town’s natural areas.

Carpooling

From 2017 to 2022, 63% of Grand Isle workers worked outside of the county, and 80% of Grand Isle workers drove to work alone. Reducing single-occupancy vehicle trips is a key aspect of reducing road congestion and greenhouse gas emissions. There is a dedicated Park and Ride lot on Route 2 just south of the town border in South Hero, which has capacity for 15 cars and is marked on the state Park and Ride map. However, this lot is not well marked with signage, and the extent to which it is utilized for carpooling is unclear. Only 2.4% of Grand Isle residents carpooled to work in 2022 (US Census American Community Survey).

Table 4.4 Commuter Flow Data

Place of Employment	Number	%
Grand Isle Town	57	6.1%
Other Grand Isle Co.	86	9.1%
Burlington	216	23.0%
So. Burlington	122	13.0%
Essex Town	87	9.3%
Williston	69	7.3%
Colchester	62	6.6%
Winooski	27	2.9%
Other Chittenden Co.	45	4.8%
Franklin Co.	47	5.0%
Washington Co.	43	4.6%
Lamoille Co.	12	1.3%
Other Vermont	40	4.3%
Out of State	19	2.0%
Other	8	0.9%
Total Jobs	940	

Grand Isle Ferry

The Lake Champlain Transportation Company privately owns the Grand Isle Ferry. The ferry runs 24 hours a day from Grand Isle to Cumberland Head in Plattsburgh, providing a vital transportation and economic link between the states of Vermont and New York. The ferry provides service to cars, trucks, buses, and bicyclists. Other than the ferry, the next closest crossings of Lake Champlain are the Rouses Point Bridge 28 miles to the north and the Essex-Charlotte ferry 37 miles to the south. The ferry in Grand Isle contributes substantial additional auto and truck traffic to Route 2 and 314; the parking lot was recently improved to accommodate more vehicles and plans have been approved to include truck and bus lanes.

Public Transportation

There is currently no scheduled fixed-route bus service connecting Grand Isle to other communities in Vermont or New York. The nearest regular public bus service is the GMT Link Express, which runs four times daily from Burlington to St. Albans and stops at the Chimney Corners Park and Ride in Colchester. Because a car is required to drive the 15-mile distance from Grand Isle to Colchester, this benefit of this route is limited for Grand Isle Residents. Residents would greatly benefit from increased transit service to the Islands, since a significant number of Islanders regularly commute to Chittenden County for work, school, and medical services. The Town supports the expansion of public transportation in Grand Isle, including expansion of flexible and micro transit options.

Although no fixed-route bus service operates in Grand Isle, Champlain Islanders Developing Essential Resources (CIDER) receives funding from GMT to provide transportation services to elderly residents and residents with disabilities. CIDER provides rides to medical appointments, trips to the grocery store/pharmacies, and other support services that allow individuals to remain independent and continue to live in the islands. In 2023, CIDER transported 274 residents and made 4,886 trips.








While Grand Isle County has no direct rail service, three Amtrak routes have stops within 30 miles of Grand Isle and provide residents with access to regional rail travel. The *Vermont* provides runs daily from St. Albans and Essex Junction to Washington, D.C. The *Ethan Allen* provides daily service from Burlington to New York City. The *Adirondack* also runs daily from New York City to Montreal, with stops in Plattsburgh and Rouses Point, NY. Passenger air travel is available at the Patrick Leahy Burlington International Airport in South Burlington. The region is also served by the Franklin County State Airport, located in Highgate.

Map 4.5

Town of Grand Isle Transportation Map

LEGEND



Transportation Features

-  Federal Highway
-  State Highway
-  Class 2 Town Highway
-  Class 3 Town Highway
-  Class 4 Town Highway
-  State Forest Highway
-  Private Road

Boundary Features

-  Town Boundary

Surface Water Features

-  River, Stream or Brook
-  Lake, Pond or River



Vermont Coordinate System
 Transverse Mercator, NAD 83.
 For planning purposes only.



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 March 2024.

Location:
[z:/nrpc-gis/projects/county/grandisle/grandisle/townplan/townplan2024/grandisleplanmaps.aprx](https://www.nrpcvt.com/projects/county/grandisle/grandisle/townplan/townplan2024/grandisleplanmaps.aprx)

Energy

Goals and Objectives

1. Support energy conservation efforts and the efficient use of energy across all sectors.
2. Support the conversion of fossil fuel heating to advanced wood heating systems or electric heat pumps.
3. Maximize the weatherization of municipal buildings and support weatherization of residential households and commercial establishments.
4. Support local efforts to minimize vehicle miles traveled through fewer single occupancy vehicle (SOV) commute trips and exploring new and expanded public transit opportunities and solutions.
5. Promote carpooling through the use of formal and informal Park and Ride lots in the region and the GoVermont website (<https://www.connectingcommuters.org/>) which provides citizens information about ride share, vanpool, and park-and-ride options.
6. Support the efforts of CIDER in providing service to the community, including any effort to increase transit opportunities with CIDER or other transit providers.
7. Focus residential and commercial growth within and adjacent to the villages to enhance walkability and shorten trips between destinations.
8. Support the development and siting of renewable electricity generation resources in the town that are in conformance with the goals, strategies, and mapping outlined in the Enhanced Energy Plan in Appendix A. Development of electricity generation in identified preferred locations shall be favored over the development of other sites.
9. Support local farms and the local food system for its ability to use less transportation and other energy costs in getting from farm to table.
10. Encourage residents to conduct energy audits on their homes through the use of promotional media and education.

Energy Plan Overview

Vermont planning law states that municipal plans must include an energy strategy for the community. Such a strategy is intended to promote the efficient and economic utilization of energy. With the adoption of the 2025-2033 Town Plan, Grand Isle incorporated an “Enhanced Energy Plan” in conformance with 24 V.S.A. 4352 and provided in Appendix A. The enhanced energy plan takes the place of other energy-related plan requirements in 24 V.S.A. 4382. The Goals, Policies and Strategies from the Enhanced Energy Plan are provided in this document and in Appendix 4.

While it is recognized that energy supply and demand are directed largely by economic forces at the state, federal, and international levels, the Town’s land use planning impacts energy use. In theory, a landscape with a dispersed pattern of development collectively involves the use of more energy resources than a landscape with concentrated settlements. For example, the cost of providing adequate infrastructure and the number of vehicle trips is less when development is concentrated in walkable centers and the distance between jobs, public services and housing is small. The Town’s land use planning also has a role in promoting energy efficient siting and design of buildings and encouraging energy conservation and the use of efficient and renewable home and business energy systems.

Grand Isle Energy Snapshot:

- There is one utility that provides electricity to residents, Vermont Electric Co-op.
- The majority of residential buildings are heated with fuel oil (47%); other major sources are propane (33%) and wood (12%).
- The majority of renewable energy generated in Grand Isle today is from a 5MW community solar project owned and operated by Vermont Electric Co-op.

Achieving the State’s goal of having 90% of energy used powered with renewables by 2050, and the other energy goals in state statute, will be difficult. Grand Isle is committed to playing its part in working towards accomplishing these goals and in creating a more sustainable, less costly, and more secure energy future.

Cultural and Historic Resources

Goals and Objectives

1. Preserve historic buildings, historic structures, and archaeological resources in Grand Isle.

Grand Isle has three buildings on the National Register of Historic Places: the Hyde Log Cabin, the United Methodist Church, and the Gordon-Center House on West Shore Road. The Vermont Division for Historic Preservation conducted a building inventory in 1980 which identified 82 historic sites in Grand Isle. The list includes houses, farm properties, and camps throughout the town, all of which are listed on the State Register of Historic Places. For a list of the sites which are included in the State Register for the Town of Grand Isle, please refer to Appendix 4.

There are no regulations for historic buildings in the Town of Grand Isle. The Grand Isle Historical Society manages the Hyde Cabin Historic Site, maintains local artifacts, and sponsors programs on local history. In 2019, the Historical Society built the Worthen Barn to display local agricultural artifacts.

The State maintains an inventory of archeological sites across the State, including in Grand Isle. These areas are not listed publicly to protect these sensitive areas. Any archeological sites discovered in Grand Isle should be reported to the Vermont Division for Historic Preservation (VDHP).



5. ENVIRONMENT AND CLIMATE RESILIENCE

Lake Champlain, fertile soils, wildlife and scenic views are but a few of the town's irreplaceable natural resources integral to our unique rural character and island setting. Fields and woodlands, marshes, wetlands and streams, rocky shoreline and small islands provide a wide variety of habitats for a diversity of wildlife. Large areas of land remain undeveloped, including a total of approximately 1,044 acres of public and conserved land (VT Conserved Land Database 2024). As part of the planning process, the Grand Isle Planning Commission gathers and interprets data as a basis for setting policy on the preservation of Grand Isle's ecosystem and on how the Town should develop in accordance with the community's vision for the future.

Goals and Objectives

1. Preserve the natural and cultural environment, including lake waters and lakeshore, streams and wetlands, fields and woodlands, wildlife and natural habitats, natural features and landscapes, scenic views and vistas.
2. Development shall minimize impacts on the ecological function and value of the natural environment, including but not limited to wetlands, flood hazard areas, wildlife habitat, rare, threatened and endangered species, and prime agricultural soils.
3. Development shall comply with the requirements of the Vermont Shoreland Protection Program.
<https://dec.vermont.gov/assistance/permits/permit-navigator>
4. Agriculture shall comply with the Required Agricultural Practices, as defined by the Agency of Agriculture, and minimize adverse impacts on the environment.
5. Forestry management shall comply with the accepted silvicultural practices, as defined by the Commissioner of Forests, Parks and Recreation, including practices that are in compliance with the Acceptable Management Practices for Maintaining Water Quality on Logging Jobs in Vermont, as adopted by the Commissioner of Forests, Parks and Recreation.
<https://fpr.vermont.gov/forest/managing-your-woodlands/acceptable-management-practices>
6. The excavation of minerals and other deposits shall be regulated according to all state and federal guidelines. To ensure continuous erosion control during excavation operations and complete restoration of the landscape to its original condition appropriate contouring, site drainage and replanting as necessary shall be required.

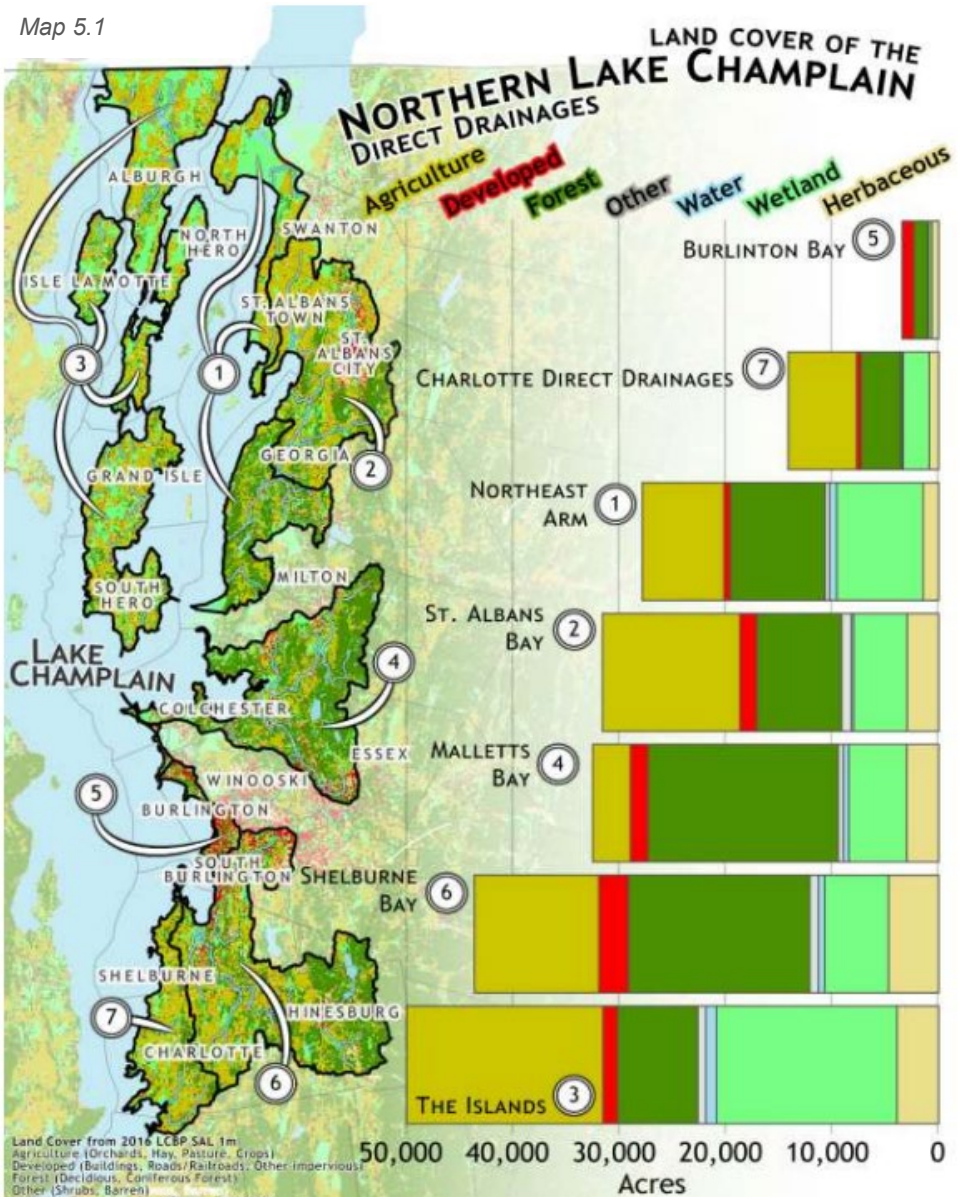
7. Support and coordinate with federal, state, and local efforts to control invasive plants and animals, including but not limited to harmful cyanobacteria, Eurasian milfoil and zebra mussels. <https://anr.vermont.gov/special-topics/invasive-species>
8. Cultivate a culture of emergency preparedness with adequate response planning in the face of increasing flood and extreme weather events.

Water Resources

Lake Champlain

The Town of Grand Isle lies within the Champlain Islands sub-basin of the “Northern Lake Champlain Direct” watershed. Lake Champlain is Grand Isle’s principal natural resource and main source of drinking water. It is integral to island life for residents and visitors as an attraction for outdoor recreation and scenic enjoyment and an economic driver for tourism and other businesses.

Unfortunately, too many nutrients (primarily phosphorus) and sediments are reaching Lake Champlain largely through non-point sources - agricultural, urban and road runoff, and eroding river channels. High concentrations of phosphorus cause algal blooms and excessive aquatic plant growth, which can cause water quality problems that harm fish and other organisms and limit the use and enjoyment of the Lake (Lake Champlain Basin Program).



Map Source: Basin 5 Tactical Basin Plan, 2020

Vermont is addressing phosphorus impairment through the implementation of a 20-year phased restoration plan for the Lake and its tributaries to meet an EPA-approved Lake Champlain Phosphorus Total Maximum Daily Load (TMDL) in accordance with the Clean Water Act. While some progress in reducing phosphorous loads has been documented, measured success in Lake Champlain will take many decades of continued efforts.

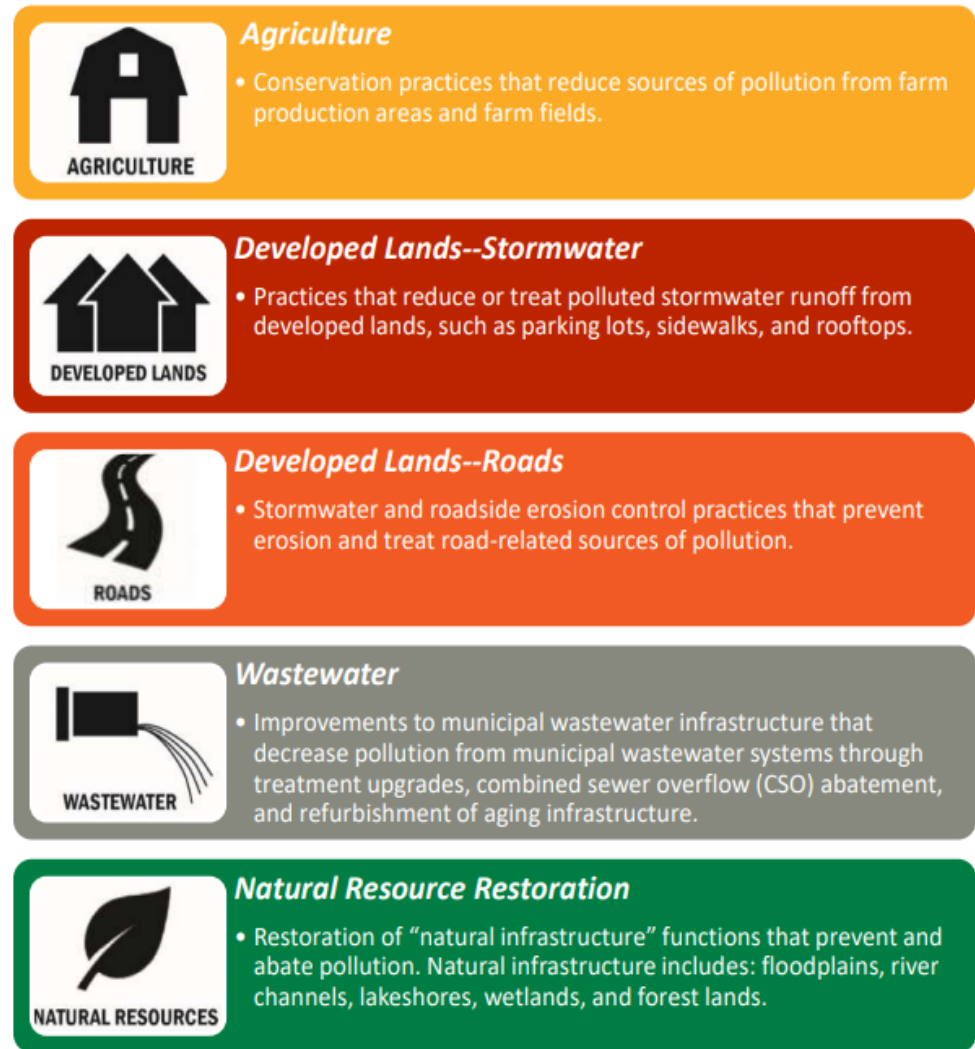
The Northern Lake Champlain Direct Drainages Tactical Basin Plan (2020) outlines strategies to restore and protect the Basin’s surface waters (see map). Projects in Grand Isle are focused on reducing agricultural and road runoff, and streambank and shoreline erosion. The plan supports and/or recommends the following in the Town of Grand Isle:

- Invasive management: The Vermont Agency of Natural Resources has supported the community in its efforts to harvest Eurasian watermilfoil (*Myriophyllum spicatum*) in Carry Bay.
- Better stormwater management, including compliance with General Permit 3-9050, which requires properties with 3 or more acres of impervious surface that have never had a stormwater permit or had one that was permitted under the 2002 stormwater rules or earlier to obtain permit coverage and retrofit their site to improve the level of stormwater treatment.
- Participation and compliance with the Municipal Roads General Permit intended to achieve significant reductions in stormwater-related erosion from municipal

Figure 5.1

Strategies for Managing Landscapes to Meet Total Daily Maximum Load (TMDL) in Lake Champlain

Source: Northern Lake Champlain Direct Drainages Tactical Basin Plan, 2020



roads, both paved and unpaved. This involves a customized, multi-year plan to stabilize the road drainage system and includes bringing road drainage systems up to basic maintenance standards, and additional corrective measures to reduce erosion as necessary to meet a TMDL or other water quality restoration effort.

- Compliance with the Shoreland Protection Act to minimize development that will cause shoreline erosion. The Act prohibits new clearing and development within 100 feet of the mean water level of the Lake (95.5 feet above sea level) and places limits on clearing and development from 100 to 250 feet from the mean water level. The intent of the regulation is to limit bank erosion, to protect shoreland habitat, and to improve water quality. https://dec.vermont.gov/sites/dec/files/wsm/lakes/docs/Shoreland/lp_ShorelandHandbook.pdf

Wetlands

Healthy wetlands are an essential aspect of environmental resiliency. During periods of high rainfall, wetlands store large quantities of water and discharge it slowly over time. Loss of wetland capacity makes streams more vulnerable to changes in flow during periods of flooding and drought. Wetlands also maintain water quality by absorbing and assimilating nutrients, and marshy areas provide important wildlife habitats for significant species.

The State of Vermont maps significant wetlands and classifies them based on value and function. Any activity in Class I and Class II is regulated and may require a permit from the State of Vermont in compliance with the Vermont Wetland Rules. The Army Corps of Engineers regulate Class III wetlands. Class I and II wetlands are mapped on the Vermont Significant Wetland Inventory (VSWI) maps; however, any wetland, whether mapped on the VSWI or not, with one or more of the following characteristics is a Class II wetland:

- The wetland is of the same type and threshold size as those mapped on the VSWI maps: i.e., open water (pond); emergent marsh; shrub swamp; forested swamp; wet meadow; beaver pond or beaver meadow; bog or fen; and is greater than 0.5 acres in size.
- The wetland contains dense, persistent non-woody vegetation or a prevalence of woody vegetation; is adjacent to a stream, river, or open body of water; and is over 2,500 square feet in size.
- The wetland is a vernal pool that provides amphibian breeding habitat.
- The wetland is a headwater wetland.
- The wetland contains a species that appears in the Vermont Natural Heritage Inventory (VNHI) database as rare, threatened, endangered or uncommon; or is an exemplary natural community as mapped by VNHI.

The VSWI Map (Map 5.2) identifies a number of Class II Wetlands throughout the town.

Map 5.3

Town of Grand Isle Special Flood Hazard Area and River Corridors

LEGEND

Flood Zones

-  Special Flood Hazard Area
-  River Corridor (50 ft. stream buffer)

Subwatershed Boundaries

-  Lake Champlain Direct - Main Lake
-  Lake Champlain Direct - Northeast Arm



Transportation Features

-  Federal Highway
-  State Highway
-  Class 2 Town Highway
-  Class 3 Town Highway
-  Class 4 Town Highway
-  State Forest Highway
-  Private Road

Boundary Features

-  Town Boundary

Surface Water Features

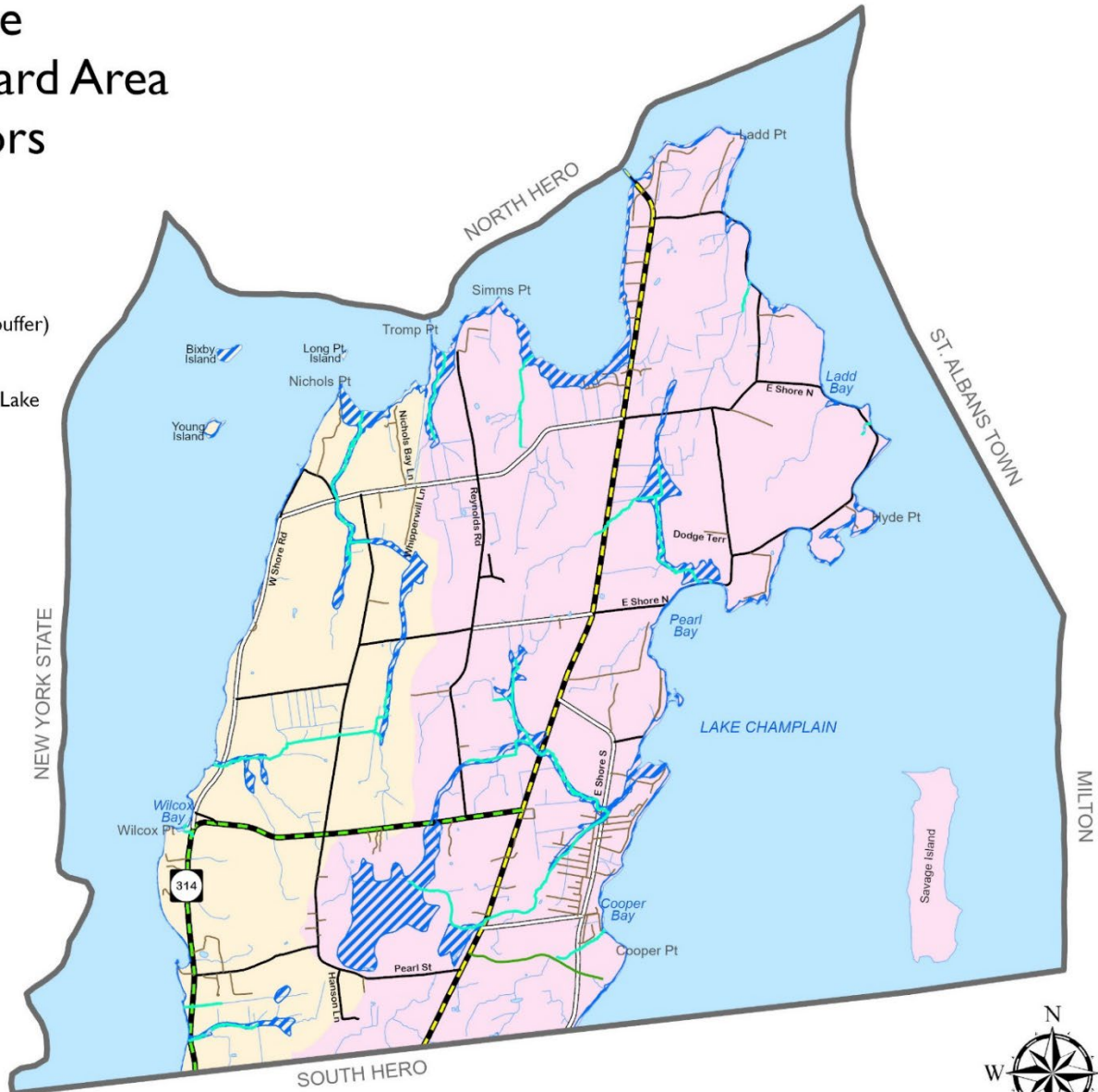
-  River, Stream or Brook
-  Lake, Pond or River

Vermont Coordinate System
Transverse Mercator, NAD 83.
For planning purposes only.



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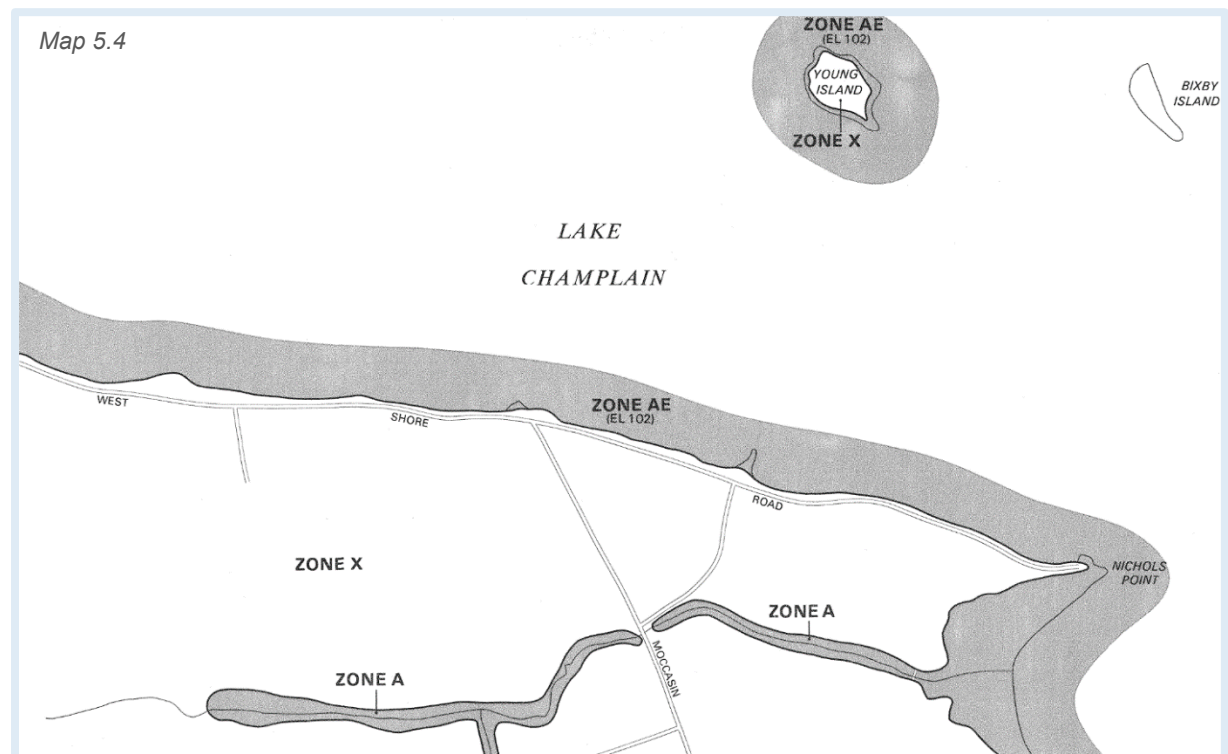
Climate and Flood Resilience

The very natural features that help to define the town's character are also susceptible to extreme weather events, significantly affecting island life. The changing climate is causing increased frequency and intensity of extreme weather events. It is in the town's best interest to factor climate change into land use planning to ensure better outcomes for property, shoreland and water quality, and save money that would be needed for recovery efforts. Floods are the most common natural hazard within the community and occur in every season of the year. Flooding in the spring is common and is caused by rainfall combined with snowmelt. Floods in late summer and fall are usually the result of above normal precipitation. Winter floods result from occasional thaws, particularly in years of heavy snow cover.

The primary flood threat facing the town is posed by inundation flooding in the Lake Champlain floodplain. The last time Lake Champlain exceeded the USGS Major Flood Stage Elevation (101.5 feet above Sea Level) was in 2011. During that flood Lake Champlain's waters reached a height of 103.27 feet above sea level (ASL) as measured at the USGS gage at the Echo Center in Burlington. The flooding was exacerbated by waves caused by high winds.

Special Flood Hazard Area and the National Flood Insurance Program

The National Flood Insurance Program (NFIP) provides a source of flood insurance for buildings in communities that choose to participate. To participate in the NFIP communities must administer regulations to



Excerpt from Flood Insurance Rate Map, June 3, 1988

Zone AE has a Base Flood Elevation (BFE), while the BFE must be determined for Zone A

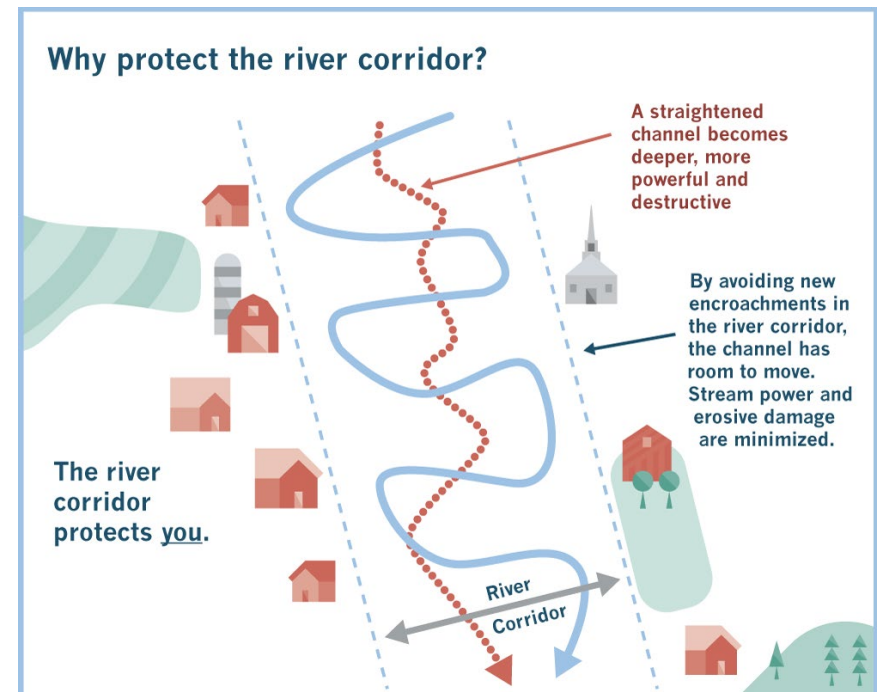
ensure that future development is safe from flooding. The Town of Grand Isle has floodplain regulations, which include standards specific to development in the Special Flood Hazard Area (SFHA), or 100- year floodplain, as delineated by FEMA on the Town's Flood Insurance Rate Maps (FIRM) with a base flood elevation (BFE). The SFHA will be inundated by the flood event having a 1-percent chance of being equaled or exceeded in any given year. Existing FIRMs and the Flood Insurance Study was published on June 3, 1988. A new version of the FIRM is expected to be released before the end of 2024, becoming effective in 2026. As new flood maps are released by FEMA, the Town will need to review their regulations to ensure they are at least minimally compliant with the NFIP. When doing so, the Town should consider opportunities to strengthen regulations in accordance with State of Vermont models that take a “no adverse impact” approach. This means that there are development standards to prevent an adverse impact on other properties. For example, adding fill without compensatory flood storage will likely increase flood risk on neighboring properties or roads.

Roughly 84 structures in Grand Isle are currently located in the 100-year floodplain. The location of private property in the floodplain has led to issues with unsecured personal property such as propane tanks. The Town should pay attention to ensure that lakeshore property owners located within or near the Special Flood Hazard Area take proper precautions against flooding. Such precautions should include securing propane or other fuel tanks in compliance with the NFIP, as well as securing any loose personal property that might get washed into the Lake during a flood.

River Corridors

Another type of flooding that occurs in rivers and streams is fluvial erosion. Fluvial erosion occurs when fast lateral and vertical movement of streams and rivers cause erosion of the bank. To identify areas prone to fluvial erosion hazards, the Vermont Agency of Natural Resources has identified River Corridors in all Vermont municipalities. River Corridors are based on the individual conditions of streams and rivers including topography and the existence of existing public infrastructure and are intended to capture the area full meander belt where the river may move over time. River Corridors are not mapped for streams that have a watershed of less than 2 square miles. Instead, the Agency has

Figure 5.2



Data Source: <https://floodready.vermont.gov/>

created a 50-foot buffer on each side of a stream with the intention of protecting stream stability and natural flow. All rivers and streams in Grand Isle have a surface area of less than 2 square miles and are therefore unmapped and are subject only to the 50-foot buffer requirement. River Corridor regulations currently apply only to Act 250-related land development and land development not regulated by municipalities (like agriculture). Grand Isle should consider adopting River Corridor maps and regulations as part of their development regulations.

Hazard Mitigation Planning

Planning for future flooding and other disaster events is important to ensure that a community is flood resilient. Grand Isle adopted a Local Hazard Mitigation Plan (LHMP) in 2024. LHMPs help identify potential hazard risks to the community and identify projects that can decrease the effects of potential hazards, such as the replacement of culverts or buyouts of properties with repetitive flood risk. Approval of a local hazard mitigation plan by FEMA may also lead to increased grant opportunities to implement identified projects and enable the Town to gain access to additional state and federal mitigation funding. Section 4, Emergency Preparedness, includes more information on the Town's plans and preparedness for responding to emergencies.

Emergency Relief and Assistance Fund

Adoption of both River Corridor regulations, an LHMP, along with adopting the Vermont Agency of Transportation's recommended Municipal Town Road and Bridge standards provides financial benefits to the Town in the event of a federally declared natural disaster under the Emergency Relief and assistance Fund (ERAF). Currently, the Town is eligible for the State to contribute 12.5% of the local match (25% of costs). The Town could increase the share paid by the State to 17.5% with the adoption of River Corridor regulations.

Planning for Climate Change

In Vermont as a whole, climate change is expected to bring increased precipitation, warmer average temperatures, and increases in the strength and frequency of storms (Vermont Climate Action Plan). In the Lake Champlain Basin, rising temperatures are expected to result in less ice cover and an increase in average annual precipitation and increased storm intensity. In the shorter term, increased heavy storms will likely increase flooding. In the long term, by 2100 the Lake's average level may rise as much as 1-2 feet (Lake Champlain Basin Program). Statewide insured losses are expected to increase 2-4% by 2050 as a result of climate change (Vermont Climate Action Plan - <https://climatechange.vermont.gov/about>).

The Town will need to plan for and adapt to these effects in order to reduce impacts to residents, infrastructure and property. Grand Isle is uniquely vulnerable to climate impacts because of its location on Lake Champlain and the high number of shoreland properties. The Town may want to consider developing a climate resilience plan to identify climate vulnerabilities. Many climate vulnerabilities will need to be addressed at the regional or State level, such as the resiliency of the electric grid against severe storm events.

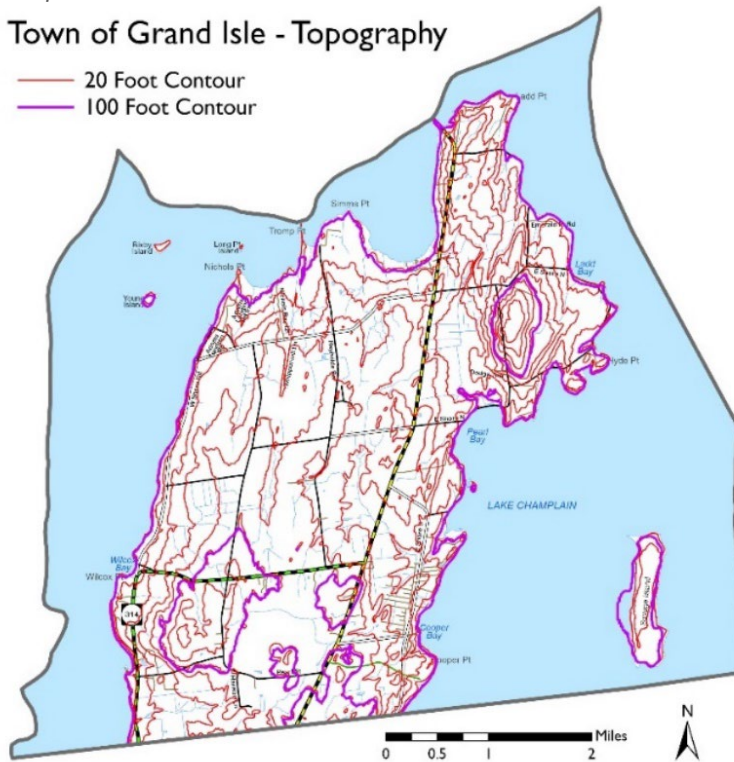
Topography

Grand Isle occupies the northern half of South Hero Island and includes Savage, Bixby and Young Islands. It is bounded on all sides by Lake Champlain except its southern boundary with South Hero and a bridge to the north connecting North Hero Island. Grand Isle is in the Champlain Lowland Physiographic Region, with a surface that is generally low and nearly flat, broken only by an occasional low elongate ridge or dome-like hill. The highest elevation is 260 feet on a rounded hilltop 1.3 miles northeast of the village center.

Map 5.5

Town of Grand Isle - Topography

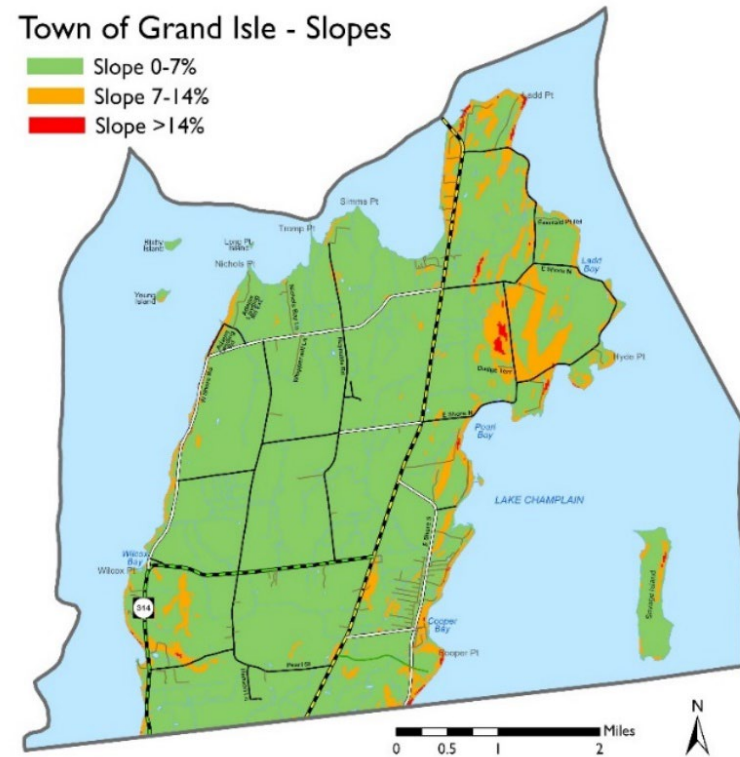
- 20 Foot Contour
- 100 Foot Contour



Map 5.6

Town of Grand Isle - Slopes

- Slope 0-7%
- Slope 7-14%
- Slope >14%



Soils and Earth Resources

Agricultural Soils

Grand Isle County has the highest percentage of prime agricultural soil (approximately 13 percent) than any county in the state. A soil survey conducted by the U.S. Soil Conservation Service in 1959 shows that soils in the county have a high natural fertility, including high fertility retention, high organic matter content, high available moisture content. Prime agricultural soils are a finite resource necessary for the continuation of agriculture in the community.

Earth Resources

The excavation of minerals and other deposits can be not only a potential economic benefit to the town but also a potential environmental liability. If erosion is not controlled during excavation, and if the landscape is not restored after excavation has ended, the ecology of the surrounding area may be irreparably damaged. Any potential excavation proposals within Grand Isle will be carefully reviewed according to local bylaws.

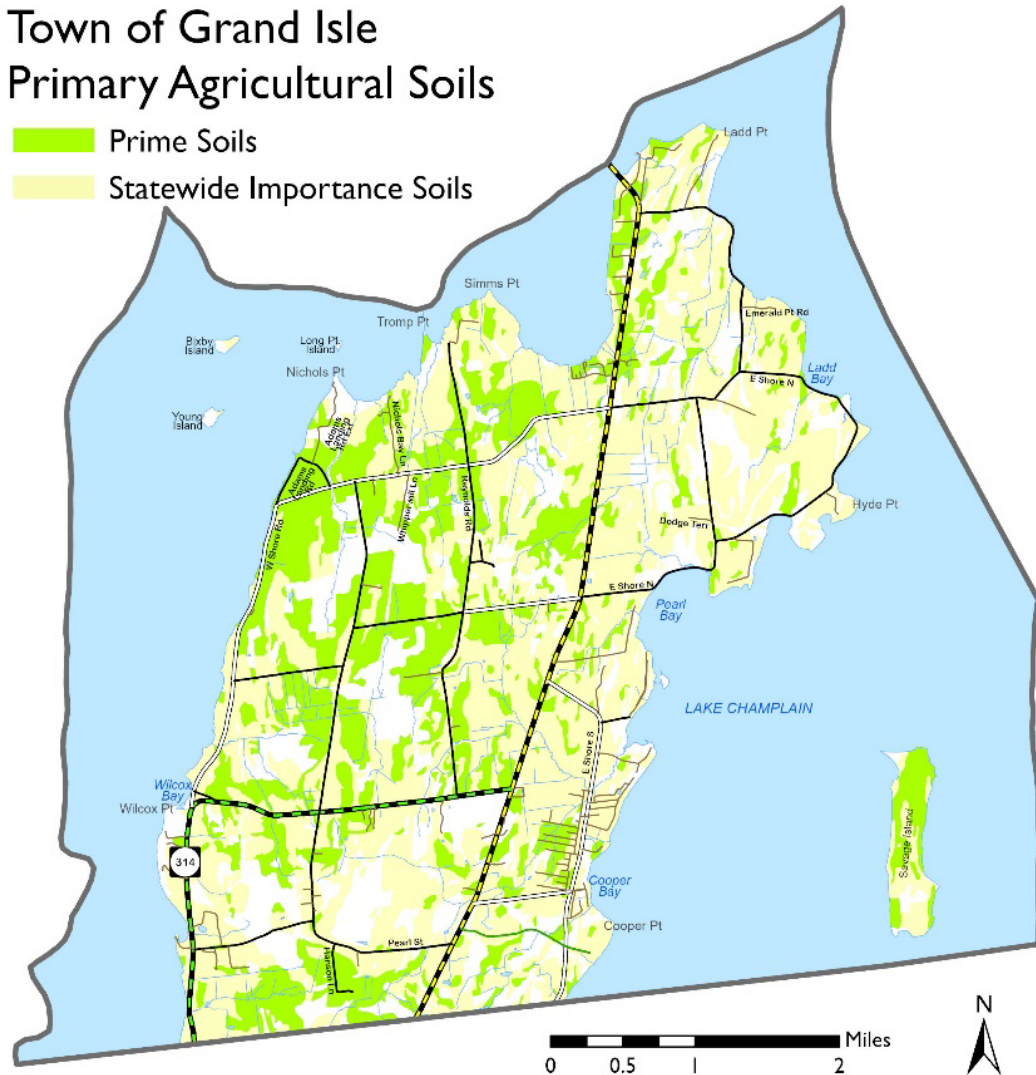
Air Quality

Air quality is generally high throughout Vermont, especially in rural communities such as Grand Isle. Motor vehicles are the largest source of air pollution in Vermont, which can create localized areas of poor air quality where traffic is congested. Air quality can also be

Map 5.7

Town of Grand Isle Primary Agricultural Soils

- Prime Soils
- Statewide Importance Soils



impacted by weather patterns which carry pollutants from other areas. All efforts should be taken to maintain good air quality in Grand Isle

Forest Integrity and Wildlife Habitat

The Champlain Valley is the most biodiverse region of Vermont, and many species found here require large areas of uninterrupted forest and wetland habitat to find the resources they need in their day-to-day lives. Development and sprawl have caused the fragmentation of habitat blocks into smaller, disconnected parcels that are not large enough to support many species. However, many uninterrupted areas of forest remain, and it is important to preserve them. The Agency of Natural Resources has mapped priority forest blocks across the state and encourages towns to use them as an aid in making land use decisions. Strategies can include limiting development to the periphery of large parcels, and preserving undeveloped corridors between habitat blocks to allow free movement of species between different areas of the town.

As shown on Map 5.8, Grand Isle has four large wildlife habitat blocks over 150 acres in area, and a number of smaller habitat blocks throughout the town. Several rare, threatened and uncommon species are found in these areas. The Town will work to preserve the connectivity of existing wildlife habitat areas to the greatest extent possible and avoid habitat fragmentation to ensure the continued biodiversity of the region.

Scenic Views, Vistas and Roads



Scenic views and vistas provide aesthetic pleasure to both residents and visitors. They are valuable resources which are linked to our personal well-being and the local economy and are an irreplaceable part of a community's identity. As a key aspect of the town's identity and draw for tourism, which contributes to the economic health of our community, the Town will continue to ensure these characteristics are valued and maintained with supportive planning and regulation.

Map 5.8




Town of Grand Isle Significant Species and Habitat Blocks

LEGEND

Significant Species

-  Rare, threatened or endangered species
-  Uncommon species

Habitat Blocks

-  0-75 acres
-  75-150 acres
-  150+ acres


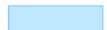
Transportation Features

-  Federal Highway
-  State Highway
-  Class 2 Town Highway
-  Class 3 Town Highway
-  Class 4 Town Highway
-  State Forest Highway
-  Private Road

Boundary Features

-  Town Boundary

Surface Water Features

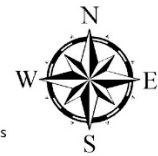
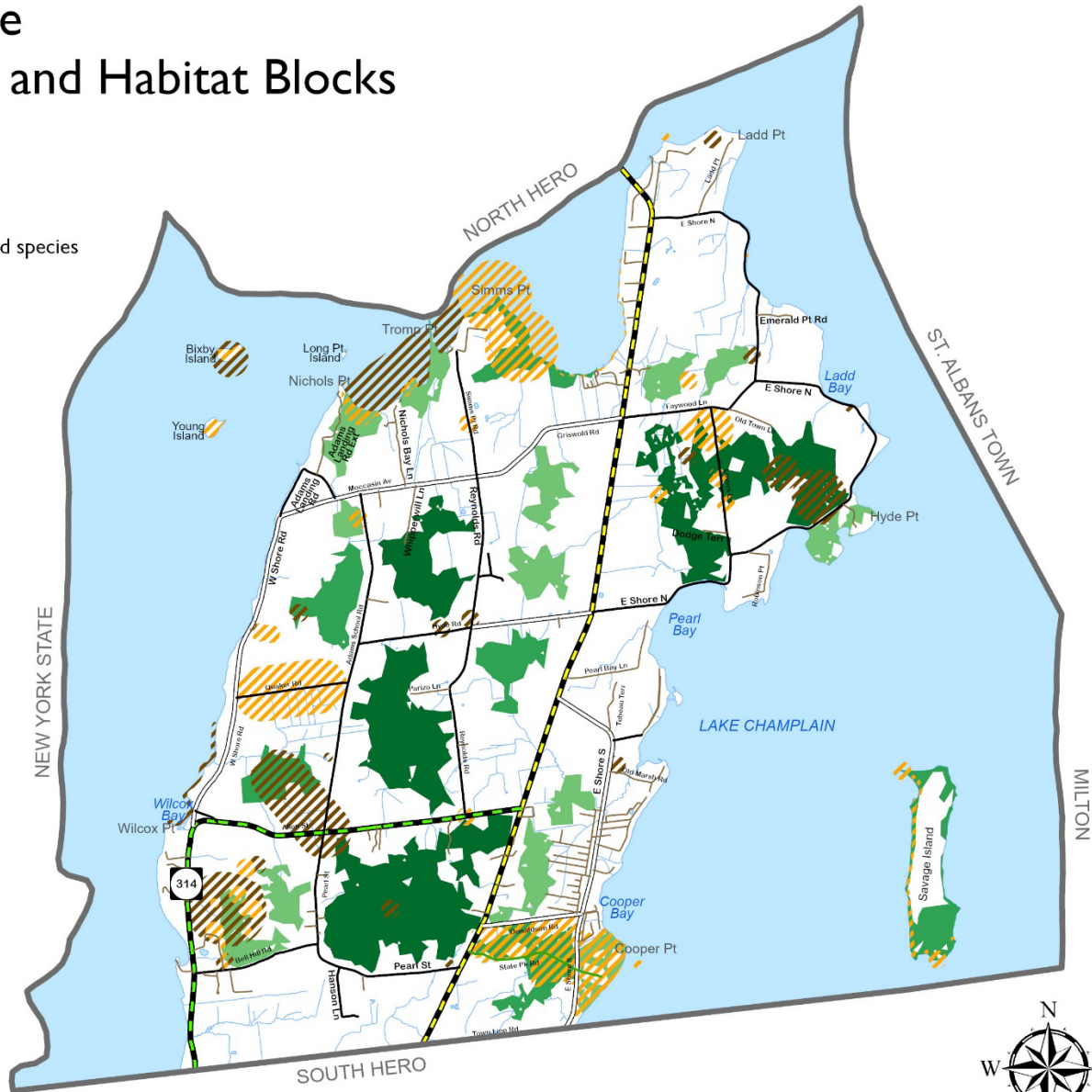
-  River, Stream or Brook
-  Lake, Pond or River

Vermont Coordinate System
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townplan/townplan2024/grandisleplanmaps.aprx



6. LAND USE AND DEVELOPMENT

Goals and Objectives

1. Protect and enhance environmental quality, natural and scenic assets and the rural island character of Grand Isle.
2. Promote development within the Grand Isle Designated Village Center that reinforces the village's importance as the town's social and cultural center.
3. Promote concentrated development in village and commercial districts and discourage strip development.
4. Protect and promote the continuation of agriculture, including areas of primary agricultural soils through development review standards.
5. Ensure land use and development does not adversely impact high priority forest blocks and habitat connectors.
6. To uphold public policies that balance development with the Town's ability to provide services.
7. Encourage home based businesses, local services and businesses that support recreation-based tourism, while still ensuring that rural residential character is preserved.
8. Support the continuation of the State's current use programs and efforts of the land trust organizations.
9. Participate in statewide regulatory proceedings such as Act 250 and Public Service Board (Section 248) applications.

Current Land Use Trends and Patterns

Land in Grand Isle is used primarily for agriculture or for single family residences, both year-round and seasonal. Around 70% of Grand Isle's land area is used for agriculture and single-family lots. The balance is used for businesses, apartments, mobile homes, utilities, or set aside for conservation. The acreage in agricultural use has declined in recent years. Several major farms have ceased active agricultural operations in the past few decades. However, new smaller and more diversified agricultural operations have started. According to the 2023 Grand List 29% of the total acreage in Grand Isle is used for agricultural purposes, compared to 34% in 2007. Most of the agricultural acreage in Grand Isle is devoted to haying, but dairy farming, orchards, vegetable and berry farming are being

practiced in the town. Additionally, there is a beef farm, vineyard and other diversified operations in Grand Isle. Agricultural and forestry landowners provide a public benefit by not developing their property and cost the town little in terms of municipal services. From popular scenic vistas to important wildlife habitat, these lands significantly contribute to the town’s pastoral character and quality of life.

Settlement in the town is typically spread out along the main roads and on the shoreline, with some light concentration around Grand Isle Village and Grand Isle Station. The overwhelming majority of development since 1980 has followed this pattern. Recent commercial development has occurred along Route 2 in the area zoned for commercial and

industrial development at the intersections of Route 2 and 314. A small number of individual businesses are scattered throughout the town, and many home occupations are operating as well, although the exact number is unknown. Overall, the number of small-scale businesses in the community that provide goods and services to residents is limited. This provides an opportunity for innovative small businesses and services to open that would serve the community and contribute to the economy of the town.

Grand Isle has experienced a steady increase in residential development since the 1990s, primarily generated by the growing number of workers commuting to Chittenden County. Land use trends in neighboring communities parallel those in Grand Isle. Conversion of seasonal dwellings to year-round housing continues to occur and has been one component of the population growth. The convenience of commuting off island, the increase of home occupations and ease of telecommuting due to the availability of technology in addition to Grand Isle's unique quality of life will continue to create a demand for growth in the future.

Table 6.1: Grand Isle Town Land Cover (National Land Cover Database, 2022)

	Acres	Percent
Agriculture	4,845	40.9%
Crops	858	7.3%
Hay	3,976	33.6%
Pasture	10	0.1%
Tree Canopy	4,384	37.0%
Grass/Shrubs	2,182	18.4%
Other Impervious	189	1.6%
Roads	134	1.1%
Buildings	87	0.7%
Bare Soil	13	0.1%
Total	11,832	100.0%

Table 6.2: Grand Isle Town Land Use by Grand List Category (2022)

	Acres	Percent
Residential	5,729	50.4%
Apartment	50	0.4%
Single-Family	4,316	38.0%
Mobile Home	1,217	10.7%
Seasonal	146	1.3%
Commercial	241	2.1%
Agricultural	3,331	29.3%
Conservation	982	8.6%
Electric Utility	57	0.5%
Miscellaneous	1,019	9.0%
Total	11,360	100%

Map 6.1

Town of Grand Isle Current Land Cover

Based on Satellite Imagery

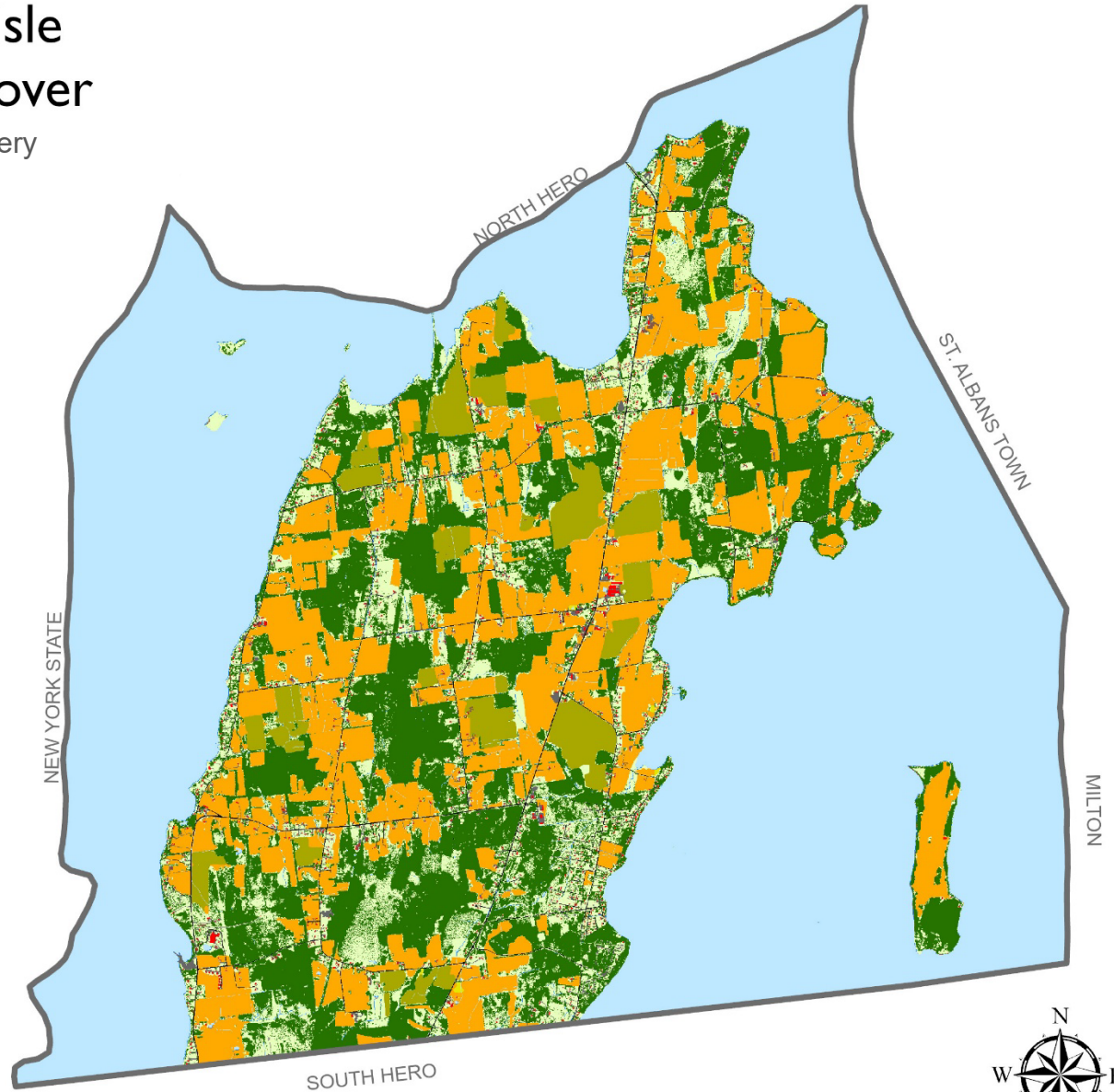
LEGEND

Current Cover

- Tree Canopy
- Grass/Shrubs
- Bare Soil
- Buildings
- Roads
- Other Impervious
- Agriculture - Crops
- Agriculture - Hay
- Agriculture - Pasture
- Water

Boundary Features

- Town Boundary

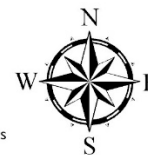


Vermont Coordinate System
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March 2024.

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Map 6.2

Town of Grand Isle Current Land Use

Based on Grand List Categories

LEGEND

Current Land Use

- Residential Apartments
- Residential Single Family
- Residential Mobile Home
- Residential Seasonal
- Commercial
- Agricultural
- Conserved Land
- Electric Utility
- Miscellaneous

Source: 2023 Grand List Property Categories, Current Use Parcels (Agricultural), Vermont Protected Lands Database (Conserved Land)

Boundary Features

- Town Boundary

Surface Water Features

- River, Stream or Brook
- Lake, Pond or River

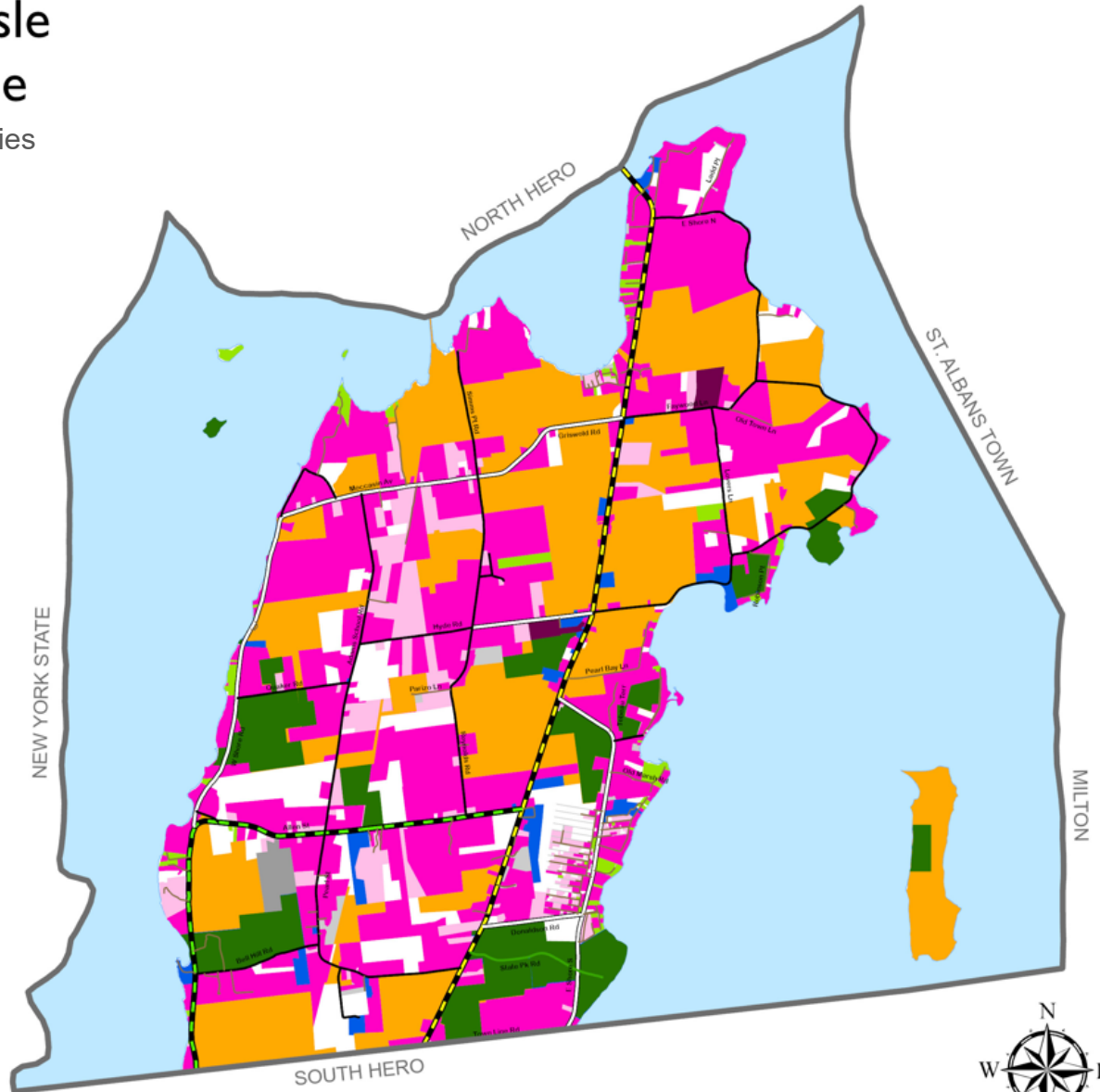
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Future Land Use and Development

Land use in Grand Isle is regulated through Zoning Bylaws and Subdivision Regulations according to a Zoning Map that delineates six (6) zoning districts and one (1) overlay district (Table 6.3). This section includes purpose statements and a map for proposed land use planning areas, which should be used as a basis for future zoning updates (proposed land use areas are listed in Table 6.4 and mapped on Map 6.3). The proposed land use planning areas identify land for residential, commercial, light industrial, agricultural, recreation, civic and conservation areas. The land use areas further the character of the existing settlement pattern and vision of this plan, including that development shall not exceed the capacity of the lands, waters, or the towns facilities and services.

The land use areas in this section propose some changes to the current zoning map to further the vision and goals of this plan and designate the direction of future land use within the town. The changes include eliminating the Commercial Recreation Shoreline Land Use Area and the Residential Shoreline Land Use Area and replacing it with a single Shoreline Land Use Area, in addition to adding Grand Isle Station to the Village Land Use Area. The shoreline changes were made to better align the land use areas with the goals of this plan by proposing continued residential, recreation and tourism-related development in conformance with the character of the area but limiting heavier commercial uses. Grand Isle Station has been added to the Village Land Use Area to allow for compact village scale mixed use development in conformance with the historic settlement pattern.

Table 6.3: Grand Isle Current Zoning Districts

	Acres
Village District	167.72
Commercial and Industrial Light District	61.20
Rural Residential and Agricultural District	8,439.87
Commercial Recreation Shoreline District	131.23
Residential Shoreline District	1,060.78
Small Off-Shore Island District	229.65
Flood Hazard Overlay	538.64

Table 6.4: Grand Isle Proposed Land Use Areas

	Acres
Village	335.44
Commercial and Industrial	61.20
Rural Residential/Agricultural	8,272.15
Shoreline	1,192.01
Small Off-shore Island District	229.65
Flood Hazard Overlay	538.64

Map 6.3

Town of Grand Isle Proposed Land Use Map

LEGEND

Future Land Use Planning Areas

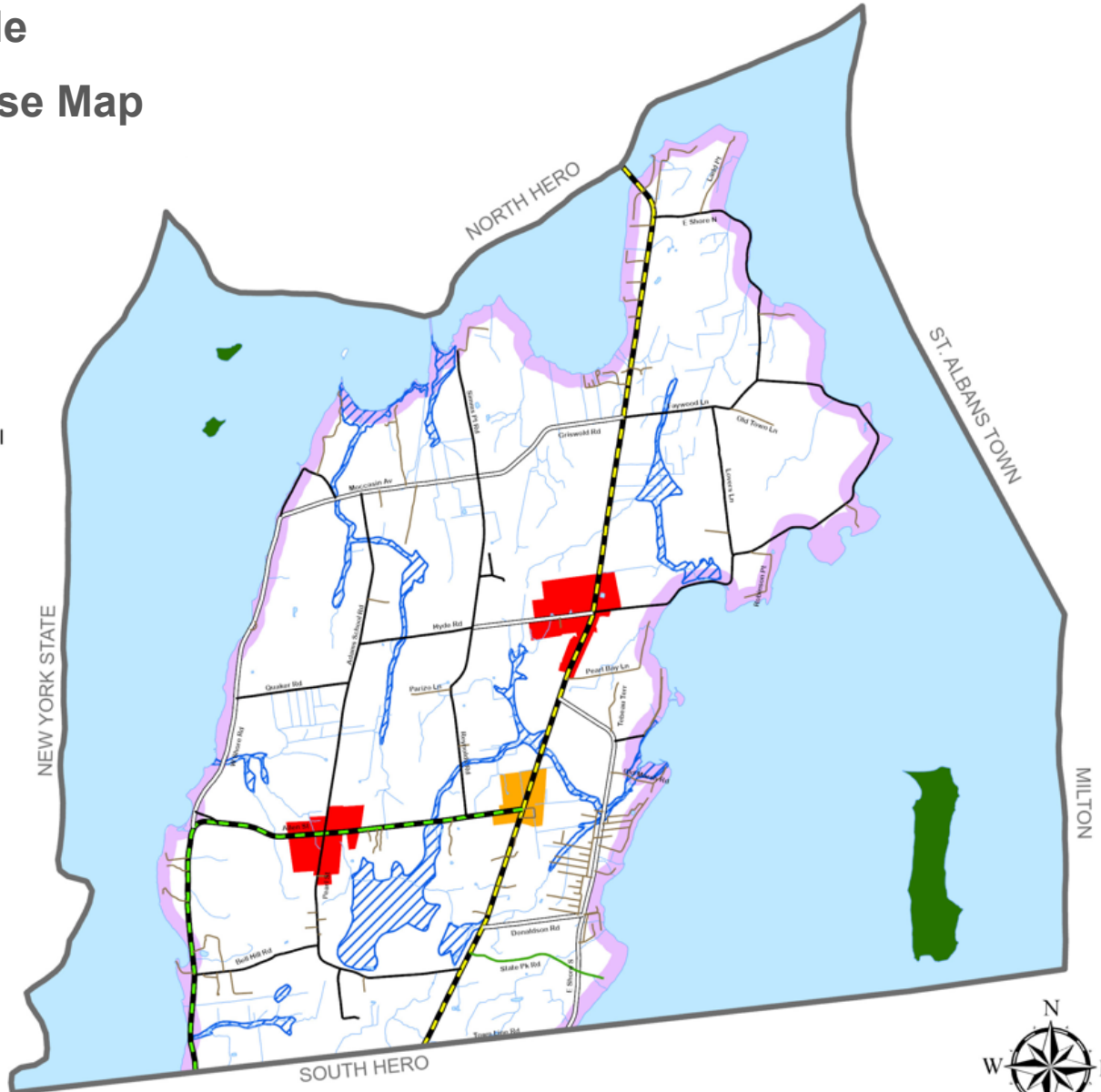
- Village
- Commercial / Light Industrial
- Shoreland
- Rural Residential / Agricultural
- Small Off-shore Islands
- Flood Hazard Area

Boundary Features

- Town Boundary

Surface Water Features

- River, Stream or Brook
- Lake, Pond or River



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Proposed Land Use Area Purpose Statements

Village Land Use Areas

Grand Isle Village and Grand Isle Station

The purpose of the Village Land Use Areas is to support the role of historic Grand Isle Village and Grand Isle Station as a focus of activity in the community and to provide for residential, commercial, and other compatible development to serve the needs of the residents. The Village Land Use Areas help maintain the traditional social and physical character of the villages, including historic and scenic resources.

The Village Land Use Area includes Grand Isle Village near the intersection of U.S. Route 2 and Hyde Road, which is currently zoned as Village. This plan proposes that the Village Land Use Area also include Grand Isle Station at the intersection of Allen Road/Vermont Route 314 and Adams School Road/Pearl Street. Development in the Village Land Use Area should be zoned mixed use, including both limited intensity commercial and residential. Commercial enterprises that meet the needs of residents and locals are encouraged but should remain small-scale and compatible with mixed commercial/residential uses and the concentrated historic village character. Specifically, business types that increase the town's tax base, support recreation, lake and agriculturally based tourism, and that provide services and facilities that are needed by residents of the town and surrounding communities are encouraged.

Any new development shall be designed to preserve the historic, natural, and cultural character of the villages, increase pedestrian and bicycle accessibility and to minimize curb cuts. The current zoning regulations have a minimum lot size of one acre throughout all zoning districts in the town. The Planning Commission will consider reducing the minimum lot size to less than an acre in the Village Land Use Areas to better reflect a concentrated village center. Septic feasibility is a major barrier to development in Grand Isle, which limits soil-based wastewater management capacity. Development regulations should encourage and require where possible shared wastewater treatment to retain and build upon a pattern of concentrated uses.

Commercial and Industrial Land Use Areas

The purpose of the Commercial and Industrial Land Use Areas is to delineate appropriate areas for larger-scale businesses that are compatible with mixed commercial/residential uses and the town's rural character. Development in this district allows for mixed use, including both commercial and residential, however a higher intensity of development is allowed in these areas and may be moderate to

heavy, but will not exceed the capacity of the lands, waters, facilities or services located within the immediate area. The intention is to encourage industrial and commercial growth without harming Grand Isle's quality of life by targeting environmentally sound industry. Businesses that serve and employ town residents will add to the sense of community by limiting the need to travel outside of Grand Isle for necessities. Tourism and recreation related industries are also encouraged. It is a goal that businesses locating here provide a living wage and consistent employment opportunities allowing residents in the area to afford the cost of living and to be financially sustainable.

The Commercial and Light Industrial Land Use Area is at the intersection of State Highway 314 and U.S. Route 2. Existing commercial development in this district includes an excavation contractor, the Sherriff's Department and a propane distributor. The Planning Commission should evaluate whether to make the area larger to create more development capacity.

Future development should be planned to minimize uses that would impact smooth traffic flow on U.S. Route 2, including minimizing curb cuts. State Highway 314 provides an attractive alternative to commercial development along U.S. Route 2. There is good access to U.S. Route 2 in both directions, and to the ferry to New York State. There is already substantial pre-existing commercial activity along this road and relatively sparse residential development. To maintain a smooth flow of traffic, the Town should plan for anticipated increases in the number of motor vehicles traveling in this corridor.



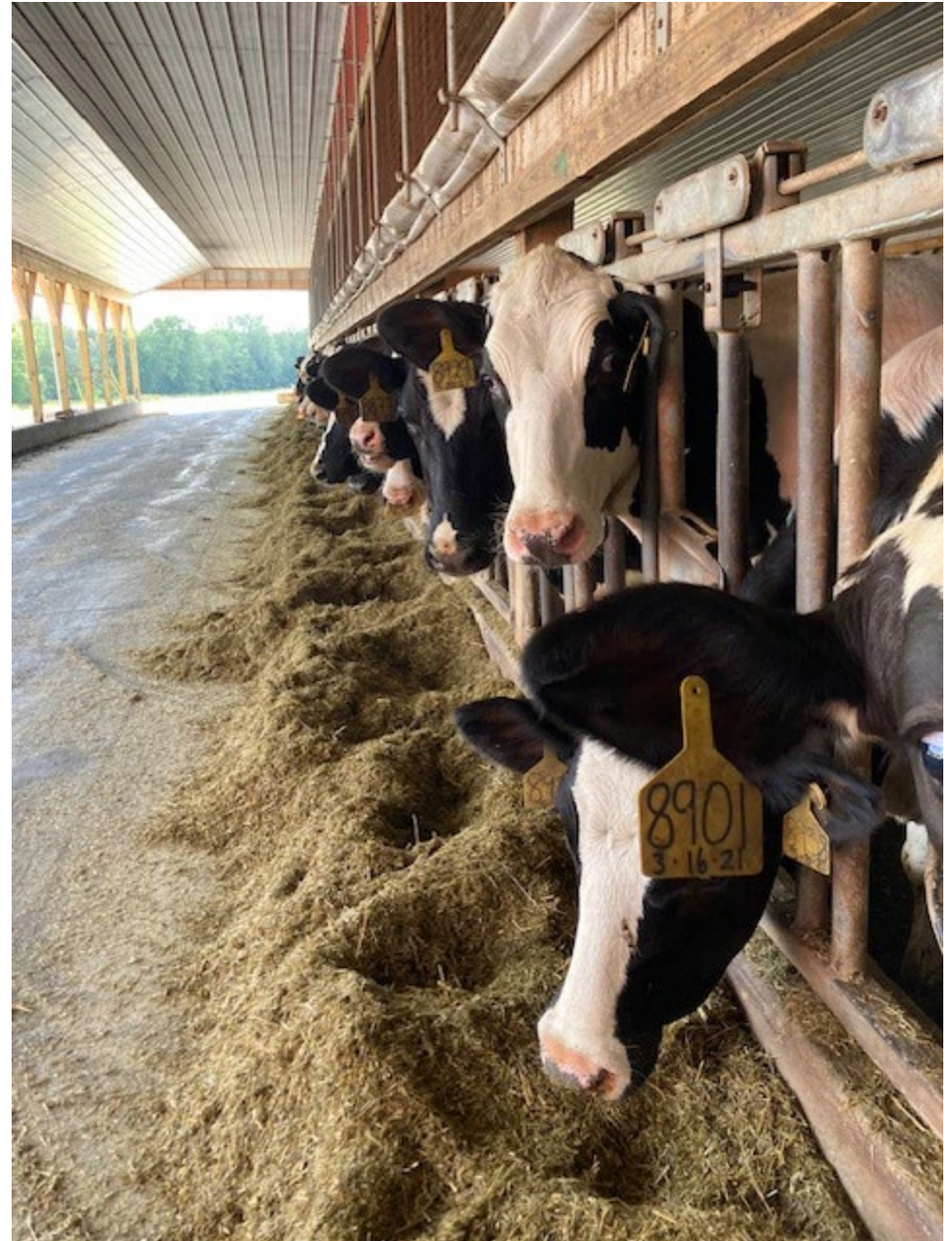
Rural Residential and Agriculture Land Use Area

The purpose of the Rural Residential and Agricultural Land Use Areas is to recognize lands with an economic and physical capability for agriculture, while also providing areas for low-density rural residential development and some limited commercial development. This future land use area encompasses approximately 90% of the Town and therefore drives the town's rural agrarian image. Land shall remain rural in nature, keeping high impact uses in the Village and Commercial and Light Industrial Areas. In planning for these areas,

we recognize current land use conditions; specifically, that residential and small-scale home-based businesses and commercial uses exist throughout the district in a way that retains the rural agrarian character, preservation of wetlands, forest and conservation areas and allows for thriving agricultural enterprises of all sizes. The Town's regulations shall enable site design and development review standards that allow for clustered development on smaller lot sizes and limited development roads. The least amount of land possible should be developed, and large contiguous expanses of agricultural and forested land and other important open spaces shall be protected.

The current zoning bylaws allow most commercial uses with conditional use review in the Rural Residential and Agricultural District. This may lead to sprawl and unintended impacts on rural character, traffic and agricultural viability. The Planning Commission should review the commercial uses allowed (permitted and conditional) in this district to confirm they are appropriate and that there are sufficient conditional use standards for the Development Review Board to apply in ensuring that commercial development conforms to the purpose and intent of this land use area.

There are opportunities to preserve agricultural and other conversation lands, including the State of Vermont's "Current-Use Program" which taxes agricultural and forestry property according to its use rather than its full market value. Property tax revenues lost to the town are reimbursed by the State. This program is administered by the Property Valuation and Review Division of the Vermont Department of Taxes and includes the agricultural



land program, forest land program, conservation land, and farm buildings use appraisal. Land Trust programs also provide landowners the option of selling the development rights to their land, placing it in a conservation easement in perpetuity. The purpose of these programs is to keep agricultural and forested land in production, and to slow development of working lands. In each program, the property must remain in agriculture or forestry use to receive benefits.

Shoreline Land Use Areas

Shoreline Land Use Area

The purpose of the Shoreline Land Use Area is to provide for residential and recreational uses at a density appropriate to the physical capacity and capability of the land, and which is compatible with the existing character of already developed areas. Lakeshore residential development should include a vegetated buffer and be planned in a manner that will have the least amount of impact possible on shoreland erosion and emphasize preservation of the natural features and rural character of the shoreline. The Shoreline Land Use Area includes all of those areas along the Lake Champlain shoreline which are located between the 95.5-foot lake level and a line 500 feet back from the 95.5-foot lake level. Development in the Shoreline Land Use Area shall comply with the Vermont Shoreland Protection Program and the Flood Hazard Area Regulations, as applicable.



Small Off-Shore Islands Land Use Areas

The purpose of the Small Off-Shore Islands Land Use Areas is to protect small islands which are undeveloped or poorly suited for development. The islands within this District are recognized as scenic natural resources that provide irreplaceable habitats for wildlife.

Low density agricultural, residential, recreational, conservation and wildlife management activities are permitted or conditionally permitted provided adequate drinking water, wastewater management and emergency service access is possible. Development shall maintain and enhance the existing natural environment. No development is permitted that in any way would alter the existing topography or geology.

Flood Hazard Land Use Area

The Flood Hazard Land Use Area designation is required for a town to participate in the National Flood Insurance Program. Included in this district is all Lake Champlain shoreline up to and including the Base Flood Elevation (BFE), and certain other areas, such as swamps and small streams that are below the BFE, which are indicated in the most recent Federal Emergency Management Agency (FEMA) Flood Insurance Study and Flood Insurance Rate Maps.



The purpose of the Flood Hazard Area Land Use Area is to promote public health, safety and general welfare, to prevent increases in flood damage caused by development on land within flood hazard areas, and to minimize public liability due to floods. Uses in flood hazard areas should be restricted to agriculture, conservation and outdoor recreation. The construction or use of any related structures or buildings, water or sewage facilities, roads, or land alteration within this District shall follow current bylaws.

7. PUTTING THE PLAN INTO ACTION

The previous chapters of this plan outlined goals and objectives for guiding future sustainable development in Grand Isle. To have an effective town plan, it is essential that the recommendations contained within it are implemented. Implementation takes a variety of forms, from amending bylaws and town ordinances to collaborating with community groups and organizations on new projects. While many policies can be implemented by the Selectboard, implementing goals and strategies requires an ongoing planning and community engagement process. This chapter identifies available tools, strategies, and opportunities that will assist the community in building its vision for the future. It is important to periodically review the plan to prioritize implementation steps and to ensure that all recommendations are being considered.

Table 7.1 – Table of Plan Implementation Strategies

Line	Plan Section	Implementation Strategy	Timing	Responsibility
Ongoing: Worked on from each year. Short Term: Completed by 2033. Medium Term: Completed by 2040.				
ENGAGE				
1	Plan Function	Ensure all public meetings are following the Vermont Open Meeting Law, including maintaining municipal websites with information on municipal governmental operations and opportunities to participate.	Ongoing	Selectboard
2	Plan Function	Recruit new volunteers for municipal board and committees and for fire fighters and rescue squad responders.	Ongoing	All town departments
REGULATE				
3	Land Use/ Energy	Review development regulations for wind turbines to ensure consistency with State statute and consider whether to adopt a municipal solar screening ordinance.	Short	Planning Commission

Table 7.1 – Table of Plan Implementation Strategies

Line	Plan Section	Implementation Strategy	Timing	Responsibility
Ongoing: Worked on from each year. Short Term: Completed by 2033. Medium Term: Completed by 2040.				
4	Land Use	Review, revise and update the Grand Isle Zoning Bylaws and Subdivision Regulations to bring them into conformity with all Vermont State Statutes (Act 47 of 2023 and Act 181 of 2024), and to implement all policies and recommendations contained in this town plan.	Short	Planning Commission
5	Land Use	Evaluate lot size and density requirements during the Zoning Bylaw and Subdivision Regulation update. Consider reducing allowed density in agricultural/rural residential areas and increasing allowed density in village and commercial districts.	Short	Planning Commission
6	Land Use/ Economy	Review the commercial uses allowed as conditional uses in the Zoning Bylaws to confirm consistency with district purpose and vision.	Short	Planning Commission
7	Land Use/ Energy/ Natural Resources	Consider limits on the length of driveways and dead-end development roads to limit impacts on resource lands and to avoid extra mileage and increased cost of service provision.	Short	Planning Commission
8	Land Use/ Transportation	Consider incorporating standards in the Zoning and Subdivision Regulations that require new roads or reconstruction of existing roads to include a sidewalk or multi-use path.	Short	Planning Commission, Selectboard, Highway Department
9	Land Use/ Natural Resources	Review current Flood Hazard Zone district standards in the Grand Isle Zoning Bylaws and Subdivision Regulations for compliance with National Flood Insurance Program (NFIP) minimum standards. Consider adopting higher standards for this district.	Short	Planning Commission
10	Land Use/ Natural Resources	Consider incorporating River corridor regulations into the Grand Isle Zoning Bylaws and Subdivision Regulations.	Short	Planning Commission
11	Recreation	Control vandalism at the park by hiring a park ranger and installing cameras.	Short	Recreation Department, Selectboard

Table 7.1 – Table of Plan Implementation Strategies

Line	Plan Section	Implementation Strategy	Timing	Responsibility
Ongoing: Worked on from each year. Short Term: Completed by 2033. Medium Term: Completed by 2040.				
EVALUATE/STUDY/PLAN				
12	Economy/ Facilities and Utilities	Investigate funding and opportunities for community wastewater/septic such as a cluster system or alternative methods for onsite treatment.	Medium	Planning Commission, Selectboard, Highway Department
13	Emergency Management	Maintain a current Local Hazard Mitigation Plan (HMP). The current plan will expire in 2029.	Short	Selectboard
14	Emergency Management	Adopt a Local Emergency Operations Plan each year.	Ongoing	Emergency Management Director, Selectboard, GICMAA
15	Energy	Explore opportunities to generate local, community-scale, and clean energy such as wind, solar, geothermal, or a wood-fired district heating facility.	Ongoing	All town departments
16	Facilities and Utilities/ Energy	Conduct energy audits on any remaining municipally owned buildings and take subsequent action such as weatherization retrofits to improve efficiency.	Short	Planning Commission, Selectboard
17	Historic and Cultural Resources	Using the Vermont State Register of Historic Places Inventory as a reference guide, create a list of the town’s historic sites. The Vermont Division for Historic Preservation can supply the town with the criteria for carrying out such an inventory. This inventory should include, but not be limited to, buildings, farmscapes, archaeological and other historic sites, and any and all sites, structures and features which identify and contribute to the identity of the town and the broad patterns of its history. A local list might include local sites not deemed significant enough to be included in the State Inventory.	Ongoing	Planning Commission, Historical Society
18	Recreation	Investigate ways to increase public use of town lake front and beach area.	Short	Planning Commission, Selectboard, Recreation Department

Table 7.1 – Table of Plan Implementation Strategies

Line	Plan Section	Implementation Strategy	Timing	Responsibility
Ongoing: Worked on from each year. Short Term: Completed by 2033. Medium Term: Completed by 2040.				
19	Recreation	Identify and/or create a community recreation center, including recreation office space.	Short	Planning Commission, Selectboard, Recreation Department, Library
20	Recreation	Investigate the possibility of utilizing the Grand Isle State Park for recreational purposes during those months of the year that the park is closed and not operated by the State.	Short	Recreation Committee
21	Telecommunications	Explore opportunities offered through Comcast and the State to bring better telecommunications technology to Grand Isle.	Ongoing	Northwest Fiberworx
22	Transportation	Identify locations in town that are in need of sidewalk or multi-use paths to improve and increase transportation options.	Short	Planning Commission, Highway Department
23	Transportation	Continue to work with towns and organizations within the region to establish a formal commuter Park and Ride lot.	Short	Planning Commission, Selectboard
BUDGET / FINANCE				
24	Facilities and Public Services	Identify equipment and facilities that need to be upgraded and develop methods of financing the replacement. Consider doing this in the format of a Capital Budget and Program.	Short	All town departments, Selectboard
25	Land Use/ Facilities and Public Services	Consider doing municipal budgeting and planning for capital expenditures with a formal Capital Budget and Program (24VSA §4430), which would enable the DRB to require the phasing of development or subdivisions and for the Selectboard to develop and impact fee ordinance (24VSA §4443).	Medium	Planning Commission, Selectboard
26	Facilities and Public Services	Expand the pool of certified library personnel and volunteers to increase operating hours.	Short	Library
27	Facilities and Public Services	Review the Community Facility and Services Plan periodically to assess progress on the recommendations within the chapter.	Ongoing	Planning Commission

Table 7.1 – Table of Plan Implementation Strategies

Line	Plan Section	Implementation Strategy	Timing	Responsibility
Ongoing: Worked on from each year. Short Term: Completed by 2033. Medium Term: Completed by 2040.				
28	Recreation	Investigate alternative funding options for recreation.	Short	Recreation Department
29	Land Use/ Economic Develop	Seek Village Center Designation for Grand Isle Station.	Short	Planning Commission
EDUCATE AND INFORM				
30	Historic and Cultural Resources	Increase town residents’ awareness of the Vermont State Register of Historic Places and whether a property they own is listed in the register.	Short	Historical Society, Zoning Department, Planning Commission
31	Facilities and Public Services	Provide information and educational opportunities to residents regarding alternative wastewater management practices.	Ongoing	Zoning Department
32	Land Use/ Transportation	Raise awareness of safety issues related to farm vehicles and equipment as well as livestock on roads shared by other motorists.	Short	Selectboard, Highway Department
FACILITATE				
33	Recreation	Increase summer recreation programs for adult and youth.	Short	Recreation Department
34	Utilities and Public Services	Encourage increased utilization of the central recycling facility operated by the Town.	Short	Transfer Station, Selectboard, town Clerk
DEVELOP/CONSTRUCT				
35	Facilities and Public Services	Construct a new library, multi-purpose community space and town green on the town’s Hyde Road property.	Short	Planning Commission, Selectboard, Library
36	Facilities and Public Services	Develop a comprehensive master plan and engineered site plan for town’s Hyde Road property to include recreation, municipal offices and senior services.	Medium	All town departments
37	Energy/Transportation	Build EV charging capacity by utilizing grant-funded opportunities.	Short	Selectboard, Planning Commission,
38	Recreation	Continue to improve playground, ballfields and recreational facilities at Donaldson Park	Short	Recreation Department
39	Recreation	Make and post new cross country ski trails.	Short	Recreation Depart, Selectboard, Volunteers

8. COMPATIBILITY AND CONSISTENCY

Goals and Objectives

1. Consider the use of resources and the consequences of growth and development for adjacent communities, the region and the State as part of developing and implementing this plan.
2. Work creatively together with adjacent communities to develop and implement this plan.
3. Continue to participate in regional planning efforts including transportation planning and energy planning.

The Town of Grand Isle is a community on Lake Champlain within the County of Grand Isle. Grand Isle borders the Town of South Hero to the south, and the Town of North Hero is across the drawbridge to the north.

To the west of the town, across what is commonly referred to as the "broad lake" part of Lake Champlain, lies the State of New York. The Town of Grand Isle shares a ferry connection across the broad lake with the City of Plattsburgh, New York. To the east, across what is commonly referred to as the "inland sea" or the "inner lake" part of Lake Champlain, lies the mainland of Vermont and the Towns of Milton, Georgia and St. Albans. The Town of Grand Isle

Table 8.1: Year-Round Population for Adjacent Towns and County

Town	1990	2000	2010	2020	% change, 1990-2020
Grand Isle	1,642	1,955	2,067	2,086	+27%
North Hero	502	810	803	939	+87%
South Hero	1,404	1,696	1,631	1,674	+19%
Grand Isle County	5,318	6,901	6,970	7,293	+37%

Data Source: U.S. Decennial Census

Table 8.2: Housing Stock for Adjacent Towns, Including Seasonal Units

Town	1990	2000	2010	2020	% change, 1990-2020
Grand Isle	997	1,047	1,198	1,237	+24%
North Hero	743	907	966	951	+27%
South Hero	958	1,036	1,060	1,070	+12%

Data Source: U.S. Decennial Census

shares no physical land-based or water-based transportation connection with any of these mainland towns. Their only connection is a shared concern for the preservation and enjoyment of the waters of Lake Champlain.

Grand Isle and its adjacent island communities have experienced a substantial degree of growth since 1990. Grand Isle has the largest population and housing stock compared to South Hero and North Hero. As shown in Tables 8.1 and 8.2, Grand Isle is growing at a faster rate than South Hero and slower rate than North Hero, although in absolute numbers, Grand Isle's population and housing stock increased by more than North Hero.

A Comparison with the Town of North Hero

The goals and policies outlined in North Hero's Town Plan, adopted in 2020, are similar to those outlined in the Grand Isle Town Plan, even though specifics vary, and some emphasis is different. The basic goals of the North Hero Town Plan are *"to preserve the unique rural and small Town character of North Hero;" "to protect the quality of the environment and the lake;" "to maintain the visual character and aesthetic setting of North Hero;" "to maintain the community and to enhance the sense of community in North Hero;" "to foster quality growth and controlled development in North Hero;" "to engage in a continued, coordinated and comprehensive planning process and to encourage active citizen participation throughout the process;" "to assure the safe and efficient use of both town and state utilities, facilities, and infrastructure;" "to maintain a comprehensive mapping system of North Hero;" "to regularly review public and private incentives, grants, and other incentives as tools to promote Town goals and address local needs;" "to promote safe, healthy, and affordable housing located conveniently to employment, services, retail centers, and educational and recreational facilities as well as park and ride;" "to promote increased awareness and use of renewable energy resources as well as the conservation of existing energy resources;"* and to *"encourage and foster an all hazards disaster resilient community where the loss of life, injuries, and damages to public infrastructure that result from disasters are minimized."*

The North Hero Town Plan cites the environment as the "single most important factor in the quality of life in North Hero." The town plan also states that "the quality of the lake must be considered in every aspect of planning and zoning." The "scenic beauty of the shore lands" is cited as being in danger from erosion and the indiscriminate clearing of vegetation.

North Hero has a smaller population and housing stock than Grand Isle but is growing at a faster rate. Most residential development has taken place along the lakeshore. Like Grand Isle, agriculture and tourism, including seasonal homes, continue to be the town's two most important economic bases. U.S. Route 2 is the only arterial corridor which links North Hero with the rest of Vermont.

The North Hero Town Plan designates the following Land Use Districts: Village, Rural Lands, Conservation, Shoreland, and Off Islands. North Hero adopted zoning bylaws in November of 1990. The regulations were most recently amended in 2023. The Village, Shorelands and Off Islands districts each have a minimum lot size of two acres. The Conservation district highly restricts all new development and has a minimum lot size of 10 acres. Rural Lands has a minimum lot size of three acres. The North Hero Town Plan is compatible with the Grand Isle Town, although a higher density of development is currently allowed in the Grand Isle Rural Residential/Agricultural District than in the adjacent North Hero Rural Lands District.

A Comparison with the Town of South Hero

The goals and policies outlined in South Hero's Town Plan, adopted in 2023, are similar to those outlined in the Grand Isle Town Plan, even though specifics vary, and some emphasis is different.

The Town's vision statement is: South Hero, Vermont is a friendly, vibrant, and beautiful small Lake Champlain Island town where folks live, work, play and visit. The abundant recreational, agricultural and cultural amenities support healthy lifestyles, a sense of community, and a thriving local island economy. The Town Plan incorporates elements of equity and inclusion and community health and puts emphasis and the importance of agriculture and the recreation and cyclist economy. The South Hero Town Plan also addresses water quality issues in Lake Champlain.

During the nineties, South Hero and Grand Isle's population both increased by about 20%, while the housing stock in South Hero grew at a higher rate. The highest concentration of residential development has taken place around Keeler Bay and along South Street to Allen Point. The West Shore has also been developed but more sparsely. Like Grand Isle, agriculture and tourism, including seasonal homes, continue to be the Town's two most important economic bases.

South Hero adopted zoning bylaws in July of 1972. In the revised 2021 Land Use and Development Regulations the zoning districts include: Village District, Rural Residential District, Conservation District, Shoreland District, and Flood Hazard Overlay District. The Village District does not have a minimum lot size with density being set by siting and use standards. The Rural Residential Area and Shoreland Area each have one acre zoning. The Conservation Area has 25-acre zoning. The Flood Hazard Overlay Area adopts the same acreage as the underlying district. Grand Isle's Agricultural and Residential Zoning District is immediately adjacent to South Hero's Rural Residential District. These districts have comparable permitted and conditional uses. The South Hero Plan is compatible with the Grand Isle Town Plan.

Northwest Regional Planning Commission

The Town of Grand Isle participates in the Northwest Regional Planning Commission to address policy and planning issues of a regional nature. All municipalities in Franklin and Grand Isle Counties are members of the Commission and have representation on the Board of Commissioners. Grand Isle is regularly represented at all Board meetings and participates in many of the planning efforts taking place in the region.

The Northwest Regional Plan was updated and adopted in 2023 and amended in 2024. Land use planning areas in the Regional Plan encourage the conservation of valued resources and a development pattern that will maintain the character and quality of life important to the region. The Grand Isle Town Plan is compatible with the Northwest Regional Plan.

Grand Isle may request regional approval of the town plan per 24. V.S.A. 4350. Regional approval would confirm the Grand Isle Town Plan is compatible with the Regional Plan, is consistent with state planning goals, includes all required town plan elements and is compatible with plans in adjacent municipalities.

Based on this and other analysis, none of the goals, objectives or recommendations in the Grand Isle Town Plan will adversely affect the plans or development trends of the neighboring communities or the region. Grand Isle will continue to work with neighboring municipalities when implementing this plan.

APPENDIX A: ENHANCED ENERGY PLAN

The intent of this section is to meet the municipal determination standards for enhanced energy planning enabled in 24 V.S.A. 4352. The purpose of enhanced energy planning is to further local, regional, and state energy goals, including the goal of having 90% of energy used in Vermont come from renewable sources by 2050 (90 x 50 goal), and the following:

- A. Vermont's greenhouse gas reduction goals under 10 V.S.A. § 578(a);
- B. Vermont's 25 by 25 goal for renewable energy under 10 V.S.A. § 580;
- C. Vermont's building efficiency goals under 10 V.S.A. § 581;
- D. State energy policy under 30 V.S.A. § 202a and the recommendations for regional and municipal energy planning pertaining to the efficient use of energy and the siting and development of renewable energy resources contained in the State energy plans adopted pursuant to 30 V.S.A. §§ 202 and 202b (State energy plans); and
- E. The distributed renewable generation and energy transformation categories of resources to meet the requirements of the Renewable Energy Standard under 30 V.S.A. §§ 8004 and 8005.

A positive determination of compliance with the requirements of enhanced energy planning, as provided by the Regional Planning Commission, will enable Grand Isle to achieve “substantial deference” instead of “due consideration” in Certificate of Public Good (CPG) proceedings for energy generation facilities (ex. wind facilities, solar facilities, hydro facilities, etc.) under Criteria (b)(1)-Orderly Development. In short, this means that Grand Isle will have a greater “say” in CPG proceedings before the Vermont Public Utility Commission about where these facilities should or should not be located in the community.

To receive a positive determination of energy compliance, an enhanced energy plan must be duly adopted, regionally approved, and contain the following information:

- A. An analysis of current energy resources, needs, scarcities, costs, and problems.
- B. Targets for future energy use and generation.
- C. “Pathways,” or implementation actions, to help the municipality achieve the established targets.
- D. Mapping to help guide the conversation about the siting of renewables.

Energy Resources, Needs, Scarcities, Costs and Problems

The following subsection reviews each sector of energy use (thermal, transportation, electric) and electricity generation in Grand Isle. Several different units of measurement are used in this section. Please refer to Table 7.12 for more information about unit conversions.

Space Heating

Table 1 shows an estimate of current residential space heating fuel use by household are available from the American Community Survey (ACS 2018-2022). The data shows that 46.5% of households in Grand Isle depend on fuel oil as their primary source for home heating. This is followed by 33.0% of households that use propane and 11.5% households that use wood. Wood includes both cord wood and wood pellets. The nearest natural gas pipeline is located in Georgia and is not likely to be extended to Grand Isle in the future.

Based on NRPC estimates, the Grand Isle currently uses approximately 101.7 Billion BTUs to heat residential units each year. Electric heat pumps are a highly efficient and affordable way to heat homes, and their adoption is increasing quickly. Adoption in Grand Isle could be slow due to older housing stock that requires weatherization and electric upgrades before heat pumps can be installed.

Table 1 - Current Grand Isle Residential Thermal Energy Use

Fuel Source	Grand Isle Households (ACS 2018-2022)	Grand Isle % of Households	Grand Isle – Estimated Households Square Footage Heated (ACS 2018-2022)	Residential Thermal Energy Use in British Thermal Units (BTUs) BTU (in Billions)
Natural Gas	0	0%	0	0
Propane	284	33.0%	561,504	33.7
Electricity	49	5.6%	96,306	5.8
Fuel Oil	400	46.5%	782,556	47.0
Coal	0	0.0%	0	0
Wood	99	11.5%	209,088	12.5
Solar*	0	0.0%	0	0
Other	28	3.2%	44,772	.9
No Fuel	0	0.0%	0	0
Total	860	100.0%	1,694,226	101.7

*Solar could include passive solar heating, solar thermal space and water heating, and solar electricity used for thermal heating

Estimates for commercial, industrial and institutional thermal energy use are more difficult to calculate due to the lack of accurate information available. Statewide, roughly 40% of all thermal energy consumption is from commercial and industrial sources (2022 Comprehensive Energy Plan). If this trend is similar for the Town of Grand Isle, thermal energy use in the town for commercial and industrial uses may be around 67.8 billion BTUs. However, this data should not be assumed to be accurate due to lack of region and local specific information. There is no local, regional or statewide breakdown of sources of thermal energy for commercial, industrial and institutional uses.

Electricity Use

Table 7.3 shows 2023 electricity use in Grand Isle according to Efficiency Vermont. Grand Isle’s total electricity use has increased by over 20% since 2017 from 11.5 million kWh to about 14 million kWh per year in 2023. While electric conservation is crucial to reaching regional and municipal energy goals, electrification of heating and transportation means that electricity use needs to increase in the coming years. The increase Grand Isle has already seen could be due in part to electrification. Grand Isle’s average residential usage is still lower than the average residential kWh use in the region, but this may be due in part to the high number of seasonal homes in Grand Isle.

Table 2 – Electricity Use in Grand Isle (kWh)

Residential	9,390,930
Commercial and Industrial	4,734,479
Total	14,125,409

Source: Efficiency Vermont, 2023

Grand Isle is served by one electric utility: Vermont Electric Cooperative.

Transportation

Transportation contributes a considerable amount to the region’s total energy use. This is due to several factors including reliance upon the automobile for transportation, land use patterns and fuel costs.

Data regarding vehicle use and vehicle miles traveled is available from both state and federal sources, although at regional and state levels. It provides a clear picture of auto

Table 3 – Gas Vehicle Energy Use

Transportation Data	2013	2021
Total # of Gas Vehicles	42,471	39,564
Average Miles Traveled (Vermont)	11,356	12,274
Transportation BTUs (Thousand MMBTU)	3,121	3,029
Gasoline Cost	59,883,119	95,863,654

Source: 2016-2021 ACS, 2021
VTrans Vermont Transportation Energy Profile

reliance in the state and the region (Figure 7.4). In the Northwest Region (Franklin and Grand Isle Counties), from 2013-2021, estimated gasoline energy usage is down 2.9%. This is largely due to fewer gasoline vehicles estimated to be on the road, as well as a small increase in average vehicle fuel efficiency. However, average miles traveled is increasing in the state, which reduces fuel savings. This data is also likely impacted by COVID-19 and the prevalence of work from home arrangements during and after the pandemic.

The use of electric or hybrid vehicles has increased from six (6) 2017 to thirty-eight (38) by 2023 (Efficiency Vermont). EV adoption is predicted to continue increasing exponentially.

Electric Generation

There is currently 6.52 MW of electricity generation capacity from renewable generation facilities located in Grand Isle. This capacity results in approximately 8,567 MWh of electricity generation per year. A large portion of this, 5 MW, comes from a community solar project owned and operated by Vermont Electric Cooperative. The amount of electricity generation in Grand Isle is roughly equal to the annual electricity use of about 1,279 households in Vermont based on information available from the U.S. Energy Information Administration (6,696 kWh per VT household per year).

Table 7.5 organizes information about existing generation in Grand Isle by type of facility. Map 7.4 shows the location of all electricity generators in Grand Isle with a capacity greater than 15 kW. A full list of electricity generators in Grand Isle that have been granted Certificates of Public Good can be accessed from the Vermont Public Utility Commission.

Grand Isle has very good access to electric transmission and three-phase distribution lines. These types of lines are used to transmit large quantities of electricity and are needed to serve large industrial users and commercial centers. This access to this type of infrastructure in Grand Isle may make development of renewable energy facilities easier and more cost-effective than in other surrounding communities with more existing grid infrastructure.

Table 4 – Existing Renewable Electricity Generation

Generation Type	MW	MWh
Solar	6.50	8541
Wind	0	0
Hydro	0	0
Biomass	0	0
Other*	0.02	26
Total Existing Generation	6.52	8567

**Mixture of solar, wind and battery storage- MWh assumption based on solar*

Map 7.2 shows the electricity transmission and three-phase distribution infrastructure in Grand Isle. The map shows a three-phase distribution lines in the town along VT Route 314, US Route 2, Pearl St., West Shore Road and Moccasin Ave. There is also a transmission line in Grand Isle that runs towards South Hero. Access to renewable generation resources, such as solar and wind, will be addressed below in the mapping section.

While not included in the targets for energy use and generation, another potential source of energy in Grand Isle are anerobic biodigesters. Biodigesters capture methane from manure or food waste and convert it into a renewable gas which either can be used in natural gas pipelines or transformed into electrical energy on-site through use of a generator. Anerobic biodigesters can have beneficial climate impacts as they reduce methane emissions and can offset use of traditional natural gas. Biodigesters can also provide an important source of income for farmers. A major barrier to the expansion of biodigesters is that many small farms do not generate enough manure to make the biodigester profitable. Grand Isle supports efforts to expand on-farm anerobic biodigesters with creative solutions including digester hubs and micro digesters.

Equity and Affordability

Reaching Grand Isle's energy goals will bring both environmental and economic costs and benefits. The equity issues related to who will bear those costs is of continuing concern to Grand Isle. A just energy transition requires that all residents have equitable access to the benefits and costs of the energy transition. The efficiency of green technologies offers savings for consumers as seen with electric vehicles, electric heat pumps, newer appliances, residential solar, etc. These technologies often require upfront investment, making them more difficult to access for residents with lower income. Low-income workers in Vermont also tend to work in industries that are more susceptible to the effects of climate change such as tourism and agriculture and are often disproportionately impacted by natural disasters like flooding. Equity for all residents will be considered in every decision about energy.

Targets for Use and Generation

The second required element of an enhanced energy plan is the creation of targets for future energy use. Northwest Regional Planning Commission worked with the Vermont Energy Investment Corporation (VEIC) and the Vermont Department of Public Service in 2016 to develop regional targets for future energy use and renewable electricity generation to meet the State of Vermont's 90 x 50 goal. The targets represent only one scenario that would meet this goal. There may be many different ways that would also enable Vermont to achieve the 90 x 50 goal. For more information about the regional targets, please see the Northwest Regional Energy Plan (www.nrpcvt.com).

Regional targets for energy use and renewable electricity generation were disaggregated to create municipal targets. These municipal targets were also designed to ensure compliance with the Department of Public Service’s Municipal Determination Standards. Tables 7.6, 7.7 and 7.8 show the targets for future energy use for Grand Isle by sector (totals are cumulative).

Table 5 - Thermal Targets

Thermal Targets	2025	2035	2050
Percent of Total Heating Energy From Renewable Sources - Heating (BTUs)	45.1%	58.3%	86.2%
New Efficient Wood Heat Systems (in units)	0	0	5
New Heat Pumps (in units)	110	253	473
Percentage of municipal households to be weatherized	5%	16%	78%
Percentage of commercial establishments to be weatherized	25%	25%	73%

One thermal target for Grand Isle in 2050 is to have 86.2% of structures heated by renewable energy sources. Much of this transition is likely to come from conversion to electric heat pumps as the primary heating source for single family homes as the technology becomes more readily available and affordable. Regionally, the target also relies on wood heating being a continued source of residential heating. However, Grand Isle has only a small target for new efficient wood heating systems. This is due primarily to the high proportion of existing households in Grand Isle that already use wood heating systems. Although there is only a small target, Grand Isle strongly encourages residents’ conversion of existing wood heating systems to more advanced wood heating systems. Newer wood heating systems are more efficient and have less greenhouse gas emissions than older wood heating systems. Table 7.6 also includes targets for the weatherization of residential households and commercial structures (78% and 73% respectively in 2050).

Table 6 - Transportation Targets

Transportation Targets	2025	2035	2050
Percent of Total Transportation Energy from Renewable Sources - Transportation (BTUs)	9.5%	31.2%	90.2%
Electric Vehicles	170	1270	3022
Biodiesel Vehicles	295	588	1132

The transportation energy targets for Grand Isle are similarly ambitious. By 2050, almost 90.2% of transportation energy will need to come from renewable sources to meet the 90 x 50 goal. This will primarily be through the conversion of light-duty passenger vehicles from fossil fuels energy sources to electric energy. However, it will also mean conversion of heavy-duty vehicles from diesel to biodiesel sources. Biodiesel technology and infrastructure will certainly need to advance tremendously in coming years to meet this ambitious target.

Targets for electricity use are complex to interpret. Electricity use in Grand Isle is targeted to double by 2050 (Table 7.8). This increase in use will likely be driven by conversions to electric heat pumps and electric vehicles. These consumer changes will cause electricity use to grow. At the same time, total energy use (energy, not electricity) will become more efficient. This is because electric cars and electric heating sources are more efficient than using other energy sources, such as fossil fuels.

Table 7.9 shows the electricity generation targets for new electricity generation in Grand Isle in 2025, 2035, and 2050. All new wind, solar, hydro, and biomass electricity generation sites will further progress towards achieving the generation targets (in MWh). Given the difficulty of developing additional hydro generation and the constraints upon wind development, it is likely that solar generation will need to be a substantial component of meeting these generation targets. Because of the large generation output of the community solar project located in Grand Isle, the municipality is well on its way to its 2050 generation goal. Still, meeting the generation targets will take considerable effort over the next 30 to 35 years. The 2050 generation target (11,061.61 MWh) is about 30% more than the current generation capacity (8,567 MWh) within the Town of Grand Isle.

Table 7 - Electricity Targets

Electricity Targets	2025	2035	2050
Increased Efficiency and Conservation (BTUs)	25.2%	48.3%	100.7%

Table 8 – Renewable Electricity Generation Targets

Renewable Generation Targets	2025	2035	2050
Total Renewable Generation Target (in MWh)	3,650.33	7,300.66	11,061.61

Grand Isle supports NRPC’s position regarding “commercial” and “industrial” wind facilities. The NRPC Regional Plan finds that the construction of new “industrial” or “commercial” wind facilities within the region does not conform to the Regional Plan (NRPC considers any wind facility with a tower height (excluding blades) in excess of 100 feet tall to be considered an “industrial” or “commercial” wind facility).

Energy potential from biomass and methane sources is not estimated. This is due to a variety of factors including insufficient information on which to create estimates. Grand Isle encourages the use of these sources for electricity and thermal generation, especially on farms.

Based on mapping and calculations completed by NRPC, Grand Isle has sufficient land to meet the above electricity generation targets. Grand Isle has access to the renewable electricity generation capacity outlined in Table 7.10. This estimate shows that Grand Isle has considerably more potential for renewable electricity generation than is needed to meet the renewable electricity generation targets in Table 7.9. This generation capacity was calculated using the “base” layers for solar and wind. For an explanation of what constitutes a “base” layer, please see the mapping subsection below.

Mapping Energy Resources and Constraints

The third required element of an enhanced energy plan is the inclusion of maps that will provide guidance to the community and developers regarding the location of new renewable generation facilities. Grand Isle has incorporated maps provided by NRPC. These maps show data as required by the Department of Public Service Municipal Determination Standards, including access to energy resources and constraints to renewable development. All maps can be found at the end of this section.

The intent of the maps is to generally show those areas that may be good locations or may be inappropriate locations for future renewable electricity generation facilities. However, it is important to note that the maps are a planning tool and do not precisely indicate locations where siting a facility is necessarily acceptable. When an electricity generation facility is proposed, the presence of all natural resources constraints on site shall be verified as a part of the application.

Table 7.9 – Current Renewable Electricity Generation

Resource	MW	MWh
Solar		8541
Wind		0
Hydro		0
Biomass and Methane		0
Other*		26
Total Renewable Generation Potential	6.52	8567

*Mixture of solar, wind and battery storage- MWh assumption based on solar

Mapping Methodology

Spatial data showing the location of energy resources formed the basis of the maps developed by NRPC. This is the data that shows where there is solar, wind, hydro, and biomass “potential” in Grand Isle based on information provided by the Vermont Sustainable Jobs Fund. “Known” and “possible” constraints were subsequently identified on the maps. Known constraints are conservation resources that shall be protected from all future development of renewable electricity generation facilities. Possible constraints are conservation resources that shall be protected, to some extent, from the development of renewable generation facilities. The presence of possible constraints on land does not necessarily impede the siting of renewable generation facilities on a site. Siting in these locations could occur if impacts to the affected possible constraints are mitigated, preferably on-site.

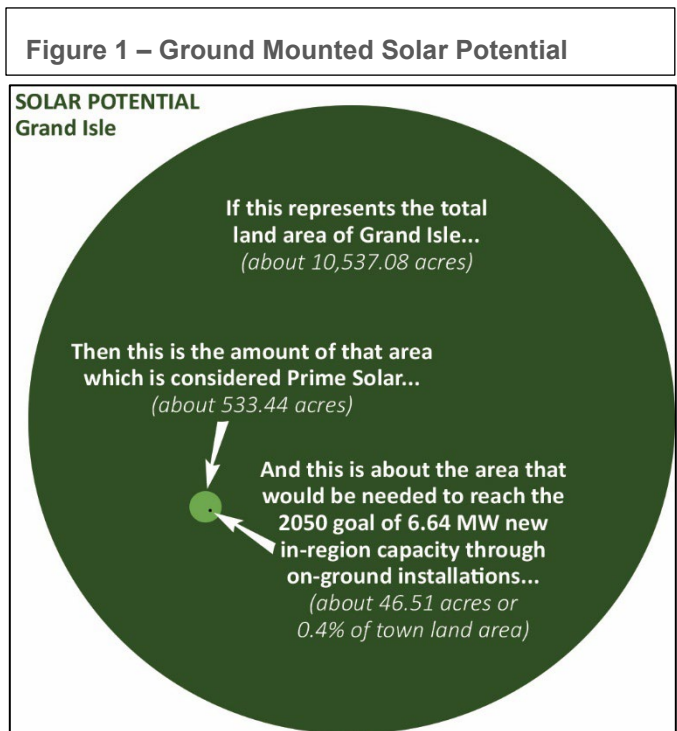
A full list of known and possible constraints included on the maps is located in Table 7.12. The known constraints and possible constraints used to create the maps include constraints that are required per the Municipal Determination Standards from the Department of Public Service and regional constraints selected by NRPC. The Conservation District in Grand Isle was included as a regional known constraint.

Solar and Wind

The solar and wind maps show both “base” and “prime” areas. Base areas are areas with electricity generation potential yet may contain possible constraints. Prime areas are areas that have electricity generation potential that do not contain known or possible constraints. Areas that do not contain electricity generation potential, and areas that contain a known constraint, are shown as white space on the map.

The solar map indicates an abundance of base and prime solar areas in a few areas. The following preferred locations for solar generation facilities by the Town of Grand Isle: rooftops, parking lots, and landfills. Brownfield sites located outside of the village of Grand Isle are also considered a preferred location.

Grand Isle has a strong preference for solar facilities that have less than 5 MW in generation capacity. This preference is a reflection of the community’s dedication to preserving the aesthetic and rural qualities of Grand Isle by restricting the geographic size of solar facilities. In addition, Grand Isle prefers those solar facilities greater than 149 kW in generation capacity to be sufficiently separated from other similarly sized



solar facilities to “break up” the visual impact of two or more solar facilities located next to each other and to preserve Grand Isle’s rural character.

All solar facilities to be sited in Grand Isle shall include proper screening. The Town of Grand Isle may adopt a municipal solar screening ordinance in the future.

There are also wind resources in Grand Isle. These areas are generally located near the lake shore on either side of town.

Hydro and Biomass

The biomass map is somewhat similar to the solar and wind maps. The biomass map also displays “base” and “prime” areas. However, these categories are not necessarily indicative of electricity generation potential. They instead indicate areas of contiguous forest that may be used for the harvesting of woody biomass for use in either thermal or electric generation.

The hydro map is unique from the other types of generation maps. It shows existing dam sites used for electricity generation. It also shows existing dam sites that are not used for electricity generation but could be retrofitted to provide electricity generation capacity. Data about these dams comes from a study commissioned by the Vermont Agency of Natural Resources. The hydro map also shows some known and possible constraints that could impact the redevelopment of some dam sites. Grand Isle has no existing dam sites, and the development of new dam sites is extremely unlikely due to Grand Isle’s upland location and the extensive regulatory process involved in developing new dams.

GOALS

1. Maximize the weatherization of municipal buildings and support weatherization of residential households and commercial establishments.
2. Support local efforts to minimize vehicle miles traveled through fewer single occupancy vehicle (SOV) commute trips and expanded public transit opportunities and solutions.
3. Support the efforts of CIDER in providing service to the community, including any effort to increase transit opportunities with CIDER or any other transit providers.
4. Focus residential and commercial growth within and adjacent to the villages to enhance walkability and shorten trips between destinations.

POLICIES

1. Grand Isle supports energy conservation efforts and the efficient use of energy across all sectors.
2. Grand Isle supports the reduction of transportation energy demand, reduction of single-occupancy vehicle use, and the transition to renewable and lower-emission energy sources for transportation.
3. Grand Isle supports patterns and densities of concentrated development that result in the conservation of energy. This includes support for public transit connections from Grand Isle to other parts of the region.
4. Grand Isle supports the development and siting of renewable electricity generation resources in the town that are in conformance with the goals, strategies, and mapping outlined in this plan. Development of electricity generation in identified preferred locations shall be favored over the development of other sites.
5. Grand Isle supports the conversion of fossil fuel heating to advanced wood heating systems or electric heat pumps.
6. Support local farms and the local food system for its ability to use less transportation and other energy costs in getting from farm to table.

IMPLEMENTATION ACTIONS

1. Coordinate annually with Efficiency Vermont and state low-income weatherization programs to encourage residents to participate in weatherization programs available to Grand Isle residents.
2. Promote the use of the residential and commercial building energy standards by distributing code information to permit applicants.
3. Determine if there is a need to create a municipal Energy Committee, appoint an Energy Coordinator, or provide greater funding and support to existing municipal boards to coordinate energy-related planning in Grand Isle and to educate residents about the goals of this plan.
4. Investigate a revision to the zoning bylaw that would incentivize compliance with the state's stretch code, or similarly high environmental standard, through the issuance of a bonus density.
5. Conduct energy audits on any remaining municipally owned buildings and take subsequent action such as weatherization retrofits to improve efficiency.

6. Promote carpooling through the use of formal and informal Park and Ride lots in the region and the GoVermont website (<https://www.connectingcommuters.org/>) which provides information citizens about ride share, vanpool, and park-and-ride options.
7. Plan for and install electric vehicle charging infrastructure on municipal property.
8. Review municipal road standards to ensure that they reflect the “complete streets” principles as outlined by Vermont Agency of Transportation and Vermont Department of Health (http://www.healthvermont.gov/sites/default/files/documents/2016/11/HPDP_PA&N%20Complete_streets_guide_for_VT_communities.pdf).
9. Review local policies and ordinances to limit water and sewer services to those areas of town where additional development will not contribute to sprawl.
10. Investigate the installation of a municipal solar and/or wind net-metering facilities to off-set municipal electric use.
11. Explore opportunities to generate local, community-scale, and clean energy such as wind, solar, geothermal, or a wood-fired district heating facility.
12. Provide firefighters with training in fighting fires on structures that have solar installed.
13. Develop and adopt a municipal solar screening ordinance.
14. Continue to work with towns and organizations within the region to establish a formal commuter Park and Ride lot.

Table 10 – Mapping Constraints

Solar, Wind and Biomass Maps - Known Constraints

Constraint	Description	Source
Confirmed vernal pools	There is a 600-foot buffer around confirmed vernal pools.	ANR
State Significant Natural Communities and Rare, Threatened, and Endangered Species	Rankings S1 through S3 were used as constraints. These include all of the rare and uncommon rankings within the file. For more information on the specific rankings, explore the methodology for the shapefile.	VCGI

Table 10 – Mapping Constraints

River corridors	Only mapped River Corridors were mapped. Does not include 50-foot buffer for streams with a drainage area of less than 2 square miles.	VCGI
National wilderness areas		VCGI
FEMA Floodways		VCGI/NRPC
Class 1 and Class 2 Wetlands		VCGI
Designated Downtowns, Designated Growth Centers, and Designated Village Centers	These areas are the center of dense, traditional development in the region. This constraint does not apply to roof-mounted solar within such designated areas. The inclusion of this resource as a regional constraint is consistent with the goals and policies of the Northwest Regional Plan.	NRPC
FEMA Flood Insurance Rate Map (FIRM) special flood hazard areas	Special flood hazard areas digitized by the NRPC were used (just the 100-year flood plain -500-year floodplain not mapped). The inclusion of this resource as a regional constraint is consistent with goals and policies of the Northwest Regional Plan.	NRPC
Ground and surface waters drinking protection areas	The Vermont Department of Environmental Conservation (DEC) designates Buffered Source Protection Areas (SPAs). SPA boundaries are approximate but are conservative enough to capture the areas most susceptible to contamination. The inclusion of this resource as a regional constraint is consistent with goals and policies of the Northwest Regional Plan.	ANR

Table 10 – Mapping Constraints

<p>Vermont Conservation Design Highest Priority Forest Blocks</p>	<p>The lands and waters identified here are the areas of the state that are of highest priority for maintaining ecological integrity. Together, these lands comprise a connected landscape of large and intact forested habitat, healthy aquatic and riparian systems, and a full range of physical features (bedrock, soils, elevation, slope, and aspect) on which plant and animal natural communities depend. The inclusion of this resource as a regional constraint is consistent with the goals and policies of the Northwest Regional Plan. (Source: ANR)</p>	<p>ANR</p>
<p>Public water sources</p>	<p>A 200-foot buffer is used around public drinking water wellheads. The inclusion of this resource as a regional constraint is consistent with goals and policies of the Northwest Regional Plan.</p>	<p>ANR</p>
<p>Municipal Conservation Land Use Areas</p>	<p>Conservation Land Use Districts, as designated in municipal plans, which include strict language that strongly deters or prohibits development have been included as a regional known constraint. The inclusion of this resource as a regional constraint is consistent with the goals and policies of the Northwest Regional Plan. Specific municipal land use districts included are outlined in Section D of the Regional Energy Plan. The Conservation District as identified in the Grand Isle Town Plan was included in this category.</p>	<p>NRPC</p>

Solar, Wind and Biomass Maps - Possible Constraints

<p>Constraint</p>	<p>Description</p>	<p>Source</p>
<p>Unconfirmed vernal pools</p>	<p>There is a 600-foot buffer around confirmed vernal pools.</p>	<p>ANR</p>

Table 10 – Mapping Constraints

Protected lands	This constraint includes public lands held by agencies with conservation or natural resource oriented missions, municipal natural resource holdings (ex. town forests), public boating and fishing access areas, public and private educational institution holdings with natural resource uses and protections, publicly owned rights on private lands, parcels owned in fee by non-profit organizations dedicated to conserving land or resources, and private parcels with conservation easements held by non-profit organizations.	VCGI
Deer wintering areas	Deer wintering habitat as identified by the Vermont Agency of Natural Resources.	ANR
Hydric soils	Hydric soils as identified by the US Department of Agriculture.	VCGI
Agricultural soils	Local, statewide, and prime agricultural soils are considered.	VCGI
Act 250 Agricultural Soil Mitigation Areas	Sites conserved as a condition of an Act 250 permit.	VCGI
Class 3 wetlands	Class 3 wetlands in the region have been included as a Regional Possible Constraint. The inclusion of this resource as a regional constraint is consistent with the goals and policies of the Northwest Regional Plan.	ANR
Municipal Conservation Land Use Areas	Conservation Land Use Districts, as designated in municipal plans, which include strict language that deters, but does not prohibit development, have been included as a regional possible constraint. Specific municipal land use districts included are outlined in Section D of the Regional Energy Plan. No areas identified in the Grand Isle Town Plan were included in this category.	NRPC

Hydro Map - Known Constraints

Constraint	Description	Source
None		

Hydro Map - Possible Constraints

Constraint	Description	Source
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Table 10 – Mapping Constraints

<p>“303d” list of stressed waters</p>		<p>ANR</p>
<p>Impaired waters</p>		<p>ANR</p>
<p>State Significant Natural Communities and Rare, Threatened, and Endangered Species</p>	<p>Rankings S1 through S3 were used as constraints. These include all of the rare and uncommon rankings within the file. For more information on the specific rankings, explore the methodology for the shapefile.</p>	<p>VCGI</p>

Table 11 Standard Conversions - BTU to Unit

Unit	Unit Type	British Thermal Units
Kilowatt	Kilowatt	3,412
Gasoline	Gallon	120,404
Ethanol	Gallon	84,714
Diesel Fuel	Gallon	137,571
Heating Oil	Gallon	137,571
Residual Fuel Oil	Gallon	149,690
LPG	Gallon	84,738
Kerosene	Gallon	135,000
Biodiesel	Gallon	127,595
Wood Pellets	Ton	16,500,000
Cord Wood	Cord	20,000,000
Wood	Pounds	8,000
Natural Gas	Cubic Feet	103,200
Compressed Natural Gas	Pounds	20,160
Coal	Short Ton	19,490,000

Utility Service Areas

Grand Isle, Vermont

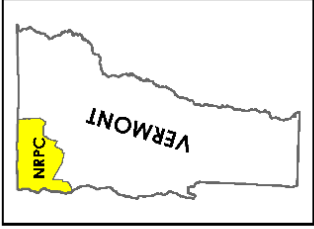
Act 174

The Energy Development Improvement Act

This map and the corresponding data is intended to be used to inform energy planning efforts by municipalities and regions. This may also be used for conceptual planning or initial site identification by those interested in developing energy production facilities. The data is for informational purposes only and **NOT** to be used for any specific investigation for a proposed facility and cannot be used for siting maps.



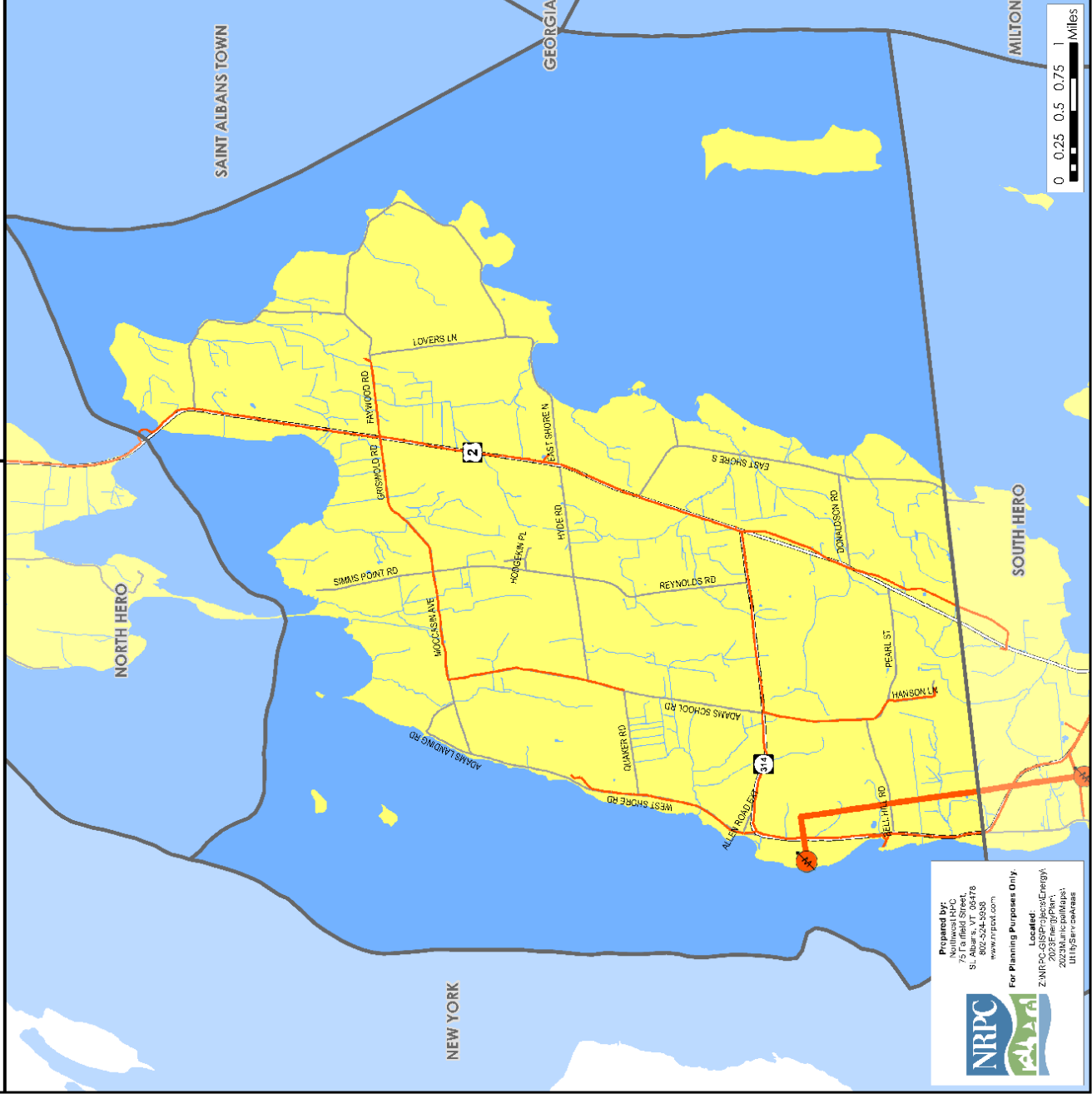
Map 1



Legend

- Utility Service Area Features**
- Green Mountain Power
 - Swanton Village Electric
 - Vermont Electric Co-op
 - Enosburg Falls Electric
 - Substation
 - 3 Phase Power Line
 - Transmission Line

Sources: VCGI
Disclaimer: The accuracy of information presented is determined by its sources. Errors and omissions may exist. The Northwest RPC is not responsible for these. Questions of on-the-ground location can be resolved by field verification. This map is not intended to be used as a legal document. It is not sufficient for delineation of features on the ground. This map identifies the presence of features, and may indicate relationships between features, but is not a replacement for surveyed information or engineering studies.



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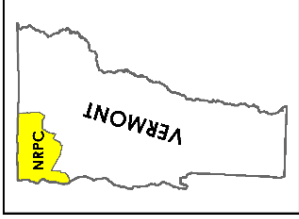
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 Z:\NRPC-GSP\Projects\Energy\2023\Map\Map1.mxd
 Utility Service Areas

Transmission & 3 Phase Power Infrastructure Grand Isle, Vermont Act 174 The Energy Development Improvement Act

This map and the corresponding data is intended to be used to inform energy planning efforts by utilities and regions. It may also be used for site identification and site identification by those interested in developing renewable energy infrastructure. The maps do **NOT** take the place of site-specific investigation for a proposed facility and cannot be used as "stippling maps."



Map 2

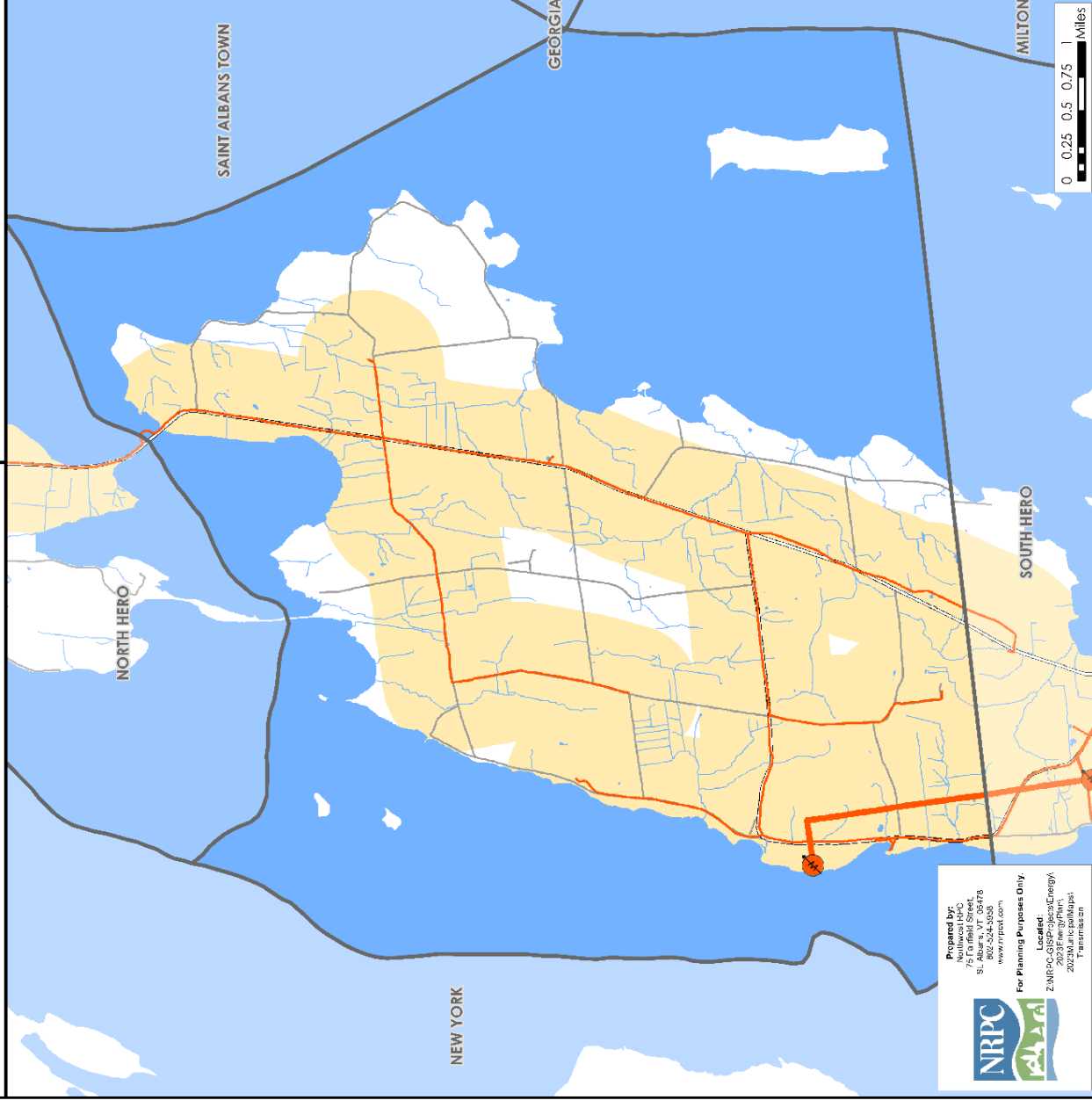



Legend

-  Substation
-  3 Phase Power Line
-  Transmission Line
-  1/2 Mile Buffer* (3 Phase Power Line & Transmission Line)

*The half mile buffer shows where generation facilities can be located without significant loss of power in transit to transmission lines.

Sources: VCCI
Disclaimer: The accuracy of information presented is determined by its source. Errors and omissions may exist. The Northwest RPC is not responsible for these. Questions of on-the-ground location can be resolved by site inspections and/or surveys by a registered surveyor. This map is not sufficient for delineation of features on-the-ground. This map identifies the presence of features, and may indicate relationships between features, but is not a replacement for surveyed information or engineering studies.





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 2, NRPC-GIS/Projects/Energy/
 2018EnergyPlan
 2018EnergyPlans
 Vermont

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Existing Generation Facilities

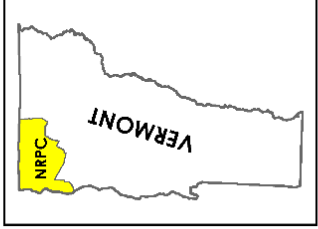
Grand Isle, Vermont Act 174

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Map 3



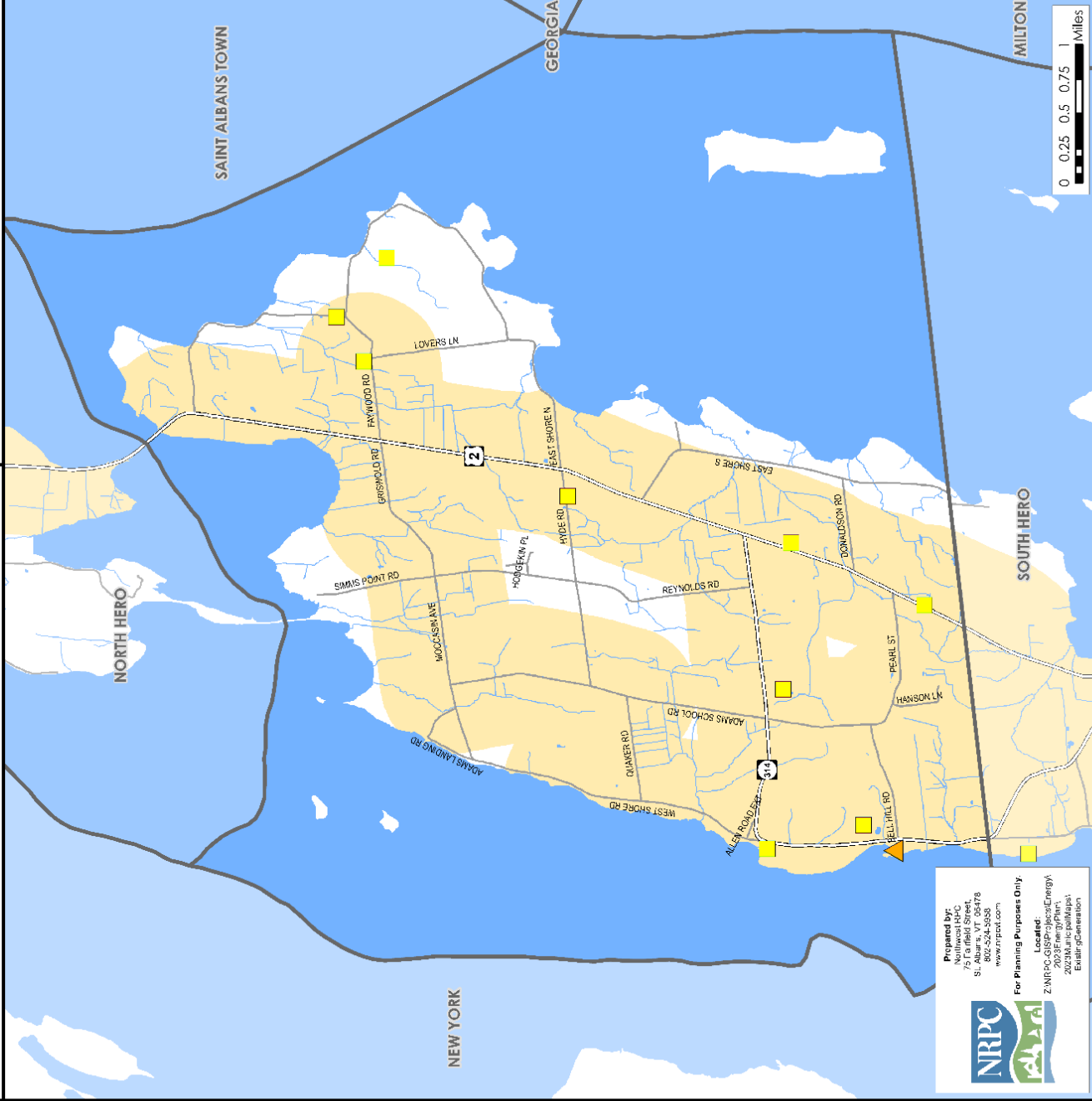
Legend

- Biomass Facility
- Hydro Facility
- Solar Facility
- Wind Facility
- 1/2 Mile Buffer* (3 Phase Power Line & Transmission Line)

Note: Only generators 15kw are shown on the map. A full list of all generators is available. The facility locations shown here are approximate and may not reflect exact location. Projects constructed after 2023 may not be shown.

*The half mile buffer shows where generation facilities can be located without significant loss of power in transit to transmission lines.

Sources: VCGI
Disclaimer: The accuracy of information presented is determined by its sources. Errors and omissions may exist. The Northwest RPC is not responsible for these. Questions of on-the-ground location can be resolved by site inspectors and/or surveys by a registered surveyor. This map is not sufficient for delineation of features on-the-ground. This map identifies the presence of features, and may indicate relationships between features, but is not a replacement for surveyed information or engineering studies.



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Located:
 Z:\NRPC-GIS\Projects\Energy\2023\EnergyPlan\Map\2023EnergyPlan_ExistingGeneration

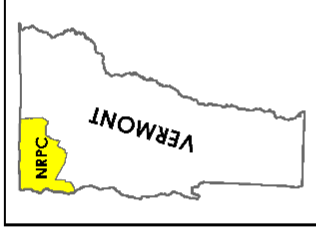
Solar

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Map 4

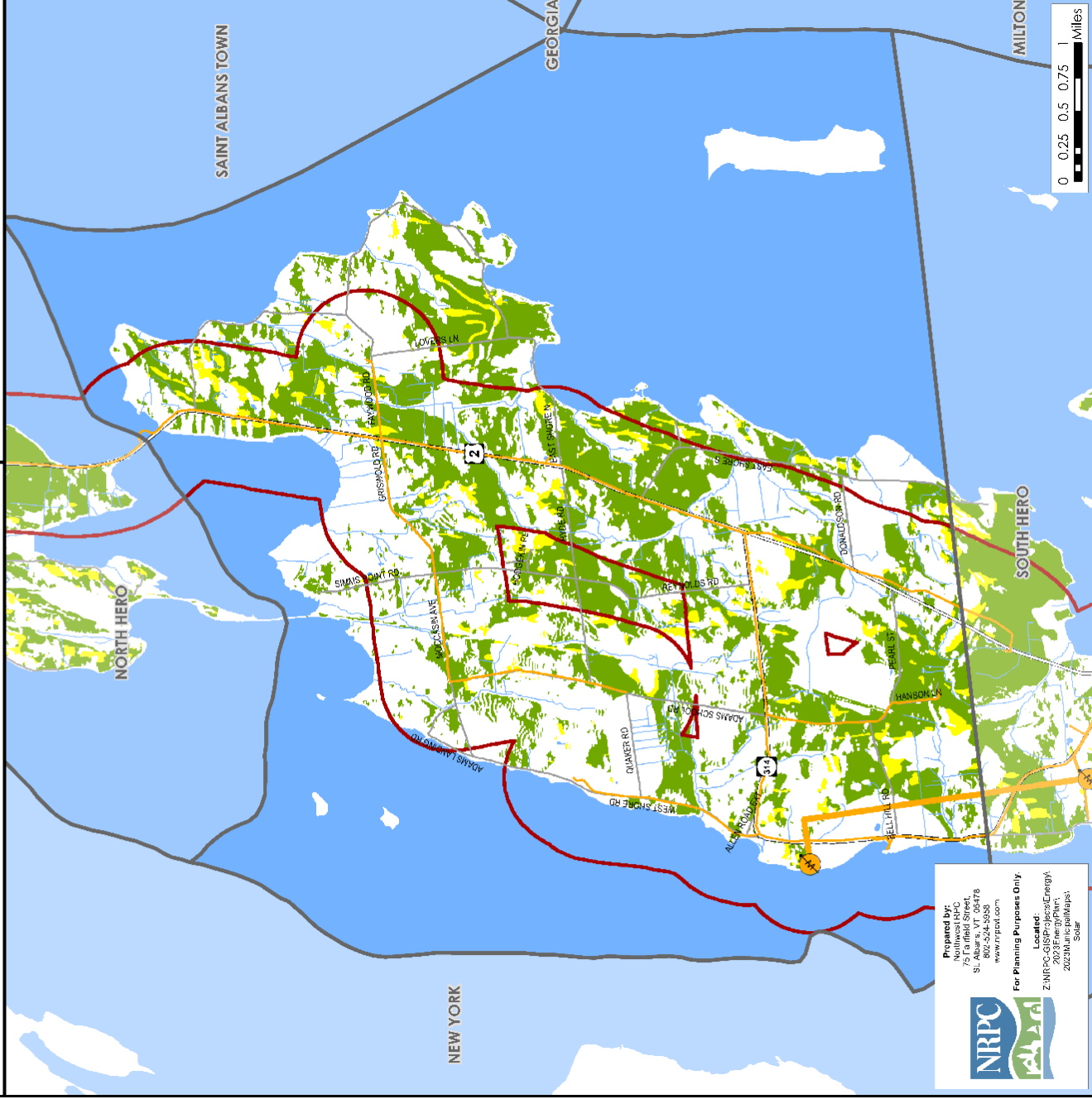


Legend

*The half mile buffer shows where generation facilities can be located without significant loss of power in transit to transmission lines.

- Substation
- 3 Phase Power Line
- Transmission Line
- 1/2 Mile Buffer* (3 Phase Power Line & Transmission Line)
- Prime Solar/No Known Constraints
- Base Solar/Possible Constraints

Sources: VCCG
Disclaimer: The accuracy of information presented is determined by its sources. Errors and omissions may exist. The Northwest RPC is not responsible for these. Questions of on-the-ground location can be resolved by site inspections and/or surveys by a registered surveyor. This map is not sufficient for delineation of features on-the-ground; this map identifies the presence of features, and may indicate relationships between features, but is not a replacement for surveyed information or engineering studies.



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Located:
 Z:\NRPC-GIS\Projects\Energy\2023\EnergyPlan\2023\Map\map4\Map4_Solar



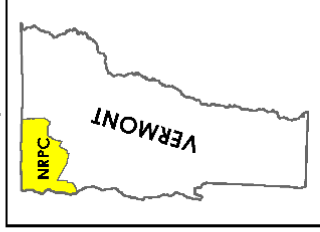
Wind

Grand Isle, Vermont Act 174 The Energy Development Improvement Act

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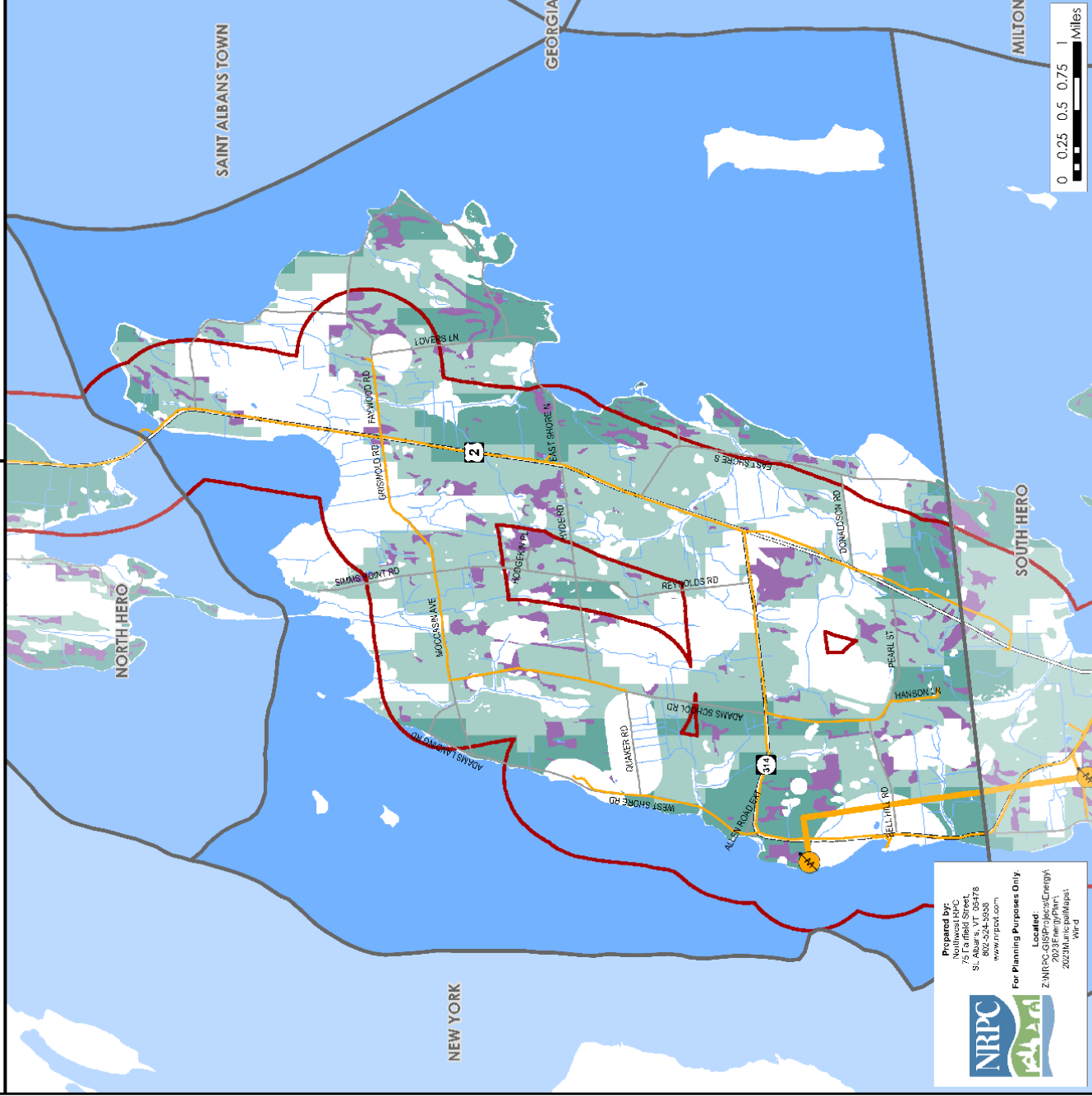
Map 5



Legend

- Substation
- 3 Phase Power Line
- Transmission Line
- 1/2 Mile Buffer* (3 Phase Power Line & Transmission Line)
- Prime Wind**
Areas of high wind potential and no known constraints.
Darker areas have higher wind speeds.
- Base Wind**
Areas of high wind potential and a presence of possible constraints.
Darker areas have higher wind speeds.

Sources: VCGI
Disclaimer: The accuracy of information presented is determined by its sources. Errors and omissions may exist. The Northwest RFC is not responsible for these. Questions of on-the-ground location can be resolved by site inspections and/or surveys by a registered surveyor. This map is not sufficient for delineation of features on-the-ground. This map identifies the presence of features, and may indicate relationships between features, but is not a replacement for surveyed information or engineering studies.



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 Last updated:
 2/2023 (Northwest RFC)
 2023 Vermont Energy
 Wind



Map 6 **Hydro**

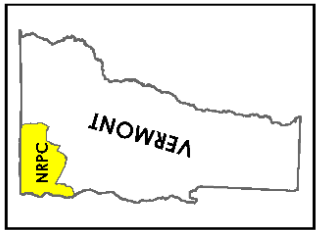
**Grand Isle, Vermont
Act 174
The Energy Development
Improvement Act**

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Legend

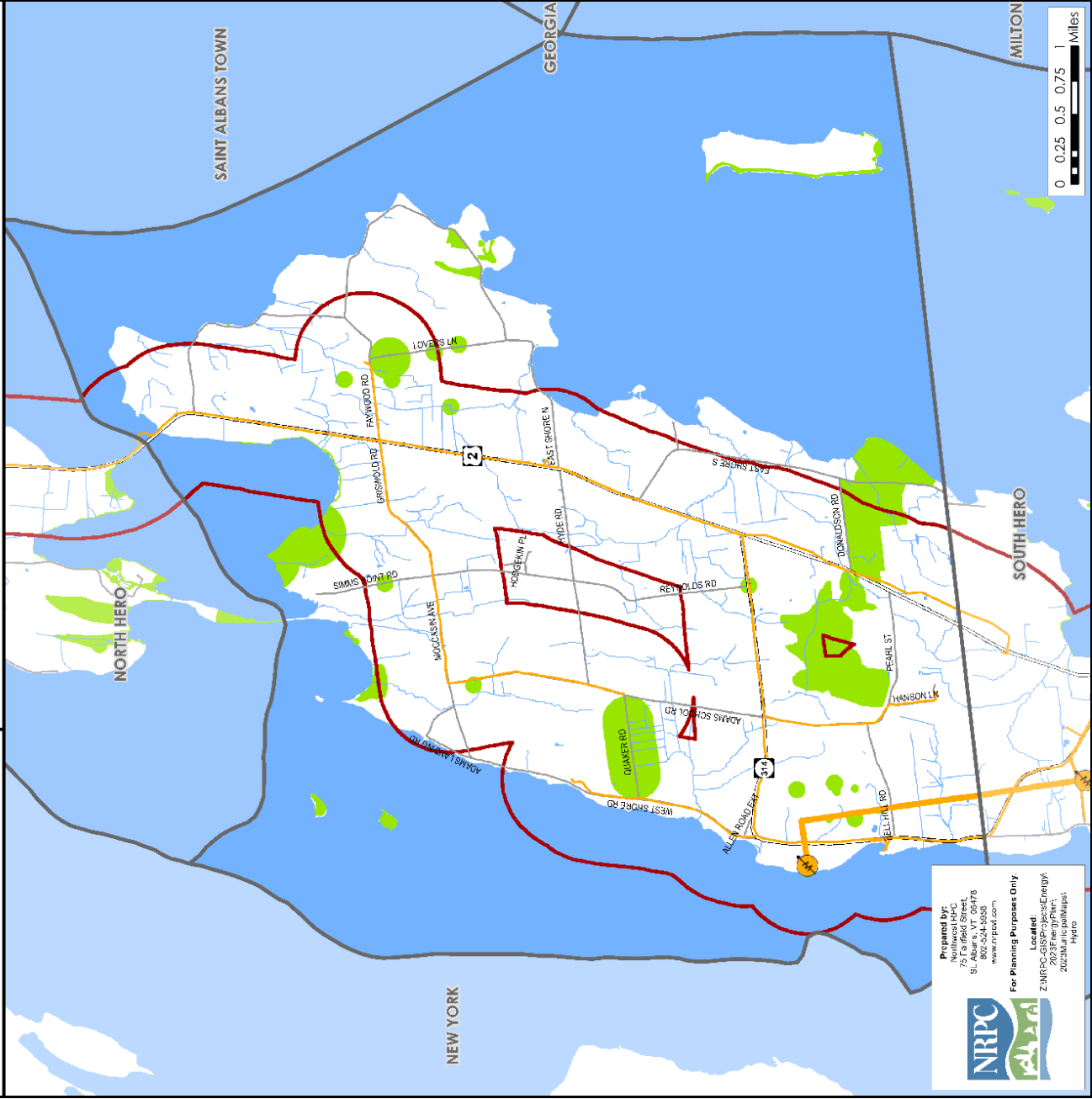
- Substation
- 3 Phase Power Line
- Transmission Line
- 1/2 Mile Buffer (3 Phase Power Line & Transmission Line)
- Designated Outstanding Resource Water
- Known Constraint - Designated National Wild & Scenic River
- Possible Constraint - Rare & Irreplaceable Natural Areas
- Possible Constraint - Stressed or Impaired Water
- Possible Constraint - Rare & Irreplaceable Natural Areas



- Potential Hydroelectric Facility < 50 kW Capacity
- Potential Hydroelectric Facility > 50 kW Capacity
- High Hazard with < 50 kW Capacity
- High Hazard with > 50 kW Capacity

- Operating Hydroelectric Facility**
- Dam not on National Wild and Scenic River
- Dam on National Wild and Scenic River

Sources: VCCCI
Disclaimer: The accuracy of information presented is determined by its sources. Errors and omissions may exist. The Northwest RPC is not responsible for these. Questions of on-the-ground location can be resolved by site inspectors and/or surveys by a registered surveyor. This map is not sufficient for delineation of features on-the-ground. This map identifies the presence of features, and may indicate relationships between features, but is not a replacement for surveyed information or engineering studies.



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 Hydro

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Woody Biomass

Grand Isle, Vermont

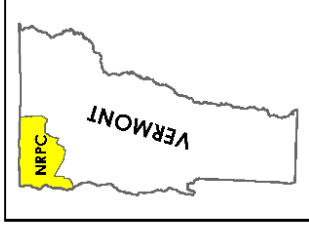
Act 174

The Energy Development Improvement Act

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Map 7



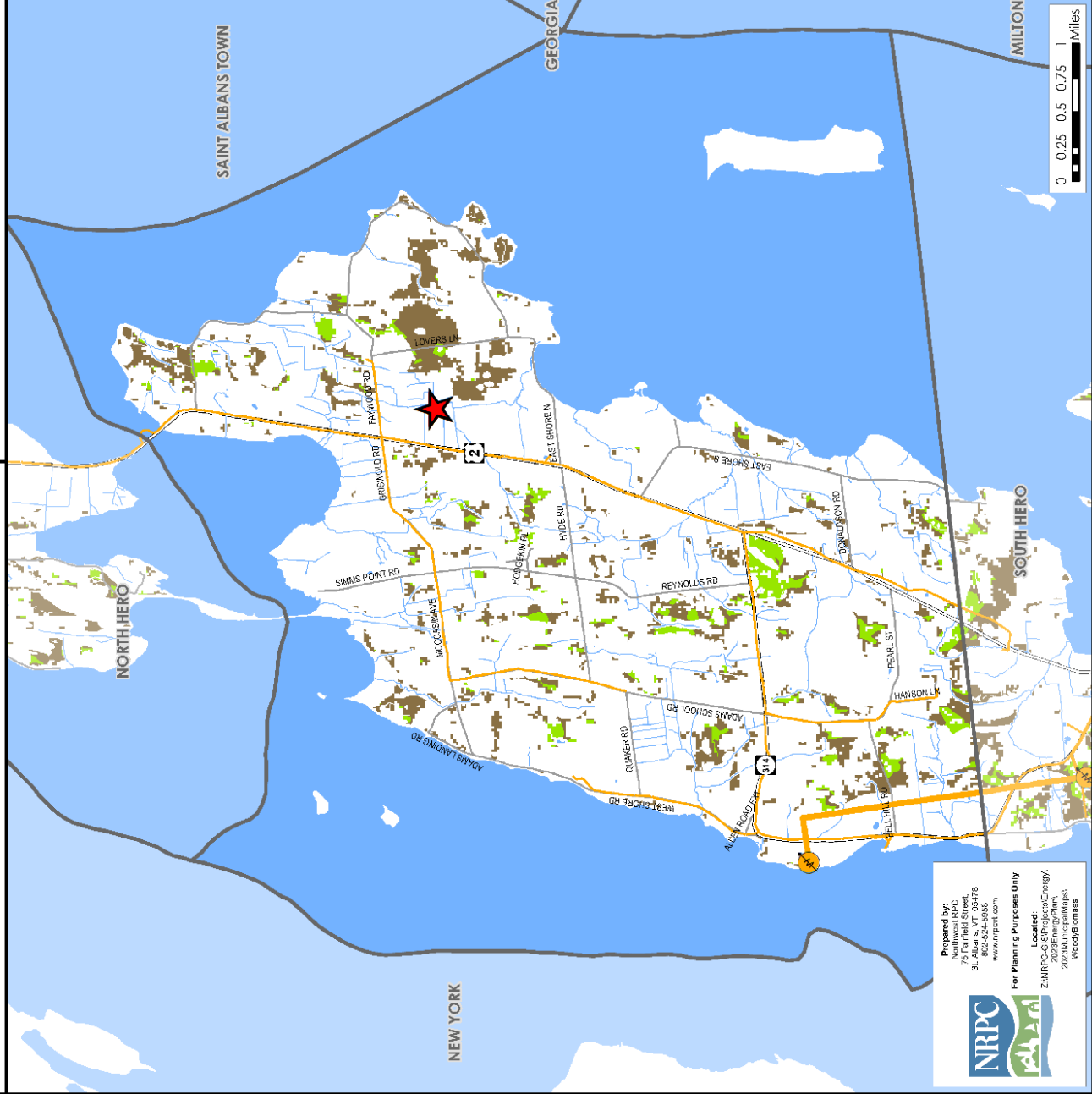
Legend

- Biomass System
- Methane Digester
- Substation
- 3 Phase Power Line
- Transmission Line
- Prime Woody Biomass/No Known Constraints
- Base Woody Biomass/Possible Constraints

Note: The prime and base biomass shows where biomass, specifically cordwood, could potentially be harvested. Other locations of biomass, including methane digesters, are more site specific and therefore does not have prime or base areas.

Sources: VCGI

Disclaimer: The accuracy of information presented is determined by its sources. Errors and omissions may exist. The Northwest RPC is not responsible for these. Questions of on-the-ground location can be resolved by site inspections and/or surveys by a registered surveyor. This map is not sufficient for delineation of features on-the-ground. This map identifies the presence of features, and may indicate relationships between features, but is not a replacement for surveyed information or engineering studies.



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Located:
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2023 Main St. (Bell Hill)
Woodchip biomass

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APPENDIX B: WATER SYSTEMS

The following is a list of the municipal water systems, known as fire districts. Included for each district are the number of buildings or people served.

1. Grand Isle Consolidated Water District
Buildings Served: approximately 722.
2. Fire District No. 4
Buildings Served: approximately 360.
3. Fish Hatchery System
Buildings Served: 1 [not for drinking water]

APPENDIX C: HISTORIC SITES

The Historic Sites listed below are listed in the Vermont State Register of Historic Places for the Town of Grand Isle. The Hyde Log Cabin, Site No. 0702-17, the Gordon-Center House, Site No. 0702-29, and the Union Church, Site No. 0702-80 are also listed in the National Register of Historic Places.

Name of Site	Site No.	Name of Site	Site No.
Round Barn Farm	0702-01	Depot Gallery	0702-02
Mead Property	0702-03	Hazen House	0702-04
Dodge Farm	0702-05	Camp Marycrest	0702-06
Horican Barn	0702-07	Norton House	0702-09
Point Farms, Inc.	0702-10	Point Farms, Inc.	0702-11
Morris House	0702-12	Smith House	0702-13
Perkins House	0702-14	PTO Benefit Shop	0702-15
Morway House	0702-16	Hyde Log Cabin	0702-17
Poquette House	0702-18	St. Joseph's Church	0702-19
Watson House	0702-20	Rowen House	0702-21

Name of Site	Site No.	Name of Site	Site No.
Bean House	0702-22	Harness House	0702-23
Robyor House	0702-25	Powell House	0702-27
Gordon-Center House	0702-29	Lipsett House	0702-30
More House	0702-31	Starbuck House	0702-32
Hoag House	0702-34	Westerly Camp District	0702-35
Richardson House	0702-36	Macomers Cottage	0702-37
Brown House	0702-38	Norris/Kech/Sheldon House	0702-39
Church House	0702-40	Stegner House	0702-41
Sartore House	0702-42	Scholtz House	0702-44
Guibord House	0702-45	Piter Poel House	0702-46
Barrett House	0702-47	Reigelman Cabin	0702-48
Cassidy House	0702-49	Shaw House	0702-50
Griswold House	0702-51	Caswell Property	0702-52
Johnson House	0702-53	Sylvester House	0702-54
Paradee House	0702-55	Silver House	0702-56
Santor House	0702-57	Poquette House	0702-58

Name of Site	Site No.	Name of Site	Site No.
Parizo House	0702-59	Picard House	0702-60
Gordon House	0702-61	Paradee House	0702-62
DeMars House	070263	Hanson Property	0702-64
Trombley Property	0702-65	Hock House	0702-66
Dubuques House	0702-67	Dubuque House	0702-68
Boudreau House	0702-69	Cootware House	0702-70
DuBuque House	0702-71	Oviatt House	0702-72
Morway Farm Complex	0702-73	Yurdin House	0702-74
Gomez House	0702-75	Pelkey House	0702-76
Pearl House	0702-77	Miller House	0702-78
Prouty House	0702-79	Union Church	0702-80
Town Garage	0702-81	Grand Isle Free Library	0702-82
LaMotte Property	0702-83	Cross Property	0702-85
J Poquette House	0702-86	School District Property	0702-87
Marycrest House	0702-88		

APPENDIX D: COMMUNITY PLANNING SURVEY

GRAND ISLE COMMUNITY PLANNING SURVEY 2023

Survey Response Summary

Overview

The Grand Isle Community Planning Survey received 162 responses. Over 95% of respondents have a primary residence in the town. Forty percent of respondents are 65 years or older, while only 25% are under 45. Residents love living in Grand Isle because it is a small, rural community with beautiful scenery and access to Lake Champlain. When asked if they could change one thing (Q3), many respondents said they would like to see a more established town center with small businesses and more public access to Lake Champlain. Most residents support a municipal town center with outdoor space for community events and space for indoor activities for all ages; however, there were several comments that the Municipal Town Center should not try to replace or repeat what is available at the Donaldson Rd Rec Park. Residents support more walking/biking trails and also improvements to make it safer to walk and bike along roads. Respondents also had plenty of ideas for the old library building, most commonly for Historical Society use. Although most respondents were excited to propose new ideas, spending transparency was a major concern for some. Many emphasized the importance of cost efficiency and Selectboard accountability.

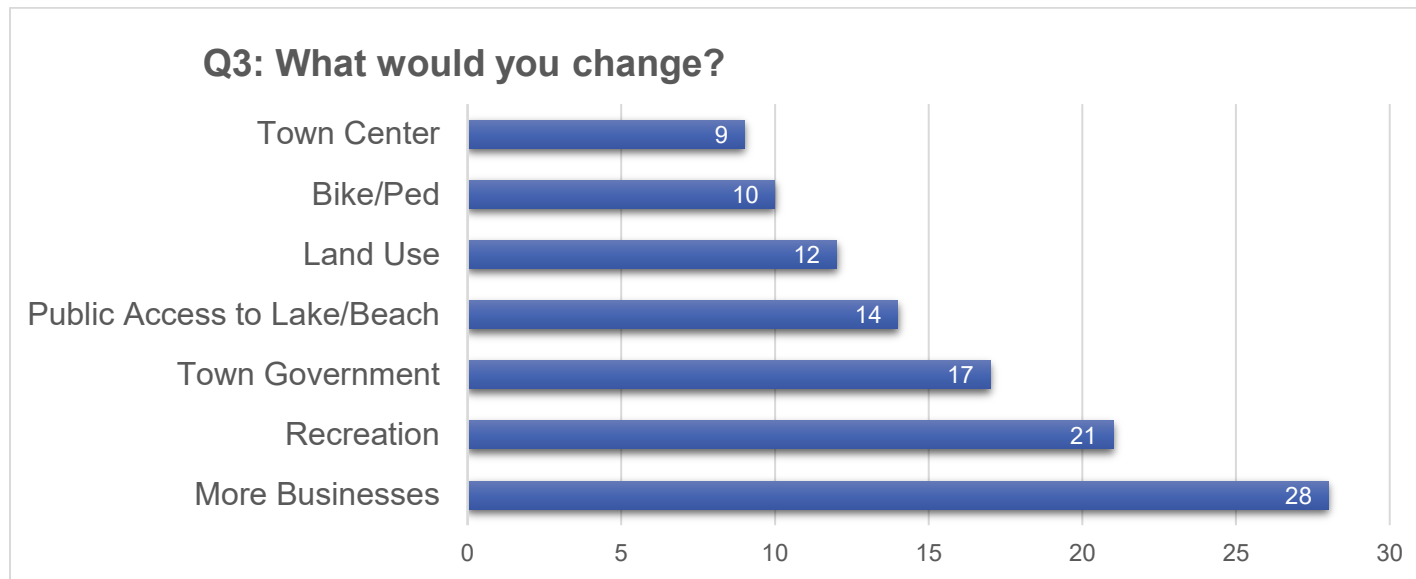


Q1: What do you like the most about living in Grand Isle?

Q2: What do you like the least about living in Grand Isle?

*This question is similar to question 3 and therefore garnered similar responses, so no summary is provided for brevity.

Q3: If you could change one thing about Grand Isle, what would it be?



More Businesses (18.79%)

- “Bring in retail, services. Pharmacy, bigger grocery, more coffee shops, basic goods store, hair salon, etc... we shouldn’t have to drive 30-40 minutes off the island to access basic services.”
- “Find way to increase businesses to allow for more jobs here in Town and places for residents to gather.”

Recreation (14.09%) and more specifically, public access to Lake Champlain (9.4%)

- “Build a town center and green, fitness, senior teen centers. Create places and add trails and bike paths.”

- “Have an area that can be made available for all uses, meetings, birthdays, social events at small charge to local residents.”

Town Government (11.41%)

- “Eliminate the general mood of contention among the Select Board members so as to help us make thoughtful and timely decisions.”
- “Local government transparency.”

Land Use (8.05%)

- “Return to more open spaces and hayfields, with less development.”
- “Decrease rate of development, increase public access to the lake.”

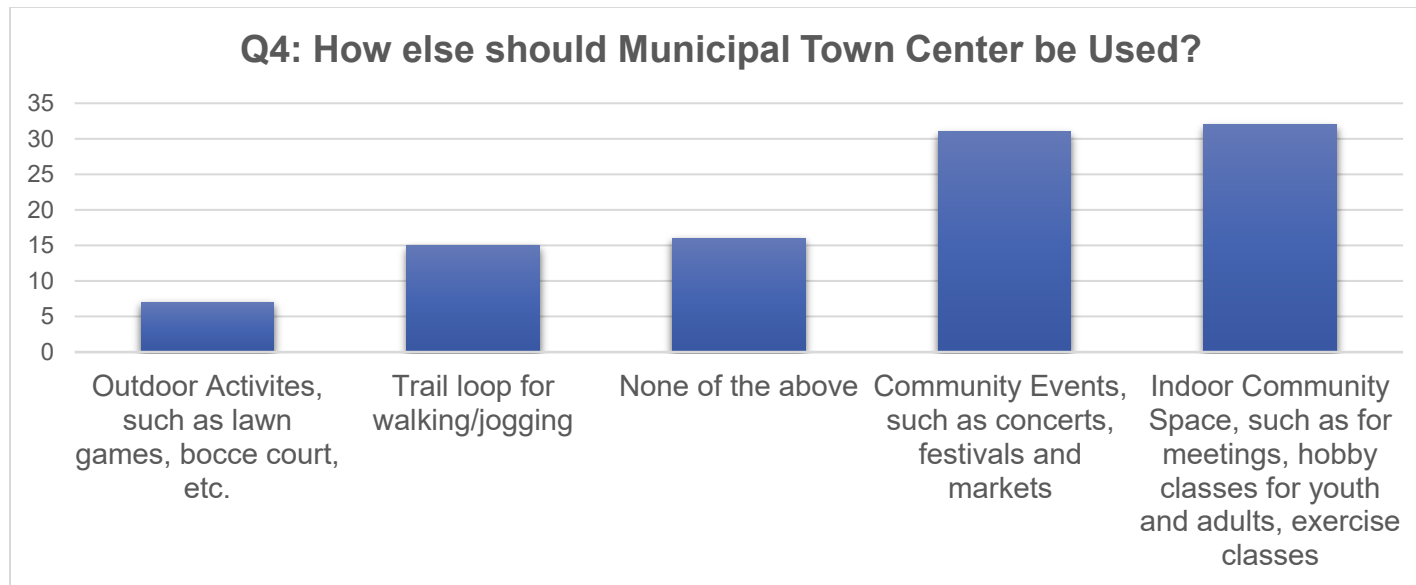
Bike/Pedestrian Infrastructure (6.71%)

- “I would improve accessibility for pedestrian traffic, particularly near the school, to the town office and library, to Emmon’s and beyond.”
- “We do NOT want bike tours and bike events on East Shore North. The road has many turns and spots with safety concerns. We pay for cars, trailers, ATV’s, snowmobiles but they do not pay.”

Town Center (6.04%)

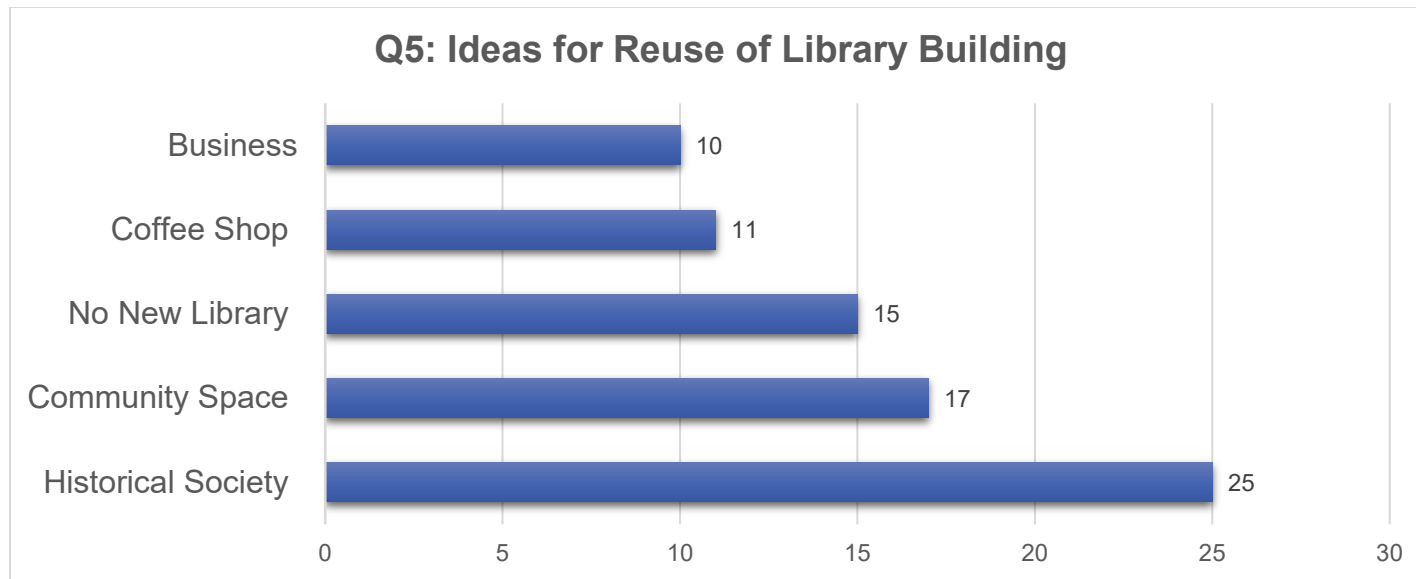
- “I would build a small-town center with sidewalks and potted and a few shops.”
- “Creating a visible town center on route 2 with traffic calming, easy access to business, sidewalks, and bicycle lanes.”

Q4: In addition to a Library and Town Offices, how would you like to see the Municipal Town Center Property be used? Check all that apply.



*Unfortunately, participants were not able to select multiple options. Many used the “Other (please specify)” option to indicate they would have selected all if possible. Out of the 50 respondents who selected “Other (please specify), over 50% said “All of the Above.”

Q5: When the town builds a new library, what are your ideas for what could be done with the old building?



Historical Society (19.69%)

- “The space might be good for historical items to be displayed and maybe as small meeting place for historical events.”
- “The building is only roughly 800 square feet. Possibly allow the historical society to take over and create a museum or allow for community members to rent for events such as bday parties, multi-level marketing pitches, bridal/baby showers.”

Community Space (13.39%)

- “Indoor Community Space, such as for meetings, hobby classes for youth and adults, exercise classes...childcare.”
- “Space for community events and classes.”

No New Library (11.81%)

- “I don’t think we need a new library. We should consolidate with So. Hero.”
- “Leave library alone as is. We do not need a new one.”

Coffee Shop (8.66%)

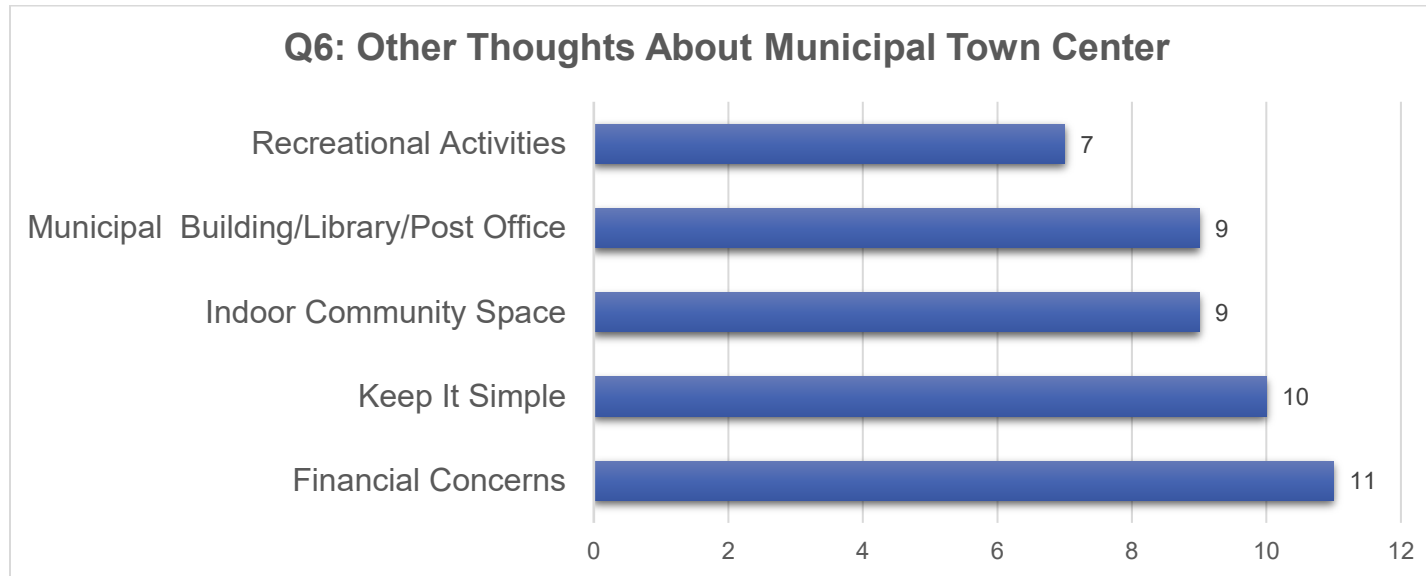
- “Coffee shop and bakery!”
- “Would love a coffee shop / bookstore in town”

Business (7.87%)

- “Rent to a local business, too small for community needs.’

- “It can be an incubator space for new businesses or become a coffee house or community information center.”

Q6: Is there anything else you would like to tell the Planning Commission about the vision for the Municipal Town Center Property?



Financial Concerns (11.11%)

- “Don't get too fancy and expansive (i.e., keep it simple so as not to get too costly and not a tax burden into the future)”
- “It should be designed to minimize long-term maintenance costs. Do it right from the start.”

Keep It Simple (10.1%)

- “Make efficient not flashy and over the top. We are small and quaint. The facility needs to resemble our town, not a big city.”
- “I'd like to see it's space and building simple design keeping with the historic vision of the town. In other words, don't create a space that is totally out of character with the rest of the town.”

Indoor Community Space (9.09%)

- “Keep the youth in mind! They are the ones who will use the space the most! Our community is in desperate need for gym space and every club/organization/team is constantly fighting over gym time at the school! Keep the community in mind! Why don't we

have a fall festival? Christmas dances to raise money with the fire dept? I am what Islanders call a transplant and where I come from the Fire Dept would put on BIG dances 2-4 times a year to raise money! DJ's, drinks, food, and it would be a huge event! \$\$\$ raised and it was a huge event our community would look forward too. Valentine's dances, summer BBQ, Fall chili fest, & their Christmas party. Grand Isle doesn't do ANYTHING! If the planning commission isn't planning on bringing the community together then forget the building and just put in a dog park."

- "A community greenhouse could provide produce for the food shelf, experience/learning opportunity for those interested in getting into farming/gardening, and an opportunity to provide horticultural therapy to perhaps those involved with CIDER, at-risk students, those recovering from trauma, and those battling depression (especially during the winter months)"

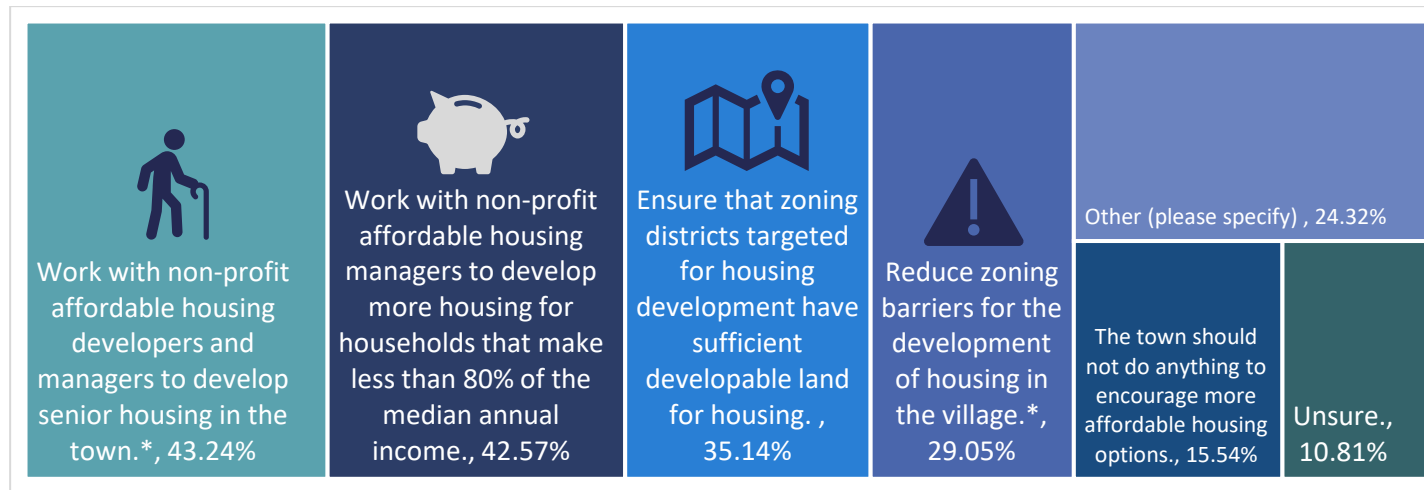
Municipal Building/Library/Post Office (9.09%)

- "Could current town hall be repurposed as a library? It seems to be bigger and brighter than the current one. The current library has long outlived its usefulness and if I had to choose one project it would be a library."
- "I think the reimagining of the post office is highest priority."

Recreational Activities (7.07%)

- "It should be designed as a place to welcome and engage the community in recreational activities."
- "Really liked the hockey/pickleball/special event proposal"

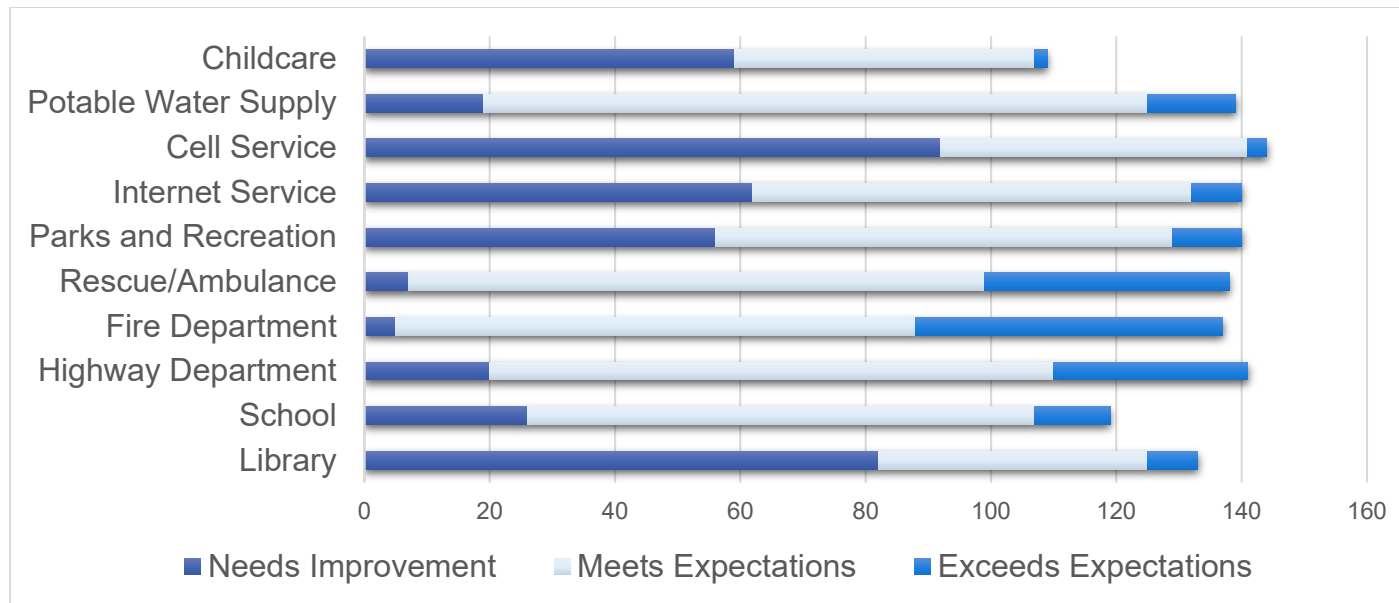
Q7: A third of the town's households are cost-burdened by housing (meaning that more than 30% of annual household income is spent on housing). What should the town do to encourage more affordable housing options in the town?



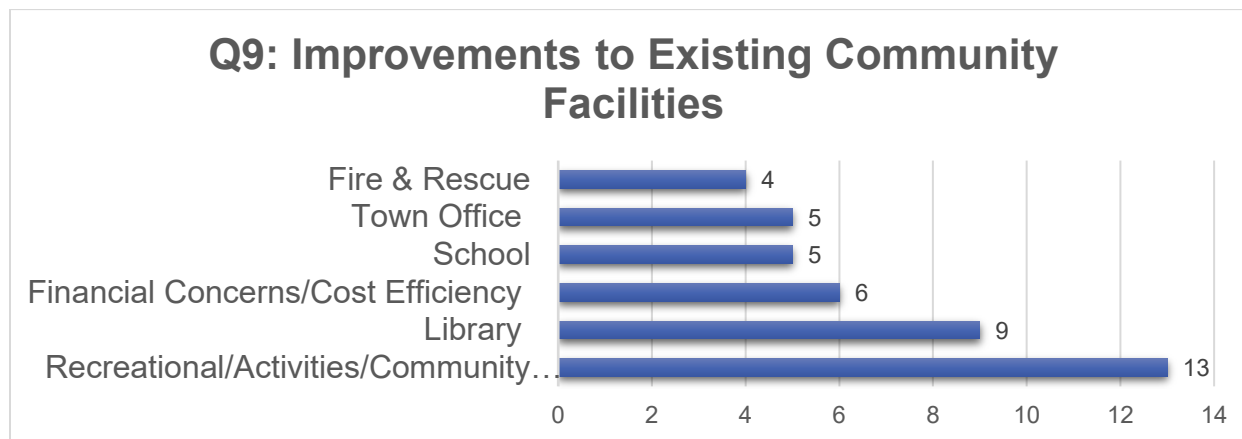
* Examples of non-profit affordable senior housing developers includes Champlain Housing Trust or Cathedral Square.

* Examples include minimizing the review process for multi-unit dwellings and reducing minimum lot size.

Q8: Do the community facilities and services in Grand Isle meet your needs?



Q9: What improvements would you like to see done to existing community facilities and services?



Recreation/Activities/Community Center (17.33%)

- “A better or improved place for swimming at the lake.”
- “Grand Isle state park needs to be accessible to day visitors. I would love to otherwise see a place that has beach access for all. More trails as well.”

Library (12%)

- “In general, the library is a great place to check out books, but there is little room to do much else. I think a larger space would definitely be beneficial for community use and potentially draw more patrons.”
- “Create a library like South Hero, or use the funds elsewhere and have the south Hero library be the joint town library.”

Financial Concerns/Cost Efficiency (8%)

- “Anything done should be paid by grants not tax dollars”
- “Cost effective preventive maintenance”

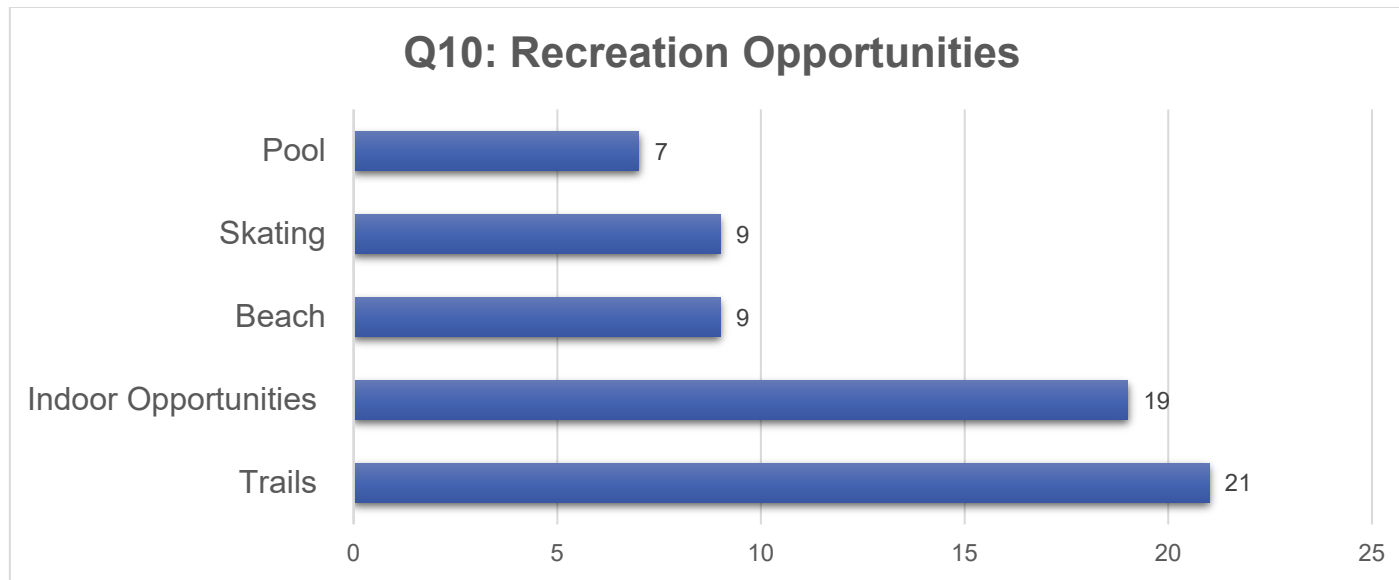
School (6.67%) & Town Office (6.67%)

- “School does not appear to be maintained as well as it could be.”
- “Updated town office”

Fire & Rescue (5.33%)

- “Merge Grand Isle Consolidated & Fire District #4, install piping that could support fire hydrants.”
- “Use the money you are talking about for our volunteer Fire and Rescue.”

Q10: What recreation opportunities would you like to see offered that are not currently offered?



Trails (21.88%)

- “I would like to see more accessible walking trails. I know there’s a lot of seniors in the community, and I myself have two small children. It would be nice to have a natural path where the children could come and learn all about Vermont’s native species, the watershed here, the unique plants on the islands, the migrating birds. There’s so much rich natural history on the island that it would be really nice to see that celebrated and able to be explored in a natural way for the public.”
- “Open Rail trail for biking, x country skiing”

Indoor Opportunities (19.79%)

- “Indoor activities, ping pong table, indoor tennis/pickleball”
- “More play spaces that are inviting/inclusive for children, and that are available year-round.”

Beach (9.38%)

- “A public swimming beach!!! or else find a way to get Grand Isle State Park to let local residents swim there. I can't believe we can't even walk on the property....it's a STATE PARK.”
- “A beach that has real parking, stairs and a designated swimming area where boats cannot go”

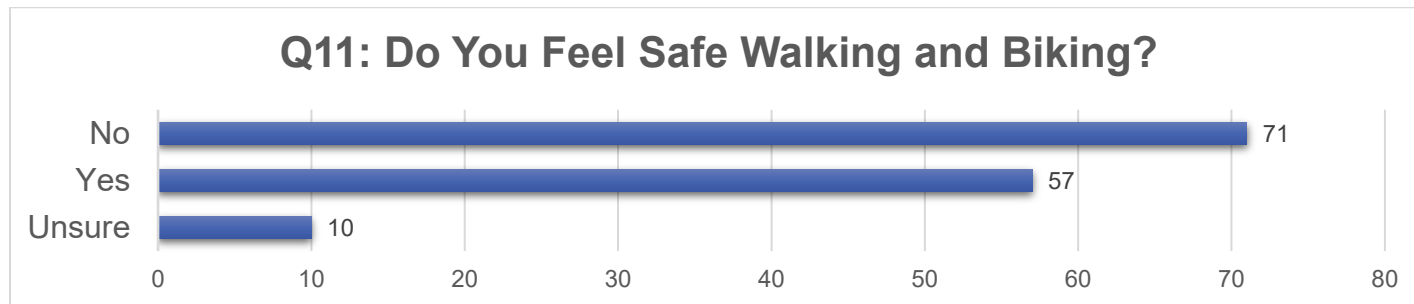
Skating (9.38%)

- “I would love a town park maybe an ice-skating rink for locals”
- “Ice skating on climate-controlled ice...”

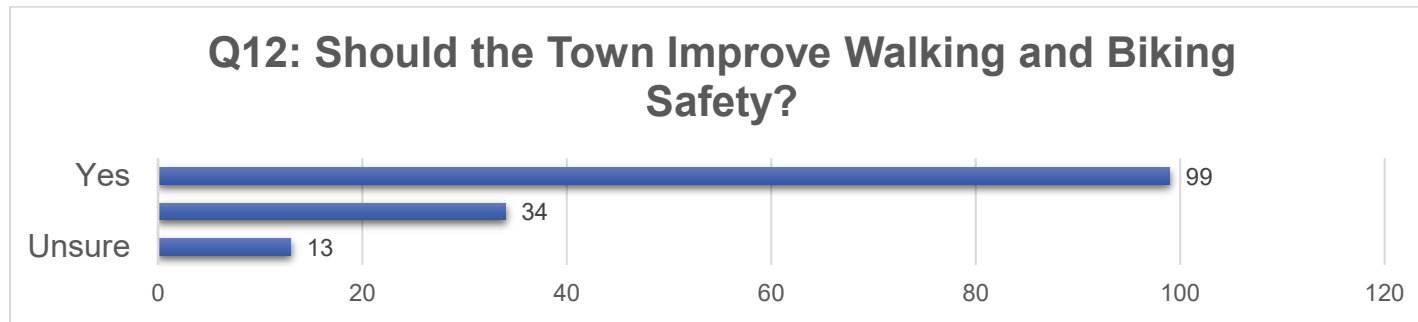
Pool (7.29%)

- “I like to swim for fitness and there isn't a good place to do that in the lake.”
- “Community swimming pool”

Q11: When you choose to walk or bike in Grand Isle, do you generally feel safe from traffic in doing so?



Q12: Should Grand Isle make infrastructure improvements to specifically accommodate pedestrians and bicyclists?



Q13: Where is your primary residence? (In order to consider Grand Isle a primary residence you must live here for at least 180 days a year)

95.92% of respondents chose "Grand Isle Town." Six respondents chose out of state locations.

Q14: What is your age?

