

ISLE LA MOTTE TOWN PLAN

DRAFT 2024-2032

Prepared by the Isle La Motte Planning Commission

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Introduction

Vision for the Future of Isle La Motte

The Town of Isle La Motte believes in the following vision for the future of the Town, its residents and its visitors:

The island is a thriving community that embraces its rich history, natural surroundings, and of course the picturesque shoreline of beautiful Lake Champlain.

While the island maintains its distinct character, the resources of the island also allow for numerous recreational and local agricultural opportunities to foster a sense of community, healthy lifestyles and a sense of uniqueness that encourages residents to remain rooted while enticing visitors to return time and time again.

Purpose

The purpose of this town plan is to guide the future development of the Town of Isle La Motte. The town plan is a way for residents to develop a common vision for Town. The plan describes the goals of our town, what we hope it becomes in the future and how we will work together to get there.

The town is authorized to prepare and adopt a Municipal Plan via Chapter 117, Title 24 of the VSA. The plan will be updated every 8 years. Residents, community groups, and anyone with an interest in the Town are encouraged to provide input into this ever-continuing process to the Isle La Motte Planning Commission.

Community Engagement

The goal of the Town Plan is to reflect the vision of Isle La Motte residents. To achieve this goal, the Town Planning Commission conducted a survey and held two public outreach events. The Town Plan survey was distributed online and at the Town Office from October-November 2023. The survey received 104 responses. Results from the survey have been included throughout the plan, a full summary of the survey results can be found in the appendix. Compared to Census data, younger residents under age 34 were underrepresented in the survey. To reach additional residents, the Town put out a second shorter survey from April-June 2024. The survey received 19 additional responses which were combined with the results of the first survey.

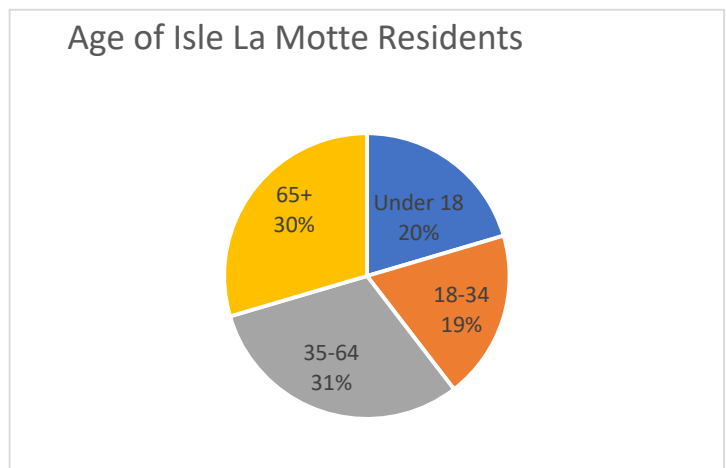
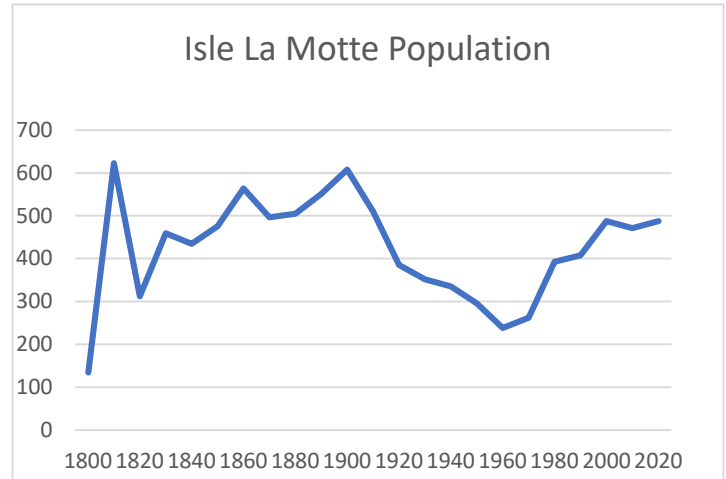
In addition to the survey, the Town held two public outreach sessions focused on recreation, community, and town services. The first outreach session was held on April 27th and had over 20 participants. Participants were asked to give input on possible uses for the historic and new Town Hall, recreation and town services. A second outreach session was held on May 29th and had over 15 participants. Participants rated their top ideas for each focus area. Results from these outreach sessions were used primarily to inform the Town Services, Facilities and Recreation portions of the plan.

Population & Households

Isle La Motte has 488 year-round residents (U.S. Census). The population in Isle La Motte grew quickly from 1970 to 2000 but has not grown much since 2000. Isle La Motte also has many seasonal residents who are not included in the available population statistics.

The median age of an Isle La Motte resident is 55.4 years. The number of residents over the age of 65 has more than tripled from 2010 to 2020 (U.S. Census American Community Survey). Based on current trends, any future growth in Isle La Motte's population would likely come from migration into the community (Department of Health Agency of Human Services Vital Statistics).

There are 229 households in Isle La Motte, an increase of 25 households since 2010 (U.S. Census). The average household in Isle La Motte has 2.1 people living in it. The number of households is growing faster than the population because the average household size has decreased over time.



Action Items

The Town Plan includes a number of strategies to implement the goals & objectives of the plan. The table below outlines the key plan actions, recommended timeline and who is responsible for the action. The timing for each action is either ongoing, long (5+ years), medium (2-3 years) or short (less than 2 years).

| Historic, Cultural and Natural Resources | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|----------|
| Action | Responsible Party | Timeline |
| Maintain and restore Town-owned historical buildings & natural resources. | Selectboard | Ongoing |
| Investigate resources to assist and, where possible, partner with property owners to preserve and restore historical buildings & natural resources. | Selectboard | Ongoing |
| Land Use | | |
| Update flood hazard ordinance as necessary to maintain compliance with FEMA Flood Insurance Program. | Selectboard | Short |
| Transportation | | |
| Install the digital speed feedback sign in the Village | Selectboard | Short |
| Investigate cooperative efforts with other towns to provide road maintenance services | Selectboard | Medium |

| | | |
|---------------------------------------------------------------------------------------------------------------------|-----------------------------------|--------|
| Explore options to fund improved bicycle facilities and signage on town roads | Planning Commission/Selectboard | Long |
| Housing | | |
| Pursue opportunities to partner with organizations to build affordable housing. | Planning Commission | Long |
| Economy | | |
| Seek Village Designation for the Village to provide tax credit opportunities for the Village | Planning Commission & Selectboard | Short |
| Utilities, Facilities, and Services | | |
| Explore opportunities to expand library services. | Selectboard/Planning Commission | Long |
| Plan for future use of the new town hall as a multipurpose community center that would serve residents of all ages. | Selectboard/Planning Commission | Medium |
| Pursue opportunities for restoring and utilizing the historic Town Hall. | Selectboard/Planning Commission | Medium |

Historic, Cultural and Natural Resources

Historic & Archeological Resources

Prior to arrival of European settlers, Native American nations likely gathered in Isle La Motte. In 1609, Isle La Motte was the first landing place of Samuel de Champlain. Vermont's first European settlement, Fort Ste Anne was built in 1666 by French soldiers, but was abandoned by 1671. The Town of Isle La Motte was chartered in 1779. Early industries included farming and quarrying. Black marble from Isle La Motte can be found in many important buildings, including the U.S. Capitol. During the War of 1812, a battle took place on the shores of Isle La Motte (Source: Isle La Motte Historical Society).

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

Historical Resources. Three buildings in Isle La Motte are on the National Register of Historic Places: the Ira Hill House, the Methodist Episcopal Church of Isle La Motte and the South Stone School House. The Town also has 41 sites on the state historic register. The Town encourages efforts to preserve historic structures.

Natural Resources

Water Resources

Groundwater

Most residents rely on groundwater aquifers for water. The Town's limited aquifer sources should be protected to ensure good water quality. A study of reported well water yields in 2013 found that well yields in Grand Isle County tend to be lower than state averages.

Lake Champlain

As an island community, the health and water quality of Lake Champlain is critical for Isle La Motte. Phosphorus pollution from a variety of sources has threatened the water quality of the lake. Pollution has increased the number of cyanobacteria blooms that threaten the health of people and animals. The east shore of Isle La Motte has experienced cyanobacteria blooms in recent years. The Town encourages efforts to reduce pollution of the Lake.

Wetlands & Streams

Isle La Motte falls into the "Northern Lake Champlain Direct" watershed. Water from streams and wetlands generally flow directly into Lake Champlain. Pollution in streams and wetlands should be avoided. Isle La Motte has several small streams, but no rivers.

Wetlands are areas that are flooded or saturated by water for varying periods of time during the growing season. Wetlands are important to the Town for many reasons. Wetlands provide a space for flood waters to go, reducing the impacts of floods. Wetlands also filter water, protecting groundwater and other surface waters. They provide valuable species habitats, educational and recreation opportunities, and scenic beauty. The natural resources map shows the location of mapped wetlands, however, not all wetlands are mapped. The largest mapped wetland in Isle La Motte stretches across the middle of Isle La Motte from Jordan Bay to the west shore of Town ("The Marsh"). A portion of this wetland is conserved through a conservation easement and the remainder is in private ownership.

Flood Hazard Resiliency

Flooding is the most common natural hazard in Isle La Motte. The most common type of flooding in Isle La Motte is inundation flooding that occurs during the spring. Inundation flooding occurs when water from the Lake or other bodies rises and spreads to surrounding areas, known as floodplains.

The Federal Emergency Management Agency (FEMA) maps floodplains that have a 1-percent chance of inundation flooding occurring in a given year, which are referred to as the Special Flood Hazard Area. All shorelines in Town as well as the large wetland in the middle of Town are in the special flood hazard area (see water resources map).

Development within the floodplain can cause damage to property and put people at risk. Development may block the natural flow of water or result in higher future flooding. One strategy to reduce the risk of developing in the floodplain is to require all development to be raised up above possible floodwaters. For Lake Champlain, FEMA has determined that a flood that has a 1% chance of occurring each year would have a flood elevation of 102 feet.

Parts of Isle La Motte, such as Jordan Bay and sections of Main Street, are the most at risk for flooding from Lake Champlain. Main Street and other roads in these areas may need to be elevated in places at some time in the future to minimize flood damage.

The maximum elevation observed at USGS gaging station at Rouses Point, New York for the period of record from March 1871 to September 2015, is 103.2 feet on May 6, 2011. This record was caused by excessive rain in the region which caused severe floods across northern Vermont and the Champlain Valley.

During the 2011 flood, VT Route 129, the only road access to Isle La Motte, was severely threatened due to flooding and waves from Lake Champlain. The flood waters effectively cut the island in half, requiring residents to use boats to traverse the island. A more severe flood could pose serious access problems for residents of Isle La Motte. Flooding on VT Route 129 is of particular concern because this is the only road to the Town of Isle La Motte from Vermont or New York.

Another type of flooding that occurs in Vermont is fluvial erosion. Fluvial erosion occurs when fast moving waters in streams and rivers cause erosion of the bank. For smaller streams with a drainage area of between .5-2 square miles, the Vermont Agency of Natural Resources recommends limiting development in a stream corridor of at least 50 feet from the top of the bank to protect human life and infrastructure. Fluvial erosion is generally not a major risk in Isle La Motte as there are only a few small streams in Town.

Air Quality

Air quality is generally high throughout Vermont, especially in rural communities such as Isle La Motte. 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 impacted by weather patterns which carry pollutants from other areas. All efforts should be taken to maintain good air quality in Isle La Motte.

Land Resources

Earth Resource Extraction

Sand, gravel and stone, are important resources particularly for use in construction and road maintenance. Mapped soil data from the NRCS shows some areas of gravel and sand deposits, however some of these areas are in wetlands that may not be suitable for extraction. Historically, black marble has been quarried in Isle La Motte. There is one current marble quarry located off Quarry Road which infrequently quarries marble. It is important to ensure that any quarry, public or private, is properly designed, engineered and managed and that the project site is restored at the end of the quarry's lifespan.

Rare and Irreplaceable Areas

Chazy Reef. Chazy Reef, the oldest known coral reef in the world is located in Isle La Motte. In 2009, it was designated a National Natural Landmark. The public can view portions of the fossilized reef at Goodsell Ridge Preserve and Fisk Quarry Preserve. This area should be protected from incompatible development.

Rare, Threatened and Endangered Species: There are several areas of Isle La Motte where rare, threatened or endangered species have been located, as shown in the natural resources map. Any development should be carefully planned to limit impacts to these species.

Holcomb Bay Fishing Access Area: The State of Vermont owns 29 acres on the East Shore of Isle La Motte, which includes a fishing access area.

Habitat Blocks

Maintaining large areas of habitats like forest and wetlands supports traditional animal species and human activities such as forestry, hunting, and recreation. Even low-density residential development can fragment these areas, threatening their health, function and value. There are several smaller habitat blocks in Isle La Motte, shown on the natural resources map. The majority of these lands are in private ownership and are not formally conserved.

Scenic Resources

A scenic view is a publicly accessible area where an important and characteristic open vista may be viewed by the public. Scenic views may be from public roads, public recreation areas and from the lake.

Natural Resources: Goals & Policies

Goals

1. Encourage conservation of significant natural resources and areas, historically significant buildings, archeological and scenic resources.
2. Foster a flood resilient community

Policies

1. Encourage the preservation of archaeological resources and structures of historic value.
2. Support efforts to improve the water quality of Lake Champlain, streams, wetland areas and groundwaters.
3. Support efforts to conserve high priority habitat blocks, wetlands, rare and irreplaceable natural areas and other significant natural resources in Isle La Motte.
4. Ensure that all earth resource extraction activities are compatible with existing development and that all sites are properly restored.

5. Maintain the Town's flood hazard ordinance to protect development from flood hazards.
6. Continue to plan for flood emergency preparedness and response.

TOWN OF ISLE LA MOTTE




Natural Resources

LEGEND

Natural Resource Features

-  Deer Yards
-  Rare, Threatened or Endangered Species
-  Significant Natural Community
-  Wetland
-  Surface Water


Habitat Block & Wildlife Corridors - Block Acreage

-  21 - 100
-  100 - 200
-  More than 200

Transportation Features

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

Other Feature

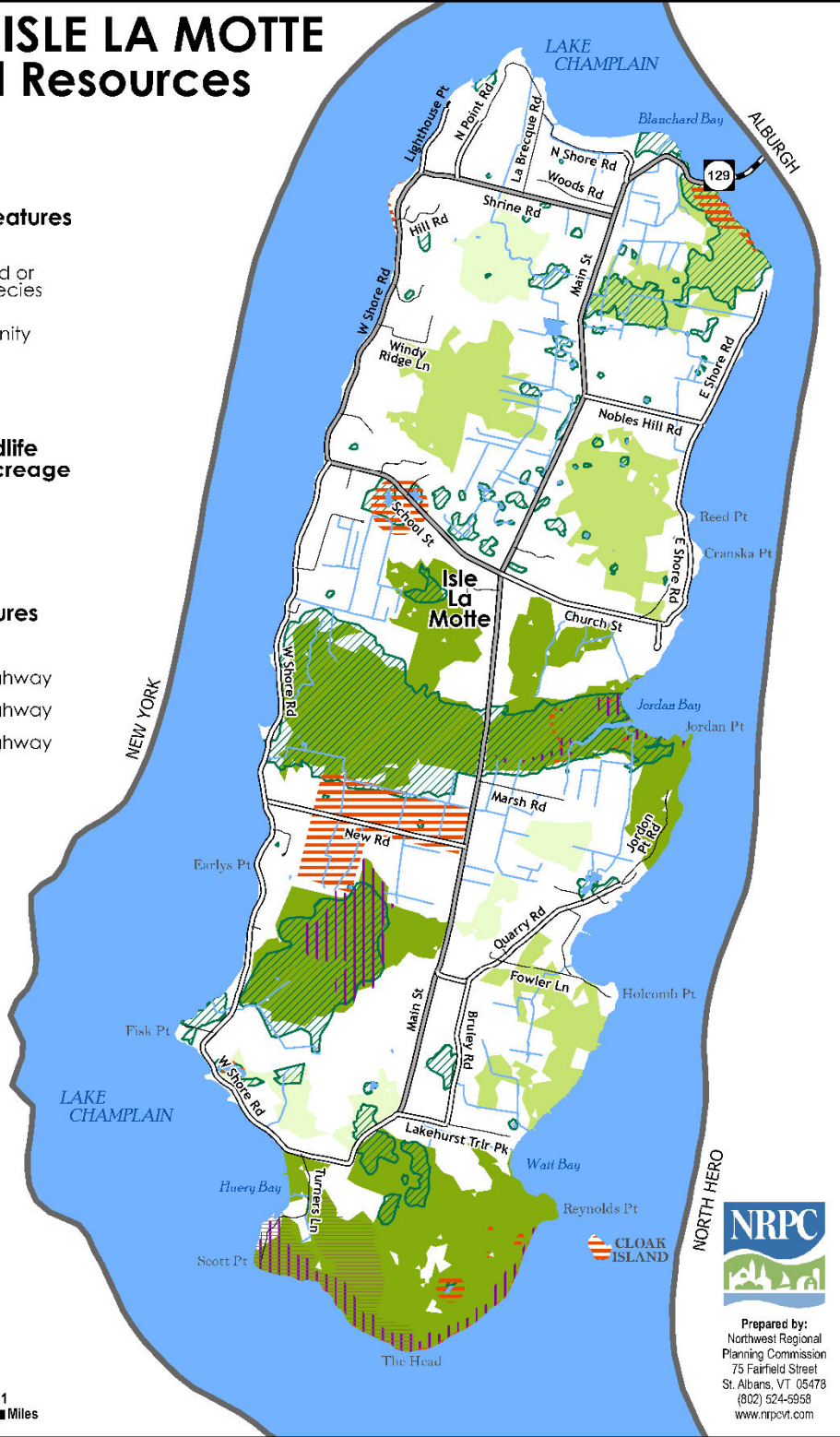
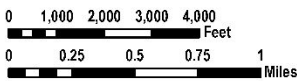
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TOWN OF ISLE LA MOTTE

Water Resources

LEGEND

Water Resource Features

- 100 Year Flood Zone
- Surface Water

Transportation Features

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

Other Feature

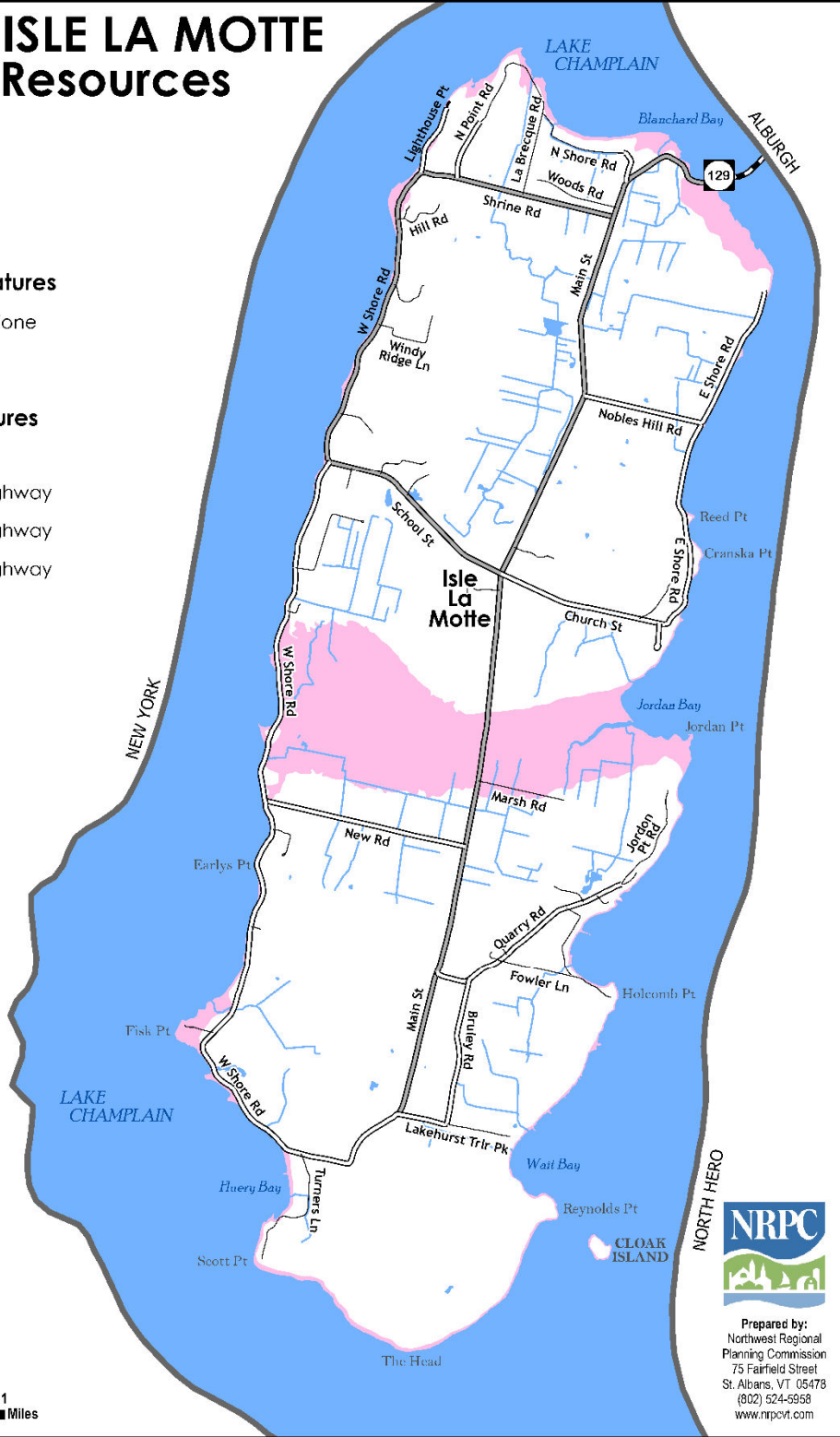
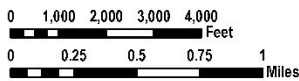
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Land Use

Current Land Use

Habitat Blocks

The largest habitat block in Isle La Motte is “the Marsh’ located in the center of the island. For more information, see the natural resources chapter.

Agricultural Soils

Prime agricultural soils are soils which can produce the highest crop yields while in agricultural use. Development on these soils permanently eliminates the ability to farm those areas in the future. The largest areas of prime agricultural soils in Isle La Motte are located on the south end of Main Street and at the northeast corner of the island.

Septic Suitability

A majority of Isle La Motte’s soils are poorly suited for on-site septic. Good soils for development exist along School and Church Street and at the intersection of those streets and Main Street, as well as in the northwest portion of the island. Moderately suited soils for development are scattered throughout Town.

Current Development Patterns

The majority of Isle La Motte’s land areas is made up of open-space and agricultural land uses, along with some areas of tree canopy. Low-density residential development can be found along all roadways in town, with a concentration of development along the shorelines and in the Village.

Future Land Use

The Town of Isle La Motte has elected not to enact zoning bylaws. The purpose of this chapter is to establish a vision for future land use that broadly characterizes the types of development appropriate in Town. The Town’s future land use areas will be considered in permits for state land use permits such as Act 250 and Section 248.

Future Land Use Areas

Village Planning Area: The purpose of the Village Planning Area is to provide for a concentrated area of residential, commercial, and municipal development. Development in the Village center should be of a scale that is compatible with the existing character of the village.

Rural Agricultural Planning Area: The purpose of the Rural Agricultural Planning Area is to provide for rural residential development at low densities while maintaining agricultural lands and open space. Small-scale commercial and light industrial uses that fit with the areas rural character may be appropriate, provided they do not contribute to a pattern of strip development.

Flood Hazard Overlay Planning Area: The flood hazard overlay applies to all areas within the FEMA Special Flood Hazard Area. The purpose of the Overlay Planning Area is to prevent increases in flooding caused by development in flood hazard areas, to minimize future public and private losses due to flood, and to promote public health, safety, and general welfare. Designation of this area is also required for continued participation in the National Flood Insurance Program (NFIP) and is regulated under the Town’s Flood Hazard Area Regulation Ordinance. Development in this area shall meet the standards of Isle La Motte’s flood hazard ordinance.

Isle La Motte Village Center

Isle La Motte plans to pursue a Village Center designation for Isle La Motte Village to promote small-scale economic development in the village. A Village Center designation would provide several benefits, including priority consideration for state grants and access to tax credits.

Land Use: Goals & Policies

Goals

1. Maintain Isle La Motte's historic settlement pattern of rural lands with a compact village.

Policies

1. Encourage preservation of open space and agricultural land.
2. Encourage new residential development primarily in the village.
3. Encourage clustering of residential development outside of the village.
4. Ensure that development in the floodplain meets flood hazard mitigation standards.

TOWN OF ISLE LA MOTTE

Current Land Use

LEGEND

Land Use Features

- Built Up
- Bare Soil
- Grass/Shrub
- Tree Canopy
- Surface Water

Transportation Features

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

Other Feature

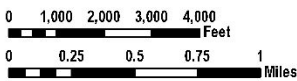
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TOWN OF ISLE LA MOTTE

Future Land Use

LEGEND

Future Land Use Features

- Village
- Rural/Residential
- Surface Water
- 100 Year Flood Zone

Transportation Features

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

Other Feature

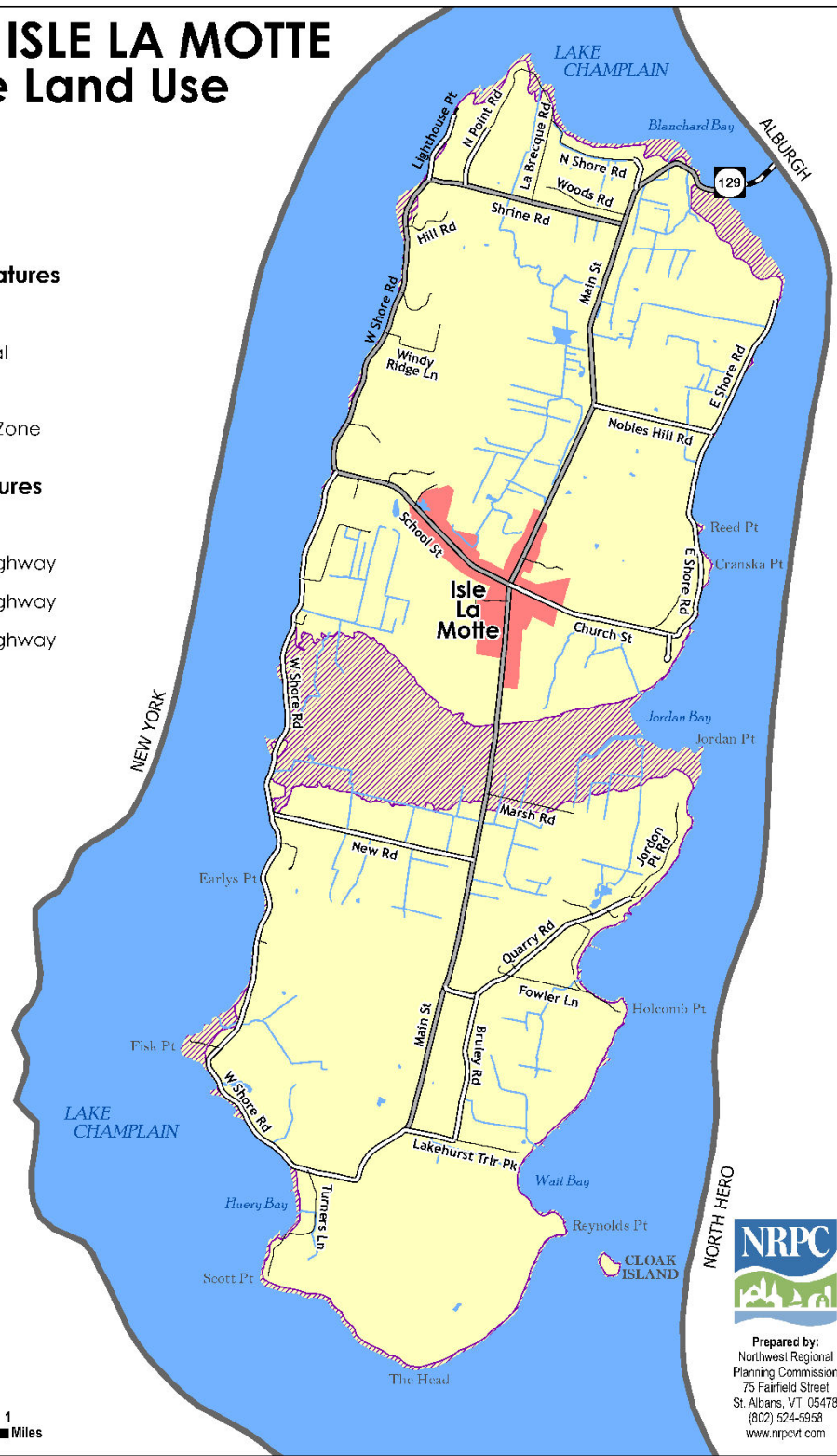
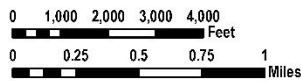
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Transportation

Roads & Bridges

Roads

There is one state highway in Isle La Motte, VT 129. Isle La Motte has 18.8 miles of town roads, the majority of which are paved.

| Classification | Description | Miles |
|-------------------------------|-----------------------------------------------------------------------------|-------|
| State Highway (VT 129) | State highways with route number. | .41 |
| Town Class 1 | Extensions of state highway routes that carry a State highway route number. | 0 |
| Town Class 2 | Most important routes in Town as determined by the Selectboard. | 7.9 |
| Town Class 3 | Majority of roads in Town. Maintained and passable year-round. | 10.4 |
| Town Class 4 | Roads which may not be maintained or passable year-round | .12 |

In 2018, the State developed the Municipal Roads General Permit (MGRP) which requires municipalities to complete work on town roads to reduce stormwater-related erosion, promoting good water quality. Isle La Motte has met its obligations to improve roadways under the permit since 2018.

Bridges

The only bridge in Isle La Motte is the state-owned causeway to the island on VT 129. The bridge is considered sufficient according to the state rating system. All efforts should be made to ensure that the bridge remains in good condition as it is the only road that leads off of Isle La Motte.

Maintenance Priorities

Each year the Road Commissioner and Highway Department identify projects for the following year. The majority of survey respondents rated the town's roads as good with some maintenance needed.

Bicycle and Pedestrian Facilities

Isle La Motte does not currently have any specific bicycle and pedestrian facilities. In the summer months, Isle La Motte experiences significant bicycle traffic. Many residents have noted that this creates safety challenges due to narrow roads, high vehicle speeds and lack of signage/bicyclist education. The majority of survey respondents supported adding shared road signage and pavement markings (56%) and expanding road shoulders (58%) to improve safety. There is not currently enough funds in the Town budget to widen road shoulders. Most respondents did not view expanding pedestrian infrastructure as a high priority. Speeding is also a concern, especially along Main Street. Efforts to reduce speeding and expanding road shoulders would benefit both bicyclists and pedestrians.

Other Transportation Systems

Public Transportation

There is no public transportation in Isle La Motte. The nearest bus stop is in Alburgh and connects to Swanton, Highgate, St. Albans and Georgia. C.I.D.E.R provides transportation for seniors and residents with disabilities. Go! Vermont maintains a list of carpooling opportunities. Given Isle La Motte's small population, it is unlikely that public transportation will be expanded to the island. The Town could designate a park & ride location to encourage carpooling.

Rail & Air

Amtrak provides passenger rail service from St. Albans, VT to Washington DC via the *Vermont* rail service, from Burlington, VT to Washington DC via the *Ethan Allen* rail service and from Rouse's Point to Montreal and New York via the *Adirondack*. Passenger air service is available at Burlington International Airport in South Burlington, VT, the Plattsburgh International Airport in Plattsburgh, NY, the Montréal-Trudeau International Airport, and the Montreal-Mirabel International Airport in Montreal, Canada.

Transportation: Goals & Policies

Goals

1. Maintain a safe and functional transportation network for vehicles, pedestrians, and bicyclists.







Policies

1. Maintain town roads in good condition as municipal budgeting and natural contingencies allow.
2. Where space allows, new construction or major reconstruction of major roads in Isle La Motte should include wider shoulders for bicyclists and pedestrians.
3. Support state and regional initiatives that promote alternatives to single-occupancy vehicle travel.
4. Support C.I.D.E.R.'s efforts to provide transportation to senior and disabled residents.

TOWN OF ISLE LA MOTTE Transportation System

LEGEND


Road Surface Features

-  Paved
-  Gravel
-  Soil or Graded & Drained Earth
-  Unimproved/Primitive
-  Impassable or Untraveled
-  Unknown

Road Class Features

-  State Highway
-  Class 2 Town Highway
-  Class 3 Town Highway
-  Class 4 Town Highway

Other Feature

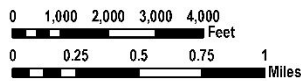
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Housing

Existing Housing Stock

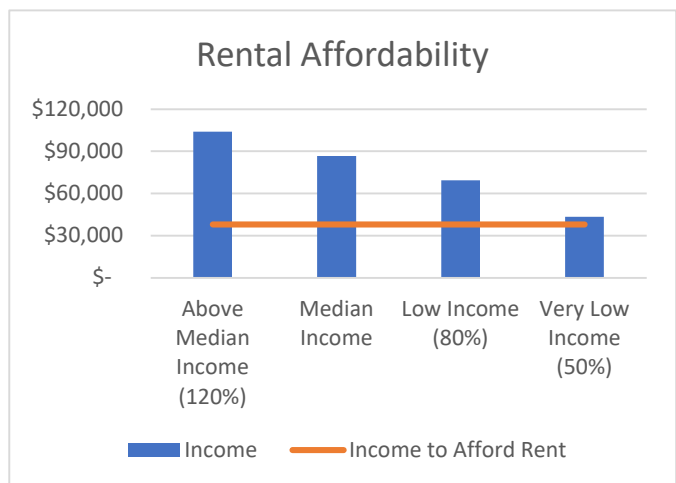
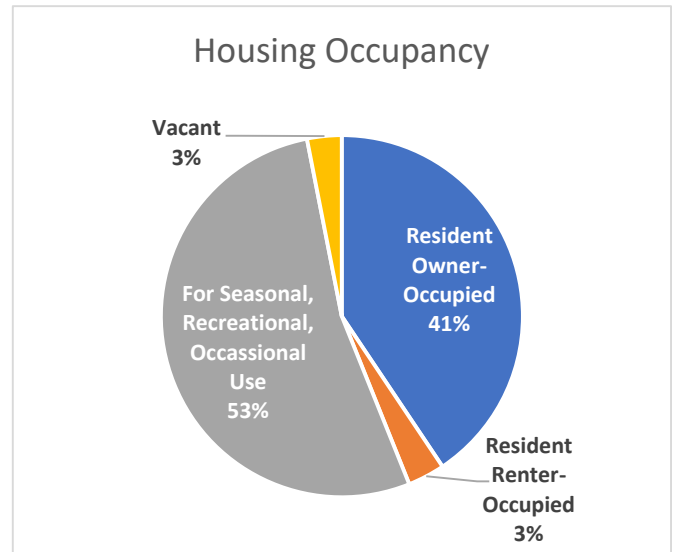
There are 485 housing units in Isle La Motte. The majority are seasonal units (53%), followed by owner-occupied units (41% (U.S. American Community Survey¹).

Housing Affordability

Housing affordability is defined under Vermont state law as:

- 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, MSA median income, or statewide median income.
- 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.

In Isle La Motte, the highest income of those referenced in the definition above is the county median household income which is \$86,639 (U.S. American Community Survey).



Source: U.S. American Community Survey

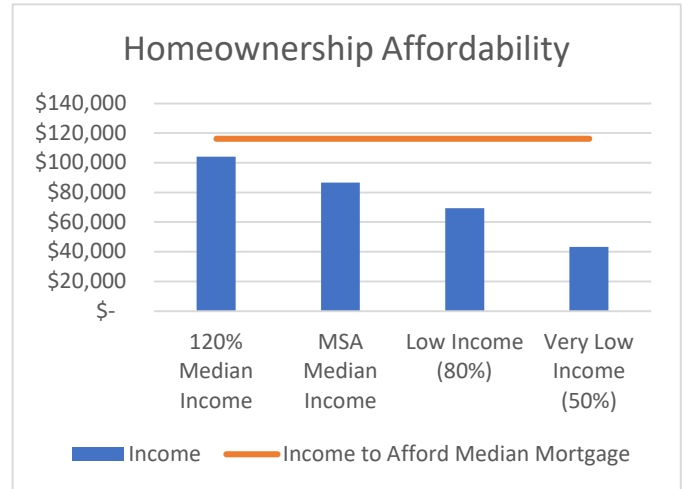
¹ The U.S. Census American Community Survey are surveys run yearly by the U.S. Census to randomly selected households.

Rental Affordability

The average rent with utilities in Isle La Motte in 2022 was \$950 (U.S. Census American Community Survey). Renting is generally affordable to low-income county residents. However, only 3% of all housing in Isle La Motte is renter-occupied.

Homeownership Affordability

The average home sale price in Isle la Motte in 2022 was \$320,000 (Vermont Property Transfer Tax) According to the VHFA affordability calculator, to afford a mortgage, taxes and insurance for a home that costs \$320,000 a household would need to have an income of \$116,090. Homeownership is not affordable to those making 120% of the county median income.



Source: Property Transfer Tax Records via Housingdata.org

Future Housing Needs

Demographic trends in Isle La Motte show that the average household is getting smaller, and the average resident is getting older. Therefore, there will likely be a need for smaller and age-friendly housing units in the future. Additionally, there is a need for more affordable housing options.

Seasonal housing will likely continue to be a major portion of Isle La Motte’s housing stock. Seasonal housing can be an advantage for the Town, as seasonal households pay taxes but typically use fewer municipal services. However, demand for seasonal housing can also make it difficult for new residents and the adult children of existing residents who are looking for affordable housing options.

Housing: Goals & Policies

Goals

1. Encourage the availability of safe, adequate, and affordable housing for Isle La Motte residents.

Policies

1. Support state, regional and non-profit efforts to provide a variety of quality housing types, especially senior housing and affordable housing.
2. Share information about programs and resources that lower the cost of home ownership or rental and assist in the preservation and maintenance of existing housing units, such as energy conservation, weatherization, utility assistance, and HomeShare Vermont.

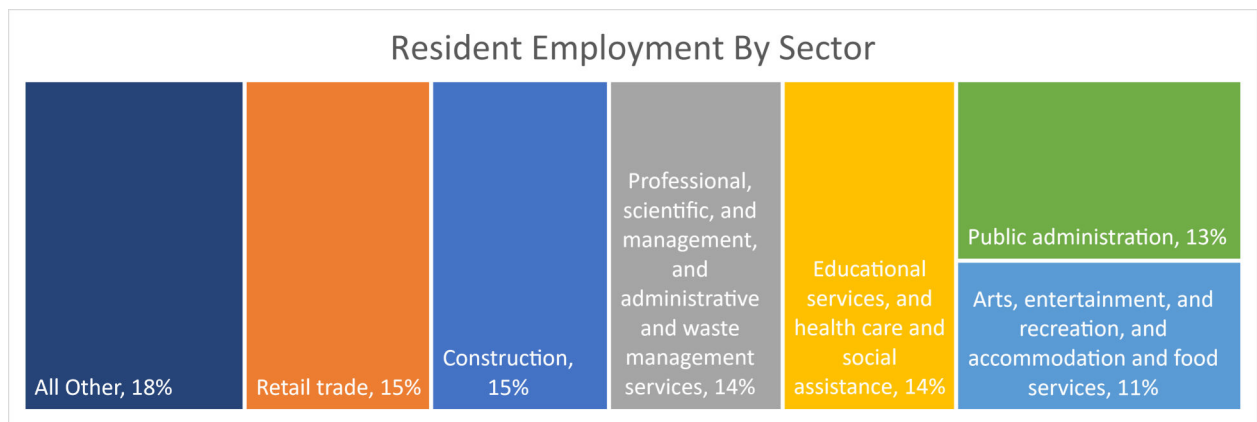
Economy

Workforce

Isle La Motte has 257 residents in the labor force, with an unemployment rate of 1.6% (Bureau of Labor Statistics). The majority of residents work outside of the town (U.S. Census on the Map). Roughly 21% of Isle La Motte’s residents work from home. (U.S. American Community Survey). Less than one-half of Isle La Motte’s residents have access to broadband internet (Vermont Department of Public Service). With the increase in residents working from home, there is a need for high-speed broadband in Town.

| County | Percent of Commuting Residents |
|---------------------|--------------------------------|
| Chittenden Co., VT | 37.6% |
| Franklin Co., VT | 25.4% |
| Grand Isle Co., VT | 17.3% |
| Clinton Co., NY | 6.1% |
| All Other Locations | 13.6% |

Source: U.S. Census OnTheMap



Source: U.S. American Community Survey

Compared to state averages, Isle La Motte has a higher percentage of residents who have graduated high school (98.5%), but a lower percentage of residents who have a bachelor's degree (29.5%) (U.S. American Community Survey). The most common employment sectors for residents are retail and construction (U.S. American Community Survey).

The median household income is \$60,417, slightly less than the state average (U.S. American Community Survey). The poverty rate in Isle La Motte is 10.5%, the same as the state average (U.S. American Community Survey).

Businesses

In 2021, there were 19 businesses² in Isle La Motte with 46 total employees (Vermont Department of Labor). The most common business types are goods producing businesses and information, professional & business services. According to the survey, the top three businesses Isle La Motte residents would like to see in Town are restaurants, home-based businesses and resource-based businesses such as farming or forestry.

Economic Development

Survey respondents were divided on what actions, if any, the Town should take to support local businesses. The most popular suggestion was that the Town could publicize information about Isle La Motte’s businesses.

² 19 businesses with employees, sole-proprietor businesses are not included in this data.

Applying for a Village Center Designation would allow for businesses in the village to access tax credits at no cost to the Town.

Given Isle La Motte's small size, it is likely that most residents will continue to commute to other communities for work. However, the Town encourages the development of small businesses, home-based businesses and agriculture that are in keeping with the rural nature of Isle La Motte.

Economy: Goals & Policies

Goals

1. Support existing and new small and home businesses that fit with the rural character of Isle La Motte.

Policies

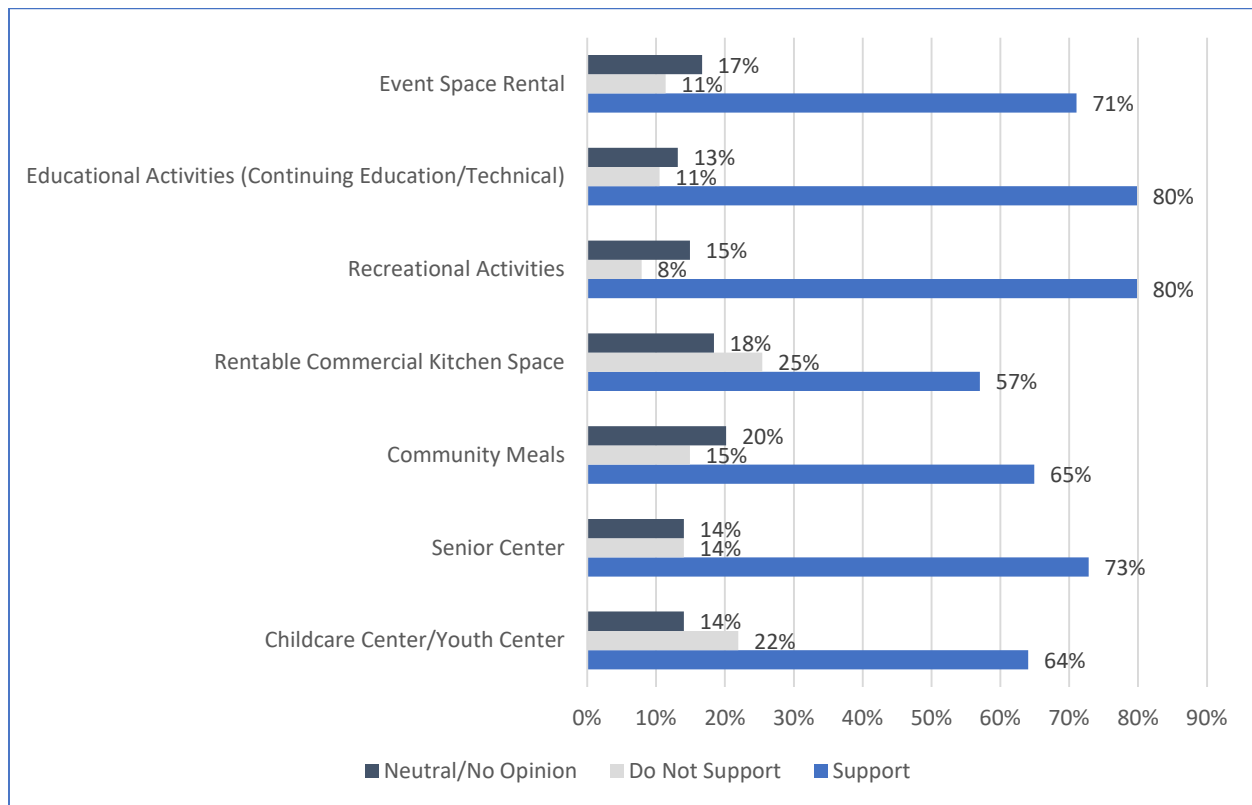
1. Encourage home businesses that do not interfere with the residential and agricultural character of the surrounding area.
2. Promote information on existing incentives to maintain farms and preserve agricultural land, such as the current use program and land trusts.
3. Seek Village Designation for the Village to provide tax credit opportunities to Village businesses.
4. Support efforts to expand high-speed internet access in Town.

Utilities, Facilities and Services

Municipal & Community Facilities and Services

Town Hall

In 2021, the Town moved its Town Offices to the former Isle La Motte Elementary School. After approval from Town voters, the Town purchased the facility from the Grand Isle Supervisory Union for \$1. Currently, a portion of the building is used for town offices and the meeting room is used for public meetings. Respondents to the Town Plan Survey supported a large variety of potential uses for the space, with each proposed use receiving more than 50% support. Based on the public outreach sessions the top proposed use was a multipurpose community center which could serve seniors, youth and residents of all ages. In addition, residents discussed uses of the 10 acres around the building, such as adding a battery storage system which could act as a backup generator. The Town plans to further examine options for the building, including completing a building assessment and examining the costs of potential uses.



Historic Town Hall

In 2021, the Town moved out of the historic Town Hall on Main Street due to lack of space and maintenance issues in the space. Since then, the building has been unused. Survey respondents were more mixed on the potential uses of the historic Town Hall with no responses receiving 50% support. Several comments noted concerns about the building's maintenance and renovation needs. At the public outreach sessions residents identified potential uses including a welcome center, Wi-Fi hotspot and public library. The Town plans to further examine options for the building, including completing a building assessment and examining the costs of potential future uses.

Library

Isle La Motte has a community volunteer-run library which is open for two hours each week on Wednesday and Friday. Residents at the public outreach session expressed interest in expanding library services to include internet access to bridge the digital divide, classes for seniors, summer education for children and access to interlibrary loan system.

Recreation

Recreation facilities provide an opportunity to bring together the Isle La Motte community. Increasing recreational opportunities was rated as the top priority by survey respondents over the next 5 years.

Isle La Motte Recreational Park

The Veterans Memorial Park is located on School St. across from the Isle La Motte Town Hall and has pickleball courts, a basketball court, ballfield, horseshoe pits, a sculpture and open fields. Attendees at the public outreach sessions identified adding a concert stage, outdoor walking path and outdoor fitness equipment as potential improvements to the park space. Many attendees noted that they would like recreational events to be held that bring the community together,

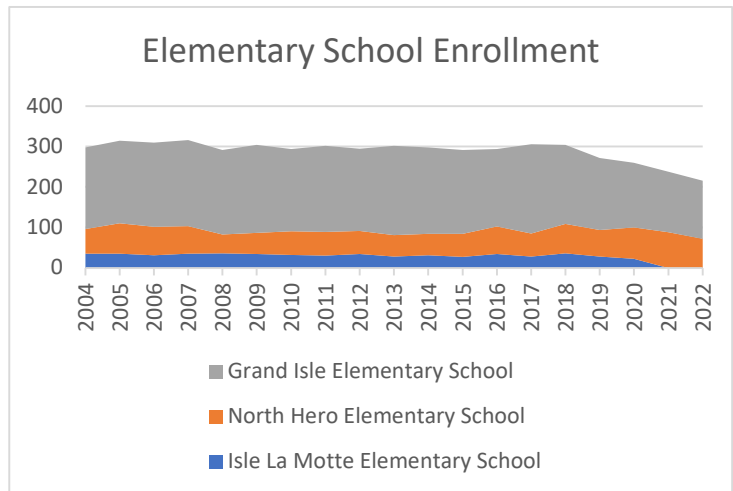
Other Recreational Opportunities

In addition to the Town Recreational Park, the Town owns several other properties not currently used for recreation where paths could be developed.

Education & Childcare

Education

Isle La Motte's elementary school closed in 2020, with educational activities ending in 2019. Isle La Motte children attend school in North Hero or Grand Isle through eighth grade. Combined enrollment in North Hero, Isle La Motte and Grand Isle has decreased in recent years. This is consistent with demographic trends that show there are fewer families in Isle La Motte (U.S. American Community Survey). Many families in Isle La Motte homeschool their children.



Source: Vermont Agency of Education

There are no high schools in Grand Isle County, students attend high school elsewhere in the state.

Childcare

Isle La Motte has 25 children under the age of 6 with working parents who are likely to need childcare (U.S. American Community Survey) There are no licensed childcare providers in Isle La Motte (Vermont Department of Children and Families). Residents may be accessing licensed childcare in other communities or using unlicensed options. There is a regional childcare shortage in Franklin and Grand Isle Counties. The

two counties need 1,503 additional childcare spots to meet current needs. The Town encourages the development of childcare services as needed to meet local needs.

Emergency Services

Isle La Motte's volunteer Fire Department has 10 members. Ambulance and Emergency Medical Services are provided by the Alburgh Volunteer Fire Department.

Isle La Motte contracts with the Grand Isle Sheriff for 35 hours a week of police coverage. Emergency police services are provided by the Grand Isle Sheriff and the Vermont State Police.

Water, Wastewater and Solid Waste Disposal

Isle La Motte does not have any public water or wastewater infrastructure. Residents are served by private individual water systems and septic systems.

The Town is a member of the Northwest Solid Waste District. The nearest transfer station is located in Alburgh. The Northwest Vermont Solid Waste Management District offers collection services for those wastes that otherwise would not have management options, such as special wastes, tires, appliances, and household hazardous wastes.

Communications

There are no current telecommunications towers located in Isle La Motte. Cellular service is generally good in Isle La Motte, although there are some problem areas on the east shore of the island.


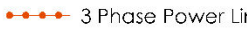
Broadband speed internet (25/3) is available in portions of Isle La Motte, however many areas only have access to slower speeds. Satellite internet options are also available. The State of Vermont considers an area underserved if it does not have high-speed (100/100) internet service. Isle La Motte is a member of Northwest Fiberworx, a municipal communications union district that has the goal of expanding fiber internet access to Isle La Motte. High speed broadband is important for businesses, residents working from home, and homeschooling families in Isle La Motte.

TOWN OF ISLE LA MOTTE

Facilities & Services

LEGEND

Facility & Service Features

-  Facility/Service
-  3 Phase Power Line

Transportation Features

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

Other Feature

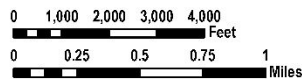
-  Town Boundary

For planning purposes only.

Data Sources:
 All map features derived from Vermont Open Geoportel Data (<https://geodata.vermont.gov>).
 North arrow on map refers to Grid North.

Located:
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Created:
 March - 2024



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Compatibility with Neighboring Towns and the Region

Isle La Motte is surrounded on all sides by water but is located adjacent to two Vermont municipalities: Alburgh and North Hero.

Alburgh

Isle La Motte is connected to Alburgh via a causeway on Route 129. In its Town Plan, Alburgh designates its land adjacent to Isle La Motte as the Shorelands District. The purpose of the Shorelands District is for “residential, recreation, conservation uses”. This is consistent with Isle La Motte’s Rural Agricultural District which is intended primarily for low-density residential uses.

North Hero

In its Town Plan, North Hero’s designates its land adjacent to Isle La Motte as the Shorelands District. North Hero states its district is appropriate for “low-density residential development and carefully sited commercial uses” with a focus on preservation of views. While Isle La Motte does not have specific provisions for preservation of views, the intended uses of low-density residential and limited commercial uses is consistent with Isle La Motte’s Rural Agricultural District.

Northwest Region

The Isle La Motte Town Plan is consistent with the 2023 Northwest Regional Plan. The majority of land in Isle La Motte is designated in the Agricultural Resource Planning Area or Rural Planning Area in the Regional Land Use Plan. This is consistent with the Town’s designation as Rural Agricultural. There are small areas of Isle La Motte located within the Conservation & Forest Resource Planning Area, the majority of which is in the Marsh. As described in the Natural Resource chapter, Isle La Motte supports efforts to preserve this area.

APPENDIX: Enhanced Energy Plan

The purpose of enhanced energy planning is to further local, regional, and state energy goals of ensuring affordable, reliable and renewable energy use that reduces greenhouse gas emissions. This section is intended to meet the municipal determination standards for enhanced energy planning enabled in 24 V.S.A. 4352.

A positive determination of compliance with the requirements of enhanced energy planning, as provided by the Regional Planning Commission, will enable Isle La Motte 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 Isle La Motte 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

Energy use can be broken up into three general sectors: thermal energy is used to heat homes & businesses, transportation energy used to fuel vehicles, and electrical energy, which is all energy that comes from the electrical grid. Several different units of measurement are used in this section. Please refer to Table E.13 for more information about unit conversions.

Thermal Energy

Table E.1 shows an estimate of current residential thermal energy demand in Isle La Motte (U.S. American Community Survey). The data shows that the most common heating sources are fuel oil, propane and wood.

| Fuel Source | Isle La Motte Households | Isle La Motte% of Households | Isle La Motte-Square Footage Heated | Municipal Thermal Energy Use in British Thermal Units (BTUs) BTU (in Billions) |
|--------------------|---------------------------------|-------------------------------------|--------------------------------------------|---------------------------------------------------------------------------------------|
| Natural Gas | 0 | 0.0% | 0 | 0.0 |
| Propane | 52 | 23.5% | 94,080 | 5.6 |
| Electricity | 17 | 7.7% | 32,368 | 1.9 |
| Fuel Oil | 112 | 50.7% | 209,024 | 12.5 |
| Coal | 0 | 0.0% | 0 | 0.0 |
| Wood | 28 | 12.7% | 53,312 | 3.2 |
| Solar | 0 | 0.0% | 0 | 0.0 |

| | | | | |
|--------------|-----|--------|---------|------|
| Other | 12 | 5.4% | 20,736 | 1.2 |
| No Fuel | 0 | 0.0% | 0 | 0.0 |
| Total | 221 | 100.0% | 409,520 | 24.6 |

Source: U.S. American Community Survey, NRPC estimates

There is a lack of available information on commercial and thermal energy use, which makes estimates more difficult to calculate. Table E.2 provides an estimate of total commercial energy use (thermal and electricity). This plan assumes that the majority of this energy use, 28 billion BTUs per year, is used as thermal energy for commercial uses.

| Table E.2 - Current Isle La Motte Commercial Energy Use | | | |
|----------------------------------------------------------------|-----------------------------------------------------------|------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|
| | Commercial Establishments in Isle La Motte(VT DOL) | Estimated Thermal Energy per Commercial Establishment/year (in Billions) (VT DPS) | Estimated Thermal Energy by Commercial Establishments in Isle La Motte/year (in Billions) |
| Municipal Commercial Energy Use | 39 | 0.725 | 28.3 |

| Table E.4 – Current Isle La Motte Transportation Energy Use | |
|--------------------------------------------------------------------|-----------------------|
| Transportation Data | Municipal Data |
| Total # of Passenger Vehicles (US ACS) | 435 |
| Average Miles per Vehicle (VTrans) | 11,772 |
| Total Miles Traveled | 5,120,820 |
| Realized MPG (2021 - VTrans Energy Profile) | 23.4 |
| Total Gallons Use per Year | 218,838 |
| Transportation BTUs (Billion) | 26 |
| Average Cost per Gallon of Gasoline in 2024 (AAA) | 3.47 |
| Gasoline Cost per Year | \$759,369 |

Table E.4 contains an estimate of transportation energy use in Isle La Motte. Isle La Motte residents drive personal vehicles approximately 5 million miles per year and spend about \$750,000 on transportation fuel expenses per year. This calculation does not include expenses for commercially owned and operated vehicles.

As of 2023, there were less than 20 electric and hybrid vehicles registered to Isle La Motte residents (Drive Electric Vermont).

Electricity Use

According to Efficiency Vermont, the average residential usage per household has somewhat increased since 2018. During the same period, overall commercial and industrial electricity usage also increased significantly. Isle La Motte is served by one electric utility: Vermont Electric Cooperative.

| Table E.3 - Current Isle La Motte Electricity Use | | |
|----------------------------------------------------------|-----------------------------------------------------------------------------------|--------------------------------------------------|
| Use Sector | Current Electricity Use in Isle La Motte (2021) (Efficiency Vermont) (kWh) | Current Electricity Use (in Billion BTUs) |
| Residential | 2,972,714 | 10.1 |
| Commercial and Industrial | 507,192 | 1.7 |
| Total | 3,479,906 | 11.8 |

Electricity Generation

There is currently .24 MW of electricity generation capacity from renewable generation facilities located in Isle La Motte. This capacity results in approximately 315 MWh of electricity generation per year. All of this generation is from solar facilities located in Isle La Motte. The amount of electricity generation in Isle La Motte is roughly equal to the annual electricity use of about 47 households in Vermont (U.S. Energy Information Administration).

| Generation Type | MW | MWh |
|----------------------------------|------|-----|
| Solar | 0.24 | 315 |
| Wind | 0 | 0 |
| Hydro | 0 | 0 |
| Biomass | 0 | 0 |
| Other | 0 | 0 |
| Total Existing Generation | 0.24 | 315 |

Map E.4 shows the location of all electricity generators in Isle La Motte with a capacity greater than 15 kW. A full list of electricity generators can be found at the end of this section (Table E.12).

Isle La Motte has some access to three-phase distribution lines, but no access to transmission lines. These types of lines are used to transmit large quantities of electricity and are needed to serve large industrial users and commercial centers. Isle La Motte’s limited access to transmission lines may make development of renewable energy in Isle La Motte more difficult.

Map E.2 shows the electricity transmission and three-phase distribution infrastructure in Isle La Motte.

Targets for Use and Generation

The second required element of an enhanced energy plan is creation of targets for future energy use. The Northwest Regional Planning Commission worked with the Vermont Department of Public Service to develop regional targets for future energy use and renewable electricity generation to meet state goals. These targets were broken up by municipality to create local targets. For more information about the regional targets, please see the Northwest Regional Energy Plan (www.nrpcvt.com). Tables E.6, E.7 and E.8 show the targets for future energy use for Isle La Motte by sector.

Thermal Targets

| Thermal Targets | 2025 | 2035 | 2050 |
|-------------------------------------------------------------------------|------|-------|-------|
| Percent of Total Heating Energy from Renewable Sources - Heating (BTUs) | 45% | 58.2% | 86.1% |
| New Efficient Wood Heat Systems (in units) | -1 | -2 | 1 |
| New Heat Pumps (in units) | 26 | 60 | 112 |
| Percentage of municipal households to be weatherized | 5% | 16% | 78% |
| Percentage of commercial establishments to be weatherized | 25% | 25% | 73% |

The thermal target for Isle La Motte in 2050 is to have 86% of structures be heated by renewable sources. Much of this transition is likely to come in the form of electric heat pumps as the primary heating source for single family homes as the technology becomes more readily available and affordable. The target also relies

on wood heating being a continued source of residential heating. There are also high targets for the weatherization of residential households and commercial structures

Transportation Targets

| Table E.7 Transportation Energy Targets | | | |
|-------------------------------------------------------------------------------------|-------------|-------------|-------------|
| Transportation Targets | 2025 | 2035 | 2050 |
| Percent of Total Transportation Energy from Renewable Sources Transportation (BTUs) | 10.7% | 33.1% | 90.9% |
| Electric Vehicles | 37 | 275 | 653 |
| Biodiesel Vehicles | 77 | 153 | 296 |

The transportation energy targets for Isle La Motte are similarly ambitious. By 2050, 90.9% of transportation energy will need to come from renewable sources. This will primarily be done through conversion to electric vehicles from fossil fuel vehicles for light-duty, passenger vehicles. However, it will also mean conversion of heavy-duty vehicles from diesel to biodiesel sources. The biodiesel technology and infrastructure will certainly need to advance and evolve in order to meet this target.

Electrical Targets

| Table E.8 Electrical Targets | | | |
|--------------------------------------------------------------|-------------|-------------|-------------|
| Electrical Targets | 2025 | 2035 | 2050 |
| Electricity Use Growth (Efficiency and Conservation in BTUs) | 25.2% | 43.8% | 100.7% |

Targets for electricity use are more complex to interpret. Electricity use is targeted to double by 2050 (Table E.8). This 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.

Renewable Generation Targets

| Table E.9 Electricity Generation Targets | | | |
|-------------------------------------------------|-------------|-------------|-------------|
| Renewable Generation Targets | 2025 | 2035 | 2050 |
| Total Renewable Generation Target (in MWh) | 1,968.99 | 3,937.98 | 5,966.64 |

Table 5.9 shows the electricity generation targets for Isle La Motte 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. Meeting the generation targets will take considerable effort over the next 30 to 35 years.

| E.10 Renewable Generation Potential | | |
|---------------------------------------------|------------|------------------|
| Resource | MW | MWH |
| Rooftop Solar | 0 | 341 |
| Ground-mounted Solar | 204 | 250,504 |
| Wind | 272 | 833,883 |
| Hydro | 0 | 0 |
| Biomass and Methane | 0 | 0 |
| Other | 0 | 0 |
| Total Renewable Generation Potential | 477 | 1,084,728 |

Isle La Motte has sufficient land to meet the above generation targets based on mapping completed by NRPC. Based on mapping and calculations completed by NRPC, Isle La Motte has access to the generation capacity outlined in Table 5.10. 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.

Isle La Motte 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. Isle La Motte encourages the use of these sources for electricity and thermal generation, especially on farms.

Mapping Energy Resources and Constraints

The third required element of an enhanced energy plan are maps that provide guidance on appropriate the location of new renewable generation facilities. All maps can be found at the end of this section.

The purpose of the maps is to show those areas that may be good locations, or may be inappropriate locations, for future renewable electricity generation facilities. However, these maps are intended only as a planning tool. 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.

Solar and Wind

The solar and wind maps show both “base” and “prime” areas. Base areas are areas with electricity generation potential that may contain possible constraints. Prime areas are areas that have electricity generation potential without 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 some available land for solar in Isle La Motte, including areas located within ½ mile of transmission and three-phase distribution lines. The following preferred locations for solar generation facilities by the Town of Isle La Motte: rooftops, parking lots, and landfills. Brownfield sites located outside of the village of Isle La Motte are also considered preferred locations.

Isle La Motte 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 Isle La Motte by restricting the geographic size of solar facilities. In addition, Isle La Motte prefers that 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 Isle La Motte’s rural character.

Isle La Motte has relatively good access to base wind resources, but few prime wind areas. These areas are generally concentrated near the lakeshore.

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 forests 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

Mapping Methodology

The maps, developed by Northwest Regional Planning Commission, show where there is solar, wind, hydro, and biomass “potential” in Isle La Motte based on information provided by the Vermont Sustainable Jobs Fund. After identifying the areas with best potential, “known” and “possible” constraints were 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 E.11.

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. Isle La Motte has no existing dam sites and the development of new dam sites is extremely unlikely due to Isle La Motte's island location and the extensive regulatory process involved in developing new dams.

Equity

Reaching Isle La Motte'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 the Town. 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.

Conclusion

Achieving the energy goals in state statute will be difficult. Isle La Motte is committed to playing its part in working towards accomplishing these goals and in creating a more sustainable, affordable, and secure energy future.

GOALS:

1. Plan for increased electric demand with the support of local electric utilities and Efficiency Vermont.
2. Reduce annual fuel needs and fuel costs for heating structures, to foster the transition from non-renewable fuel sources to renewable fuel sources, and to maximize the weatherization of residential households and commercial establishments.
3. Hold vehicle miles traveled per capita to 2011 levels through reducing the amount of single occupancy vehicle (SOV) commute trips and developing public transit ridership.
4. Focus growth within and adjacent to the village.

POLICIES

1. Isle La Motte supports energy conservation efforts and the efficient use of energy across all sectors.
2. Isle La Motte 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. Isle La Motte supports patterns and densities of concentrated development that result in the conservation of energy.
4. Isle La Motte 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. Isle La Motte 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.

ACTIONS:

1. Coordinate annually with Efficiency Vermont and state low-income weatherization programs to encourage residents to participate in weatherization and electrification programs available to Isle La Motte residents.
2. Conduct an energy audit of municipal and other public buildings to identify weatherization retrofits and incorporate the recommendations into the municipal capital budget.
3. Promote and provide information about the GoVermont website (<https://www.connectingcommuters.org/>) which provides information citizens about ride share, vanpool, and park-and-ride options.
4. Encourage use of heat pumps and examine potential use of heat pumps in municipal buildings.
5. Plan for and install electric vehicle charging infrastructure in Isle La Motte.
6. 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).
7. Investigate the installation of a municipal solar and/or wind net-metering facilities to off-set municipal electric use.
8. Investigate installation of a community-based renewable energy project.
9. Provide firefighters with training in fighting fires on structures that have solar installed.

| Table E.11 – Mapping Constraints | | |
|-------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| Solar, Wind and Biomass Maps - Known Constraints | | |
| Constraint | Description | Source |
| Confirmed and unconfirmed vernal pools | There is a 600-foot buffer around confirmed or unconfirmed 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 |
| River corridors | Only mapped River Corridors were mapped. Does not include 50 foot buffer for streams with a drainage area 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 goals and policies of the Northwest Regional Plan. | NRPC |
| FEMA Flood Insurance Rate Map (FIRM) special flood hazard areas | Special flood hazard areas as 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 | Buffered Source Protection Areas (SPAs) are designated by the Vermont Department of Environmental Conservation (DEC). 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 |

| | | |
|-------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| Vermont Conservation Design Highest Priority Forest Blocks | 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 goals and policies of the Northwest Regional Plan. (Source: ANR) | ANR |
| Public water sources | 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. | ANR |
| Municipal Conservation Land Use Areas | Conservation Land Use Districts, as designated in municipal plans, that 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 are no areas identified in the Isle La Motte Town Plan were included in this category. | NRPC |
| Solar, Wind and Biomass Maps - Possible Constraints | | |
| Constraint | Description | Source |
| 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 goals and policies of the Northwest Regional Plan. | ANR |
| Municipal Conservation Land Use Areas | Conservation Land Use Districts, as designated in municipal plans, that 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 Isle La Motte Town Plan were included in this category. | NRPC |
| Hydro Map - Known Constraints | | |
| Constraint | Description | Source |
| None | | |
| Hydro Map - Possible Constraints | | |
| Constraint | Description | Source |
| "303d" list of stressed waters | | ANR |
| Impaired waters | | 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 |

The date in Table E.12 displays facilities that have a Certificate of Public Good from the Vermont Utilities Commission to generate electricity. The Town of Isle La Motte recognizes that some of the data in the table may be out of date or incorrect. The Town of Isle La Motte also recognizes that some identified facilities may no longer generate electricity.

| 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 |

Existing Generation Facilities

Isle La Motte, Vermont Act 174 The Energy Development Improvement Act

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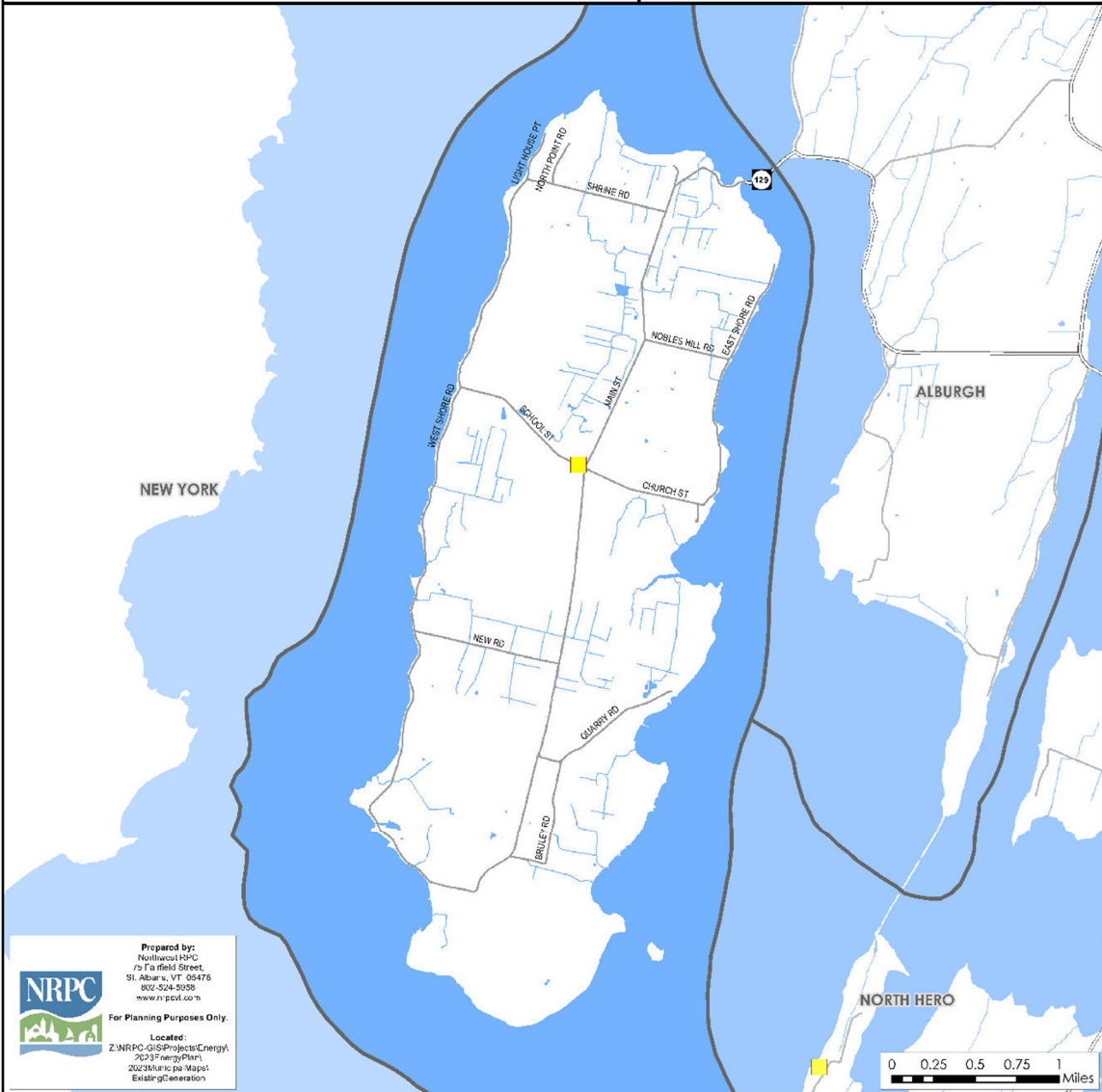
Legend

-  Biomass Facility
-  Hydro Facility
-  Solar Facility
-  Wind Facility

Note: Only generators 15kW are shown on the map. A full list of all generators is available.

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.

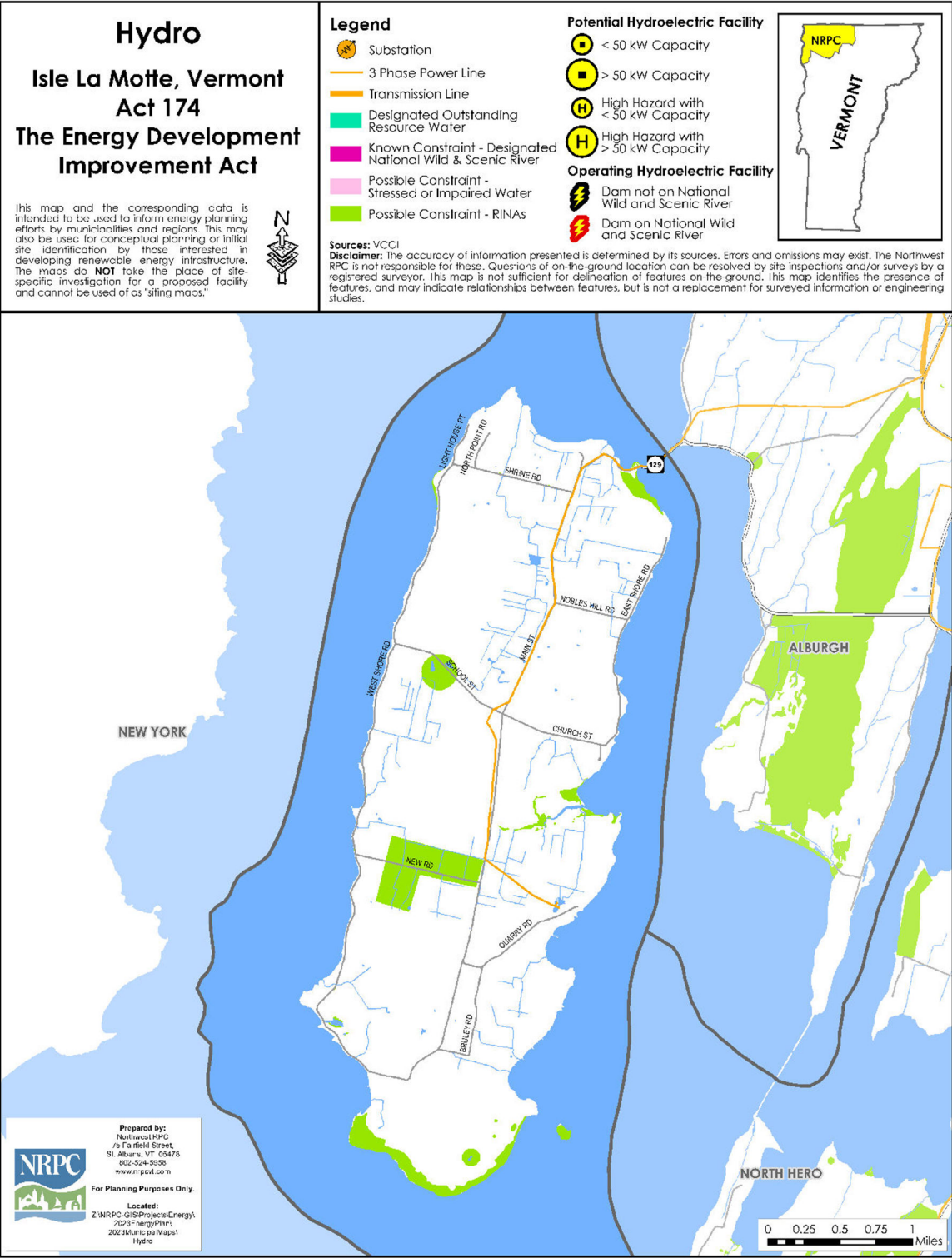


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Solar

Isle La Motte, Vermont

Act 174

The Energy Development Improvement Act

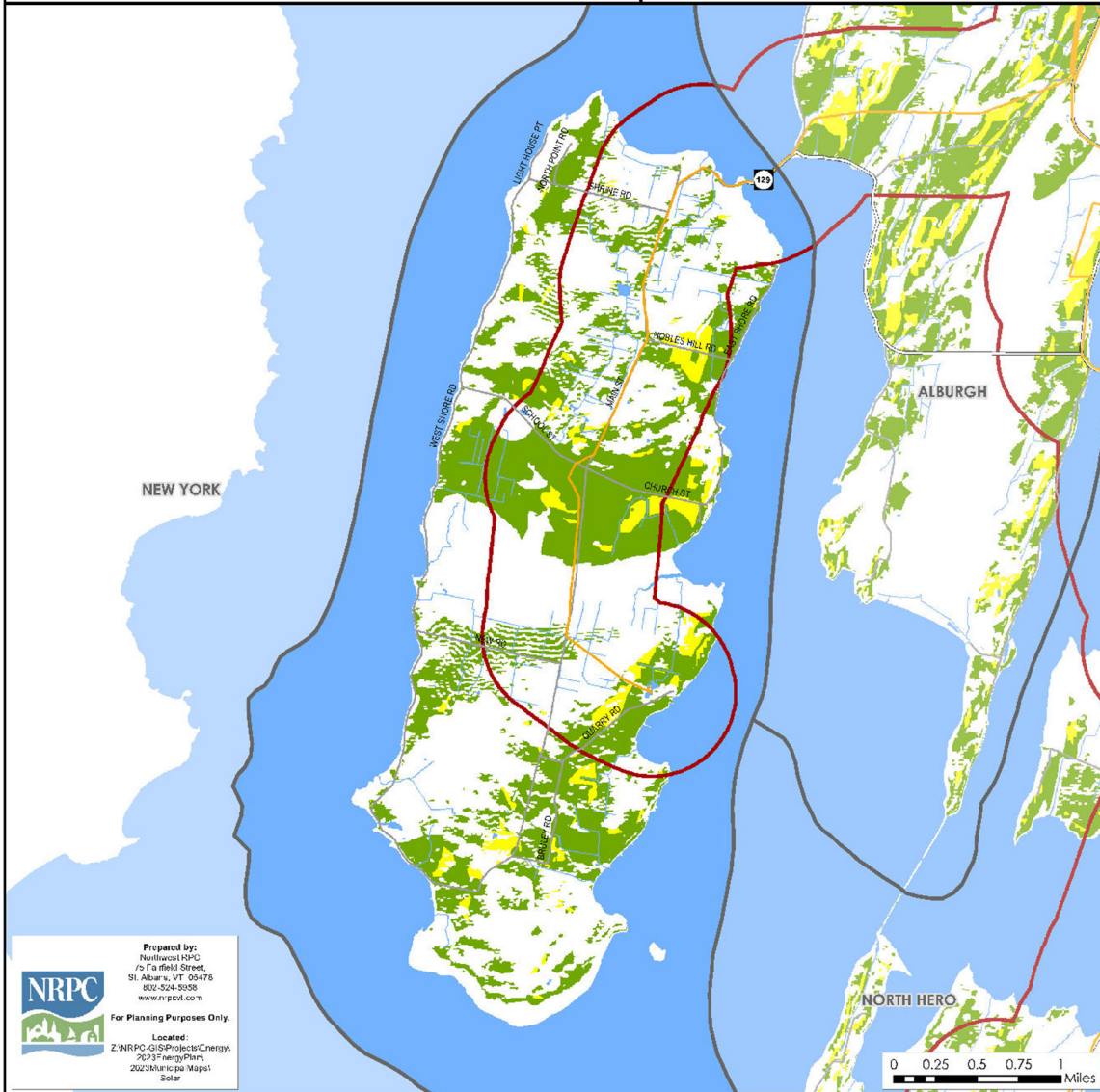
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Legend

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

Sources: VCGI
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Transmission & 3 Phase Power Infrastructure

Isle La Motte, Vermont Act 174 The Energy Development Improvement Act

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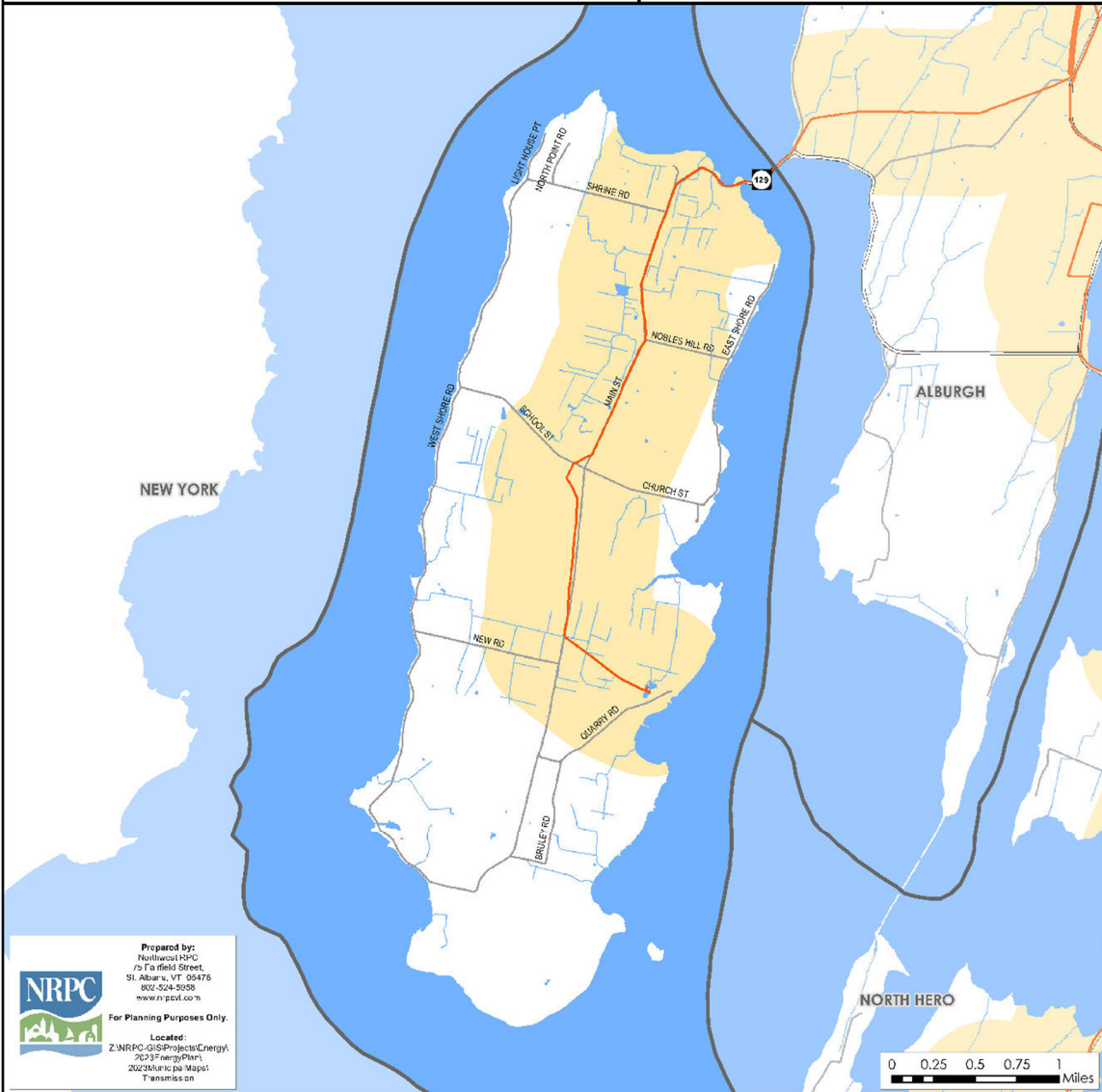


Legend

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

Sources: VCGI

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Utility Service Areas

Isle La Motte, Vermont Act 174 The Energy Development Improvement Act

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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

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Wind

Isle La Motte, Vermont Act 174 The Energy Development Improvement Act

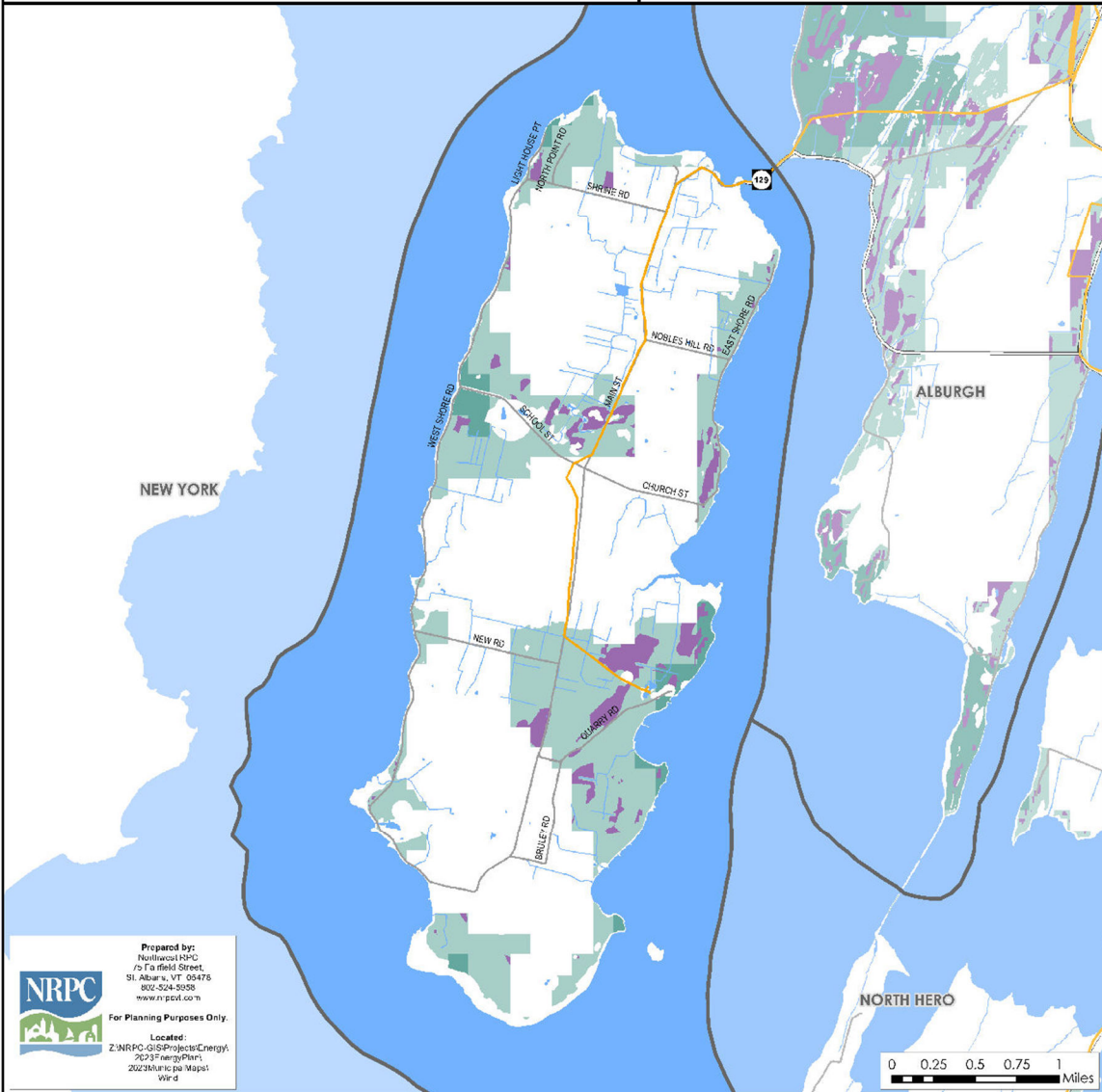
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Legend

- Substation
- 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
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Woody Biomass

Isle La Motte, Vermont Act 174 The Energy Development Improvement Act

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Legend

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

Sources: VCGI

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