Energy Targets & Siting Information

The Town of Warren has incorporated information related to the Standards of Act 174 regarding enhanced energy planning throughout their Town Plan. To further support the standards of Act 174, the following information is included for reference. This information outlines the Analysis and Targets; and Mapping information that will supplement the Implementation Pathways for energy planning that are noted in the plan. This information utilizes the best available data and supports the state's energy planning goal of having 90% of the energy use being generated from renewable sources by the year 2050; referred to as 90 x 50.

Analysis and targets related to existing and future energy will help provide a baseline whereby the Town of Warren can begin measure progress towards meeting their share of the state's energy planning goals. There are three sectors of energy that are analyzed with associated targets related to conservation, conversion, and efficiency. The three sectors of energy include:

- Transportation
- Thermal (heating)
- Electricity use

Information regarding these sectors for both residential and non-residential uses is included.

These three sectors provide the basis for changes needed to meet the 90 x 50 threshold. The following tables provide information regarding the three sectors of energy and options for the Town of Warren to focus their efforts regarding conservation, conversion, and efficiency. It should be noted that these are targets and only identify a small variety of options to reduce dependency on fossil fuels. Any and all options should be considered viable if they will reduce fossil fuel use and support energy independence.

Tables 1 through 4 identify the current energy use for the Town of Warren across the three sectors noted above.

Table 1 – Current Transportation Energy Use

Transportation Category	Municipal Data
Total Number of Vehicles	1,387
Average Miles per Vehicle	12,500
Total Miles Traveled	16,050,000
Average Gallons Used per Vehicle per Year	576
Total Gallons Use per Year	862,903
Transportation BTUs *(in Billions)*	104
Average Cost per Gallon of Gasoline	2.31
Gasoline Cost per Year	$1,993,306.00

Source: U.S. Census Bureau – American Fact Finder – 2015
Vermont Agency of Transportation

Table 2 – Current Residential Heating Energy Use by Fuel Type

Fuel Source	Municipal Households	Percent of Households	Heated Square Footage	Total Annual BTUs *(in Billions)*
Natural Gas or Propane	409	55.0%	668,625	40.12
Electricity	69	9.3%	100,140	6.01
Fuel Oil	98	13.2%	178,920	10.74
Coal	0	0.0%	0	0.00
Wood	155	20.9%	291,825	17.51
Other *(Includes Solar)*	0	0.0%	13,800	0.83
No Fuel	12	1.6%	0	0.00
Total	**743**	**100%**	**1,253,310**	**75.20**

Source: U.S. Census Bureau – American Fact Finder – 2015

Table 3 – Current Commercial Heating Energy Use by Fuel Type

	Total Commercial Establishments	Estimated Thermal Energy Use per Commercial Establishment *(in Millions of BTUs)*	Total Estimated Thermal Energy Use *(in Millions of BTUs)*
Commercial Energy Use	98	611	59,878

Source: Vermont Department of Public Service & Department of Labor

Table 4 – Current Electricity Use by Sector

Use Sector	Current Electricity Use *(in megawatts)*
Residential	15,078
Commercial and Industrial	9,515
Total	24,593

Source: Efficiency Vermont

In addition to the current energy use in the Town of Warren, information is provided related to targets for increases in energy efficiency across the three identified sectors, as well as targets for conversion related to thermal and transportation needs. Specifically, Table 5 identifies the percent of residential and commercial structures that would need to be weatherized in each of the three target years, while Table 6 indicates the number of new heat pumps and wood heat systems that would be needed for residential and commercial structures in each of the target years. It is important to note that these are targets and not specific requirements. The Town of Warren should work to identify policies that can help the municipality achieve these targets as effectively as possible.

Table 5 –Thermal Efficiency Targets by Target Year

	2025	2035	2050
Percent of Residential Structures to be Weatherized by Target Year	20%	42%	92%
Percent of Commercial Structures to be Weatherized by Target Year	22%	33%	61%

Source: Vermont Department of Public Service
Vermont Energy Investment Corporation – Long Range Energy Alternatives Planning
U.S. Census Bureau – American Community Survey – 2015
Vermont Department of Labor

Table 6 – Residential & Commercial Fuel Switching Targets for in Unit Systems by Target Year

	2025	2035	2050
New Efficient Wood Heat Systems	4	5	31
New Heat Pumps	75	195	369

Source: Vermont Energy Investment Corporation – Long Range Energy Alternatives Planning
U.S. Census Bureau – American Community Survey – 2015

Another factor to consider regarding the thermal and transportation sectors is the amount of renewable energy that is used in each sector. Table 7 identifies the percentage of renewable energy that would need to be used in both home heating and transportation over the three target years for the Town of Warren to meet its share of the state's energy goals. Again, these are targets that should be used to measure progress and not intended to be requirements.

Table 7 – Use of Renewables for Transportation & Home Heating by Target Year

	2025	2035	2050
Transportation Renewable Use	9.6%	31.3%	90.2%
Home Heating Renewable Use	53.6%	67.1%	92.1%

Source: Vermont Energy Investment Corporation – Long Range Energy Alternatives Planning

Like Table 6, Table 8 identifies specific numbers of vehicles to be converted from fossil based fuels to renewable based fuels. Table 8 assumes that vehicle use will continue to remain on the same trajectory it is currently following. The targets in Table 8 do not consider change in land development patterns or lifestyle choices that may increase alternative forms of transportation such as public transit, bicycling, or walking as a primary means of completing daily activities. Policies related to land use and transportation may impact these numbers in the future. Again, like other information, these are intended to be targets assuming a consistent need for individual vehicles.

Table 8 – Transportation Fuel Switching from Fossil Based Fuel to Electric & Biodiesel Fuels by Target Year

	2025	2035	2050
Electric Vehicles	110	762	1,521
Biodiesel Vehicles	192	356	578

Source: Vermont Energy Investment Corporation – Long Range Energy Alternatives Planning
U.S. Census Bureau – American Community Survey – 2015

Another factor to consider with energy relates to efficiency. In general, energy efficiency will continue to increase over time. As technological advances are made, cars, appliances, and other daily use items will become more efficient regardless of consumer habits. In order to more effectively ensure Warren is working towards electric efficiency, percentages have been established for efficiency and conservation over each of the three target years. This information is reflected in Table 9.

Table 9 – Annual Electricity Efficiency Targets – All Sectors by Target Year

	2025	2035	2050
Increased Efficiency & Conservation	1.5%	7.3%	15.2%

Source: Vermont Energy Investment Corporation – Long Range Energy Alternatives Planning

The final component of energy planning relates to existing and potential generation of renewable energy. Based on information from the Department of Public Service an analysis was done to determine how much renewable energy could be generated by the Town of Warren. To support this effort, the Central Vermont Regional Planning Commission developed maps that identify resource areas for wind, solar, hydroelectric, and woody biomass. These resource areas are further refined by specific constraints that may limit the development of renewable generation. Constraints are separated into two general categories; known and possible. These areas are defined as:

Known constraints are those areas where development of a renewable resources are very limited and therefore not likely to occur. Known constraints that have been identified include:

- Vernal Pools (confirmed or unconfirmed)
- River Corridors as identified by the Vermont Department of Environmental Conservation
- Federal Emergency Management Agency Identified Floodways
- State-significant Natural Communities and Rare, Threatened, and Endangered Species
- National Wilderness Areas
- Class 1 and Class 2 Wetlands (as noted in the Vermont State Wetlands Inventory or Advisory Layers
- Regionally or Locally Identified Critical Resources

Possible constraints identify areas where additional analysis will need to occur in order to determine if development of renewable energy resources is appropriate. In some cases, conditions may be prohibitive, but in others the conditions may be suitable for renewable energy development. The possible constraints include:

- Agricultural Soils
- Federal Emergency Management Agency Special Flood Hazard Areas
- Protected Lands (State fee lands and private conservation lands)
- Act 250 Agricultural Soil Mitigation Areas
- Deer Wintering Areas
- Vermont Agency of Natural Resources Conservation Design Highest Priority Forest Blocks
- Hydric Soils
- Regionally or Locally Identified Resources

The Central Vermont Regional Planning Commission also identified regional constraints to be considered. These include:

- Elevations above 2,500 feet
- Lakeshore Protection Areas of 250 feet
- Slopes Greater Than 25%
- Municipally Owned Lands

The CVRPC identified these areas as possible constraints since conditions related to these areas could vary throughout the Region and it was decided that each municipality should be able to evaluate these areas individually.

One additional constraint that was added by the Region was a limit on the overall height of wind generation facilities. Specifically, the CVRPC noted that the maximum height for wind generation would be 125 feet as measured to the hub (excluding blades). This would allow residential and commercial scale wind to be established but would limit the industrial scale development that could have greater impacts on the Region overall.

Additional information on the known, possible, and regional constraints, including sources of data, can be found in the Central Vermont Regional Energy Plan.

In addition to the known and possible constraints identified by the state and the CVRPC, Warren has identified the following local constraints to be considered such as:

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

These locations have been included on the maps and available resource areas have been calculated to ensure Calais is able to meet its share of the regional energy targets by 2050 as indicated in Table 10.

Similar to constraints, the state has noted preferred locations for energy. This includes:

- Parking lots
- Gravel pits
- Brownfield sites as defined in 10 V.S.A. §6642
- Sanitary Landfills as defined in 10 V.S.A. §6602
- Rooftop installations

Warren has identified locally preferred sites to accompany the statewide locations. These include:

XXXXXXXXXXXXXXXXXXXXXXXXXXXXX

Specific energy resource maps are included at the end of this section and include information on constraints, resource areas, and preferred siting.

Based on the mapping information, Table 10 identifies the renewable energy generation needed in each of the three target years for the Town of Warren to meet its share of the Region's renewable energy generation goals. It's important to note that Warren is not necessarily responsible for developing the renewable generation facilities, rather the Town's role is to ensure that policies do not have the effect of limiting renewable energy development to levels that would fall below the generation targets outlined in Table 10.

Table 10 – Renewable Energy Generation by Target Year

	2025	2035	2050
Total Renewable Energy Use by Target Year *(in megawatt hours)*	2,743	4,389	10,973

Source: Central Vermont Regional Planning Commission

To provide perspective on renewable energy generation, Table 11 identifies the amount of potential renewable energy that could be developed in Warren based on the amount of resource area that exists with the known constraints removed, and possible constraints noted. This does not mean that all properties with resources are able to be developed as some possible constraints could limit the development. Table 11 is intended to provide a comparison of how much renewable energy could be developed in Warren. Based on the information in Table 11, it appears that the Town of Warren has adequate land area and resource capacity to meet their share of the Region's renewable energy goals by 2050.

In particular, biomass and methane generation is listed as "unknown" since these two categories do not depend on the availability of a resource such as wind, solar radiation, or water for hydroelectric generation. Biomass generation, such as a wood pellet facility, can be located almost anywhere

therefore the generation capacity is limited by other factors such as land use regulations or costs to develop a facility.

Table 11 – Potential Renewable Generation by Source

Source of Generation	Megawatts	Megawatt Hours
Rooftop Solar	1.23	1,512
Ground-mounted Solar	345.29	423,458
Wind	2,581.75	7,915,646
Hydroelectric	0.00	0
Biomass and Methane	Unknown	Unknown
Other	Unknown	Unknown
Total Potential Generation	**2,928.27**	**8,340,616**

Source: Vermont Department of Public Service
Central Vermont Regional Planning Commission

Finally, the targets listed in Table 10 would account for new renewable generation. Anything that is existing would already be factored into the overall totals for generation to meet the 90 by 50 goal. Table 12 identifies the general totals of existing renewable energy generation in the Town of Warren, while Table 13 identifies the specific Certificates of Pubic Good that have been issued by the Public Utility Commission for the Town of Warren including the type of installation and the amount of energy being generated.

Table 12 – Existing Renewable Generation by Source

Source of Generation	Megawatts	Megawatt Hours
Solar	0.50	611.97
Wind	0.00	6.13
Hydroelectric	0.00	0.00
Biomass	0.00	0.00
Other	0.00	0.00
Total Existing Generation	**0.50**	**618.11**

Source: Vermont Department of Public Service
Central Vermont Regional Planning Commission

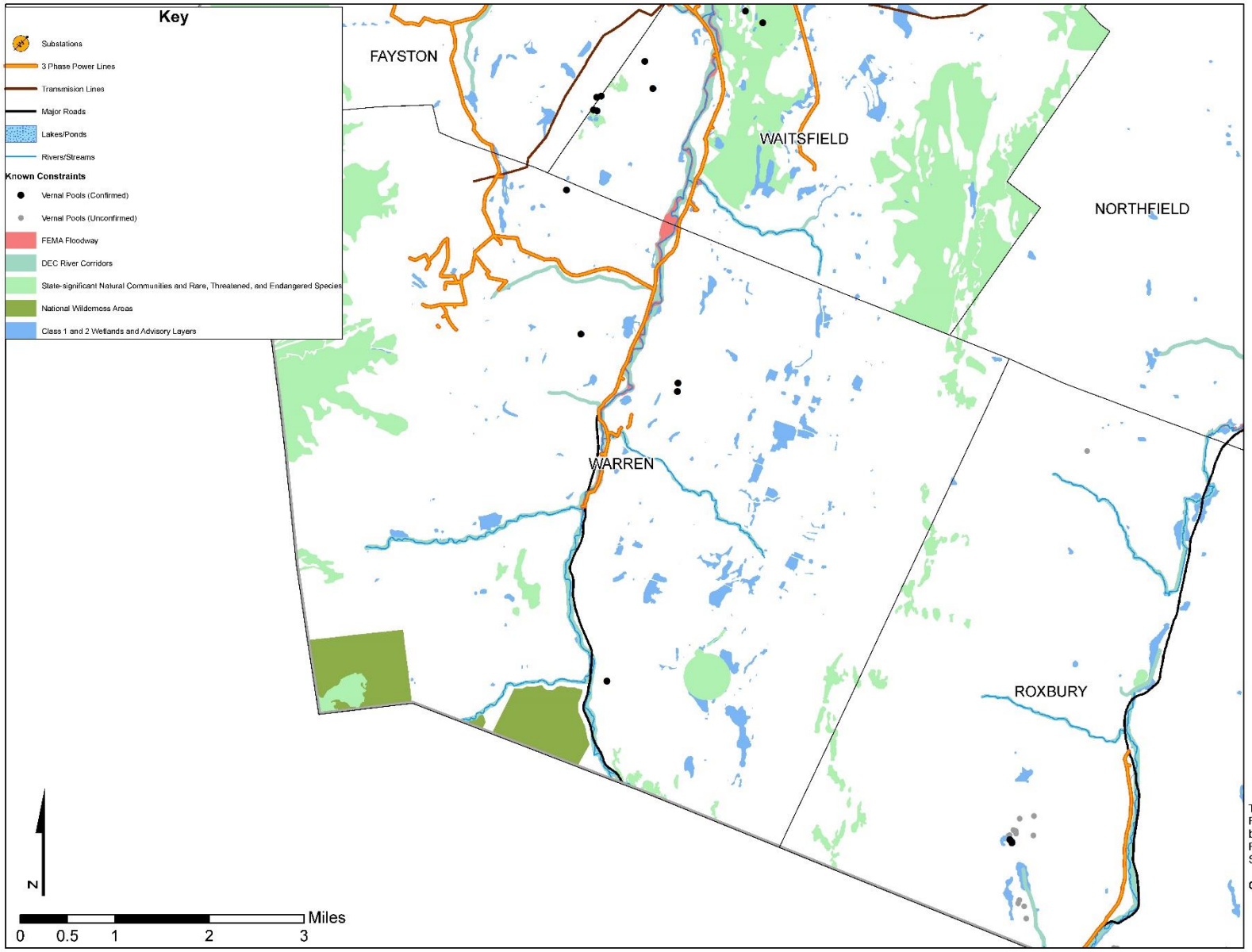
Table 13 – Existing Renewable Energy Generation Based on Certificates of Public Good

Category	Sub Category	Name	Electricity Type	Utility	Capacity kW
Solar	Roof-Mounted PV	Annette and Joseph Marcinko	Net Metered	Green Mountain Power	5.6
Solar	Ground-mounted PV	Brian Lee	Group Net Metered	Green Mountain Power	4.8
Solar	Roof-Mounted PV	Carolyn Adams	Net Metered	Green Mountain Power	3.1
Solar	Roof-Mounted PV	Charles Taplin	Net Metered	Green Mountain Power	7.5
Solar	Roof-Mounted PV	Chris Peltier	Net Metered	Green Mountain Power	8.6
Solar	Roof-Mounted PV	D. Michael Fennelly	Net Metered	Green Mountain Power	9.5
Solar	Roof-Mounted PV	Dan Ebstein & Tara Hamilton	Net Metered	Green Mountain Power	2.9
Solar	Roof-Mounted PV	Don Mayer	Net Metered	Green Mountain Power	5.6
Solar	Roof-Mounted PV	Dorothy Kyle & Eric Brattstrom	Net Metered	Green Mountain Power	11.4
Solar	Ground-mounted PV	Edgcomb Design Group, Inc.	Net Metered	Green Mountain Power	5.8
Solar	Ground-mounted PV: Tracker	Erin Chase & Alex Hilton	Net Metered	Green Mountain Power	4
Solar	Roof-Mounted PV	George Hall	Net Metered	Green Mountain Power	3.1
Solar	Roof-Mounted PV	James & Ellen Sanford	Net Metered	Green Mountain Power	1.4

Category	Sub Category	Name	Electricity Type	Utility	Capacity kW
Solar	Roof-Mounted PV	Janet & David Ellison	Net Metered	Green Mountain Power	4.3
Solar	Roof-Mounted PV	Jason Fowler	Net Metered	Green Mountain Power	7.5
Solar	Roof-Mounted PV	Jesse Stowell	Net Metered	Green Mountain Power	3.7
Solar	Roof-Mounted PV	Joe Kasper	Net Metered	Green Mountain Power	3.3
Solar	Roof-Mounted PV	John Barkhausen	Net Metered	Green Mountain Power	4.1
Solar	Roof-Mounted PV	John McCallum	Net Metered	Green Mountain Power	6.4
Solar	Roof-Mounted PV	Kenneth Friedman	Net Metered	Green Mountain Power	6.5
Solar	Roof-Mounted PV	Leonard Robinson	Net Metered	Green Mountain Power	9.3
Solar	Roof-Mounted PV	Lisa Onorato	Net Metered	Green Mountain Power	5
Solar	Roof-Mounted PV	Lyndley & William Mittler	Net Metered	Green Mountain Power	4.1
Solar	Roof-Mounted PV	Lynn & William Osborn	Net Metered	Green Mountain Power	3.8
Solar	Roof-Mounted PV	Mollie and Brian German	Net Metered	Green Mountain Power	2.2
Solar	Ground-mounted PV	Paul Eardensohn	Net Metered	Green Mountain Power	12.5
Solar	Roof-Mounted PV	Peter Brooks and Marie Schmukal	Net Metered	Green Mountain Power	9.3
Solar	Ground-mounted PV: Tracker	Peter Schneider	Net Metered	Green Mountain Power	4
Solar	Roof-Mounted PV	Richard Beaudoin	Net Metered	Green Mountain Power	8.7
Solar	Roof-Mounted PV	Roberta Bennett	Net Metered	Green Mountain Power	6.5
Solar	Roof-Mounted PV	Sarina Gulisano	Net Metered	Green Mountain Power	4.8
Solar	Roof-Mounted PV	Sidney Gehlert	Net Metered	Green Mountain Power	3.6
Solar	Roof-Mounted PV	Spencer Leonard	Net Metered	Green Mountain Power	5
Solar	Roof-Mounted PV	Steve Crossman	Net Metered	Green Mountain Power	5
Solar	Roof-Mounted PV	Steven Robinson	Net Metered	Green Mountain Power	7.6
Solar	Roof-Mounted PV	Terry & Kirsten Riley	Net Metered	Green Mountain Power	3.9
Solar	Roof-Mounted PV	Travis Morse	Net Metered	Green Mountain Power	6.4
Solar	Ground-mounted PV	Vermont Foodbank	Net Metered	Green Mountain Power	7.4
Solar	Ground-mounted PV	Warren Elementary School	Net Metered	Green Mountain Power	150
Solar	Roof-Mounted PV	West Hill House B&B	Net Metered	Green Mountain Power	9.2
Solar	Ground-mounted PV	AllEarth Services, LLC	Net Metered	Green Mountain Power	20

Category	Sub Category	Name	Electricity Type	Utility	Capacity kW
Solar	Roof-Mounted PV	William Robinson	Net Metered	Green Mountain Power	5
Solar	Roof-Mounted PV	Cori Ridge Inc.	Net Metered	Green Mountain Power	5
Solar	Roof-Mounted PV	Douglas Stoehr	Net Metered	Green Mountain Power	6.52
Solar	Roof-Mounted PV	Howie Whittle	Net Metered	Northfield Electric Dept.	8.75
Solar	Roof-Mounted PV	James Carpenter	Net Metered	Green Mountain Power	6
Solar	Roof-Mounted PV	Julia Purinton	Net Metered	Green Mountain Power	3
Solar	Roof-Mounted PV	Linda Barnes	Net Metered	Green Mountain Power	5
Solar	Roof-Mounted PV	Patrick Campbell	Net Metered	Green Mountain Power	6
Solar	Roof-Mounted PV	Patrick Frisk	Net Metered	Green Mountain Power	20
Solar	Roof-Mounted PV	Walter Oberlander	Net Metered	Green Mountain Power	4.2
Solar	Roof-Mounted PV	David Sellers	Net Metered	Green Mountain Power	7.6
Solar	Roof-Mounted PV	James Smith	Net Metered	Green Mountain Power	3.8
Solar	Roof-Mounted PV	John Call	Net Metered	Green Mountain Power	10
Solar	Roof-Mounted PV	F. Kincaid Perot	Net Metered	Green Mountain Power	3.25
Solar	Roof-Mounted PV	Richard Whitworth	Net Metered	Green Mountain Power	7.6
Solar	Roof-Mounted PV	John Moir	Net Metered	Green Mountain Power	7.6
Solar	Roof-Mounted PV	Steve Butcher	Net Metered	Green Mountain Power	9
Solar	Ground-mounted PV	Doug Berlan	Net Metered	Green Mountain Power	7.6
Solar	Roof-Mounted PV	Hans Boerma	Net Metered	Green Mountain Power	5.22
Solar	Roof-Mounted PV	Dorothy Kyle Brattstrom	Net Metered	Green Mountain Power	17
Wind	Small Wind	John Barkhausen	Net Metered	Green Mountain Power	2

Source: Energy Action Network – 2018



WARREN
Known Constraints Map

Known Constraints

These constraints signal likely, though not absolute, unsuitability for development based on statewide or local regulation or designated critical resources.

Link to Data -
http://vcgi.vermont.gov/opendata/act174

Known Constraints
Vernal Pools incuding confirmed and unconfirmed -
Vermont Fish and Wildlife
DEC River Corridors -
DEC WSMD Rivers Program 1/2/15
FEMA Floodway included in Zones AE -
FEMA Map Service Center
State-significant Natural Communities and Rare, Threatened, and Endangered Species -
Vermont Fish and Wildlife, Natural Heritage Inventory
National Wilderness Areas -
USDA Forest Service
Class 1 and Class 2 Wetlands (VSWI) and Advisory Layers - VT Watershed Management Division

This map was created as part of a Regional Energy Planning Initiative being conducted by the Bennington County Regional Commission, and the Vermont Public Service Department.

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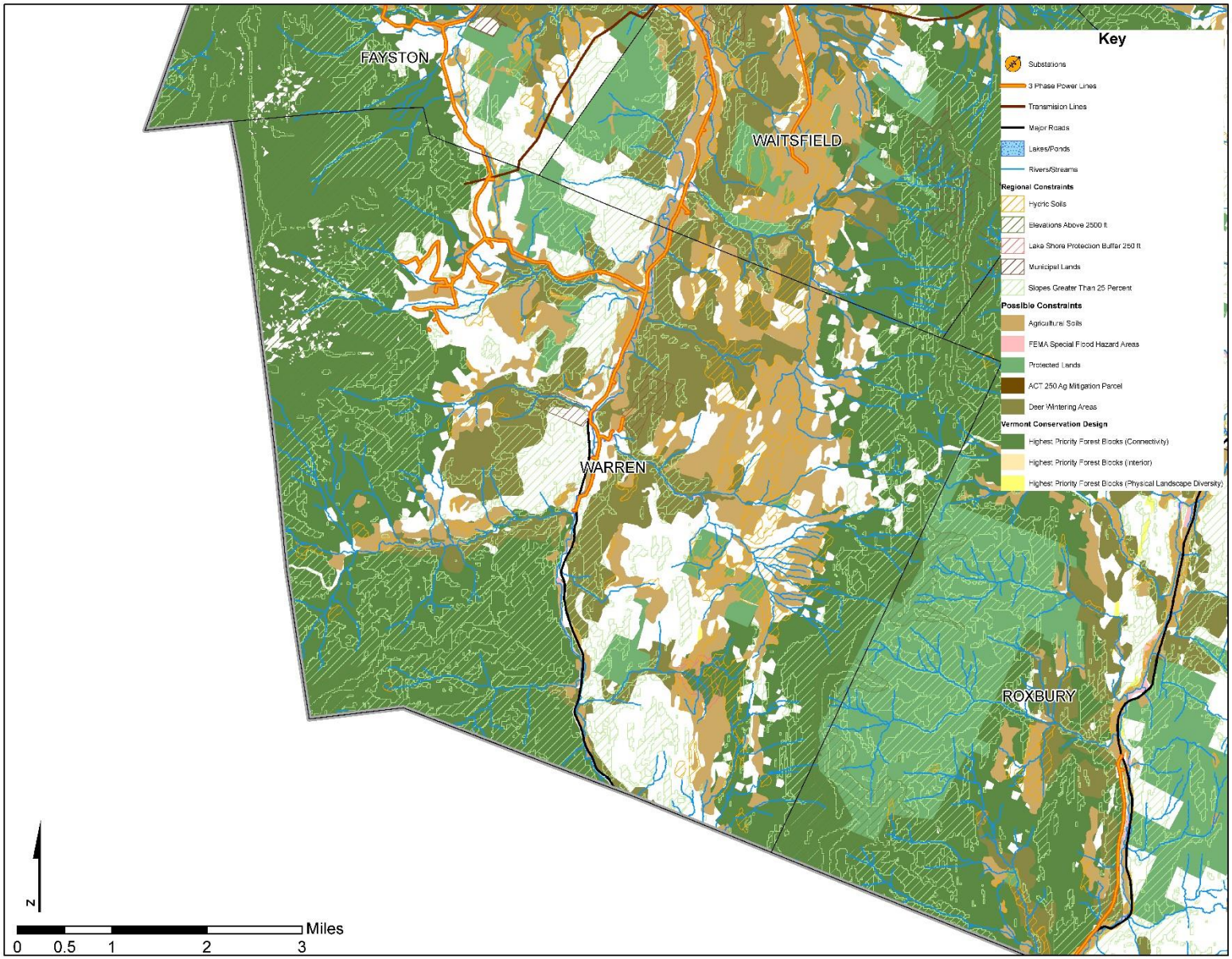

WARREN
Possible Constraints Map

Possible Constraints

These constraints signals conditions that would likely require mitigation, and which may prove a site unsuitable after site-specific study, based on statewide or regional/ local policies that are currently adopted or in effect.

Link to Data - http://vcgi.vermont.gov /opendata/act174

Possible Constraints Data Sources
Agricultural Soils include local, prime and statewide classifications - NRCS
FEMA Special Flood Hazard Areas include Zones A and AE - FEMA Map Service Center
Protected Lands - Include State fee lands and private conservation lands - VCGI
Act 250 Ag Mitigation Parcels include parcel as of 2006 - VT Dept. of Ag
Deer Wintering Areas - VT Fish and Wildlife
Vermont Conservation Design include the following Highest Priority Forest Blocks: Connectivity, Interior, and Physical Landscape Diversity) - VT Fish and Wildlife
Hydric Soils include soils that have hydric named components in the map unit - NRCS

This map was created as part of a Regional Energy Planning Initiative being conducted by the Bennington County Regional Commission, and the Vermont Public Service Department.

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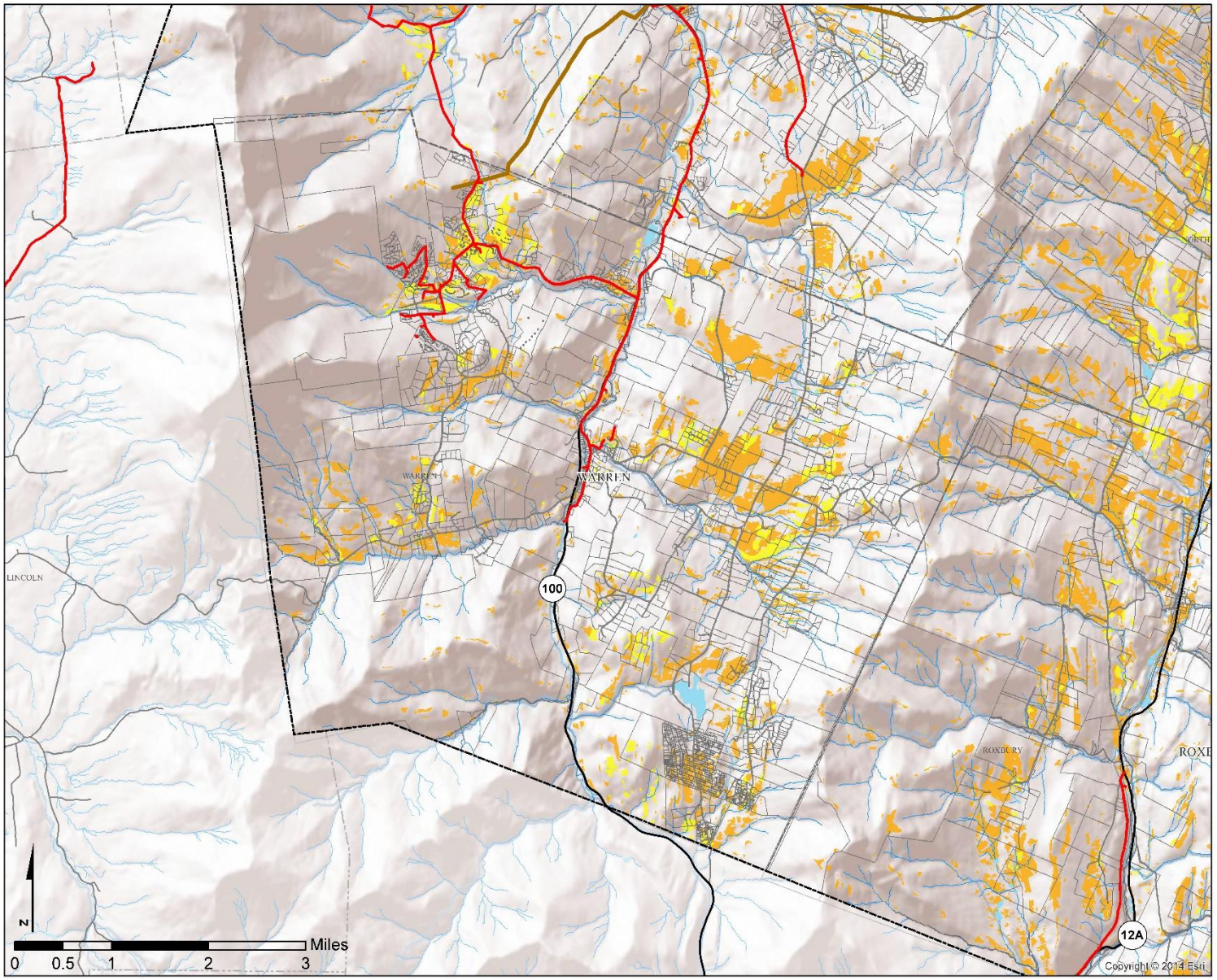

WARREN

Solar Resources Map

Legend

- Substations
- 3 Phase Power Lines
- Distribution Lines

Solar Potential

- Prime (No Constraint)
- Secondary (Possible Constraint)
- Parcels

Roads

- Interstate
- US Highway
- Vermont State Highway
- Town Class 1-3

Known Constraints

Areas not shown on map

Vernal Pools
River Corridors
FEMA Floodways
Natural Communities & Rare, Threatened and Endangered Species
National Wilderness Areas
Wetlands Class 1 and 2

Possible Constraints

VT Agriculturally Important Soils
FEMA Special Flood Hazard Areas
Protected Lands
Act 250 Agricultural Soil Mitigation Areas
Deer Wintering Areas
Highest Priority Forest Blocks
Hydric Soils
Elevations Above 2500Ft
Lake Shore Protection Buffer 250 Ft
Municipal Lands
Slopes Greater Than 25 Percent

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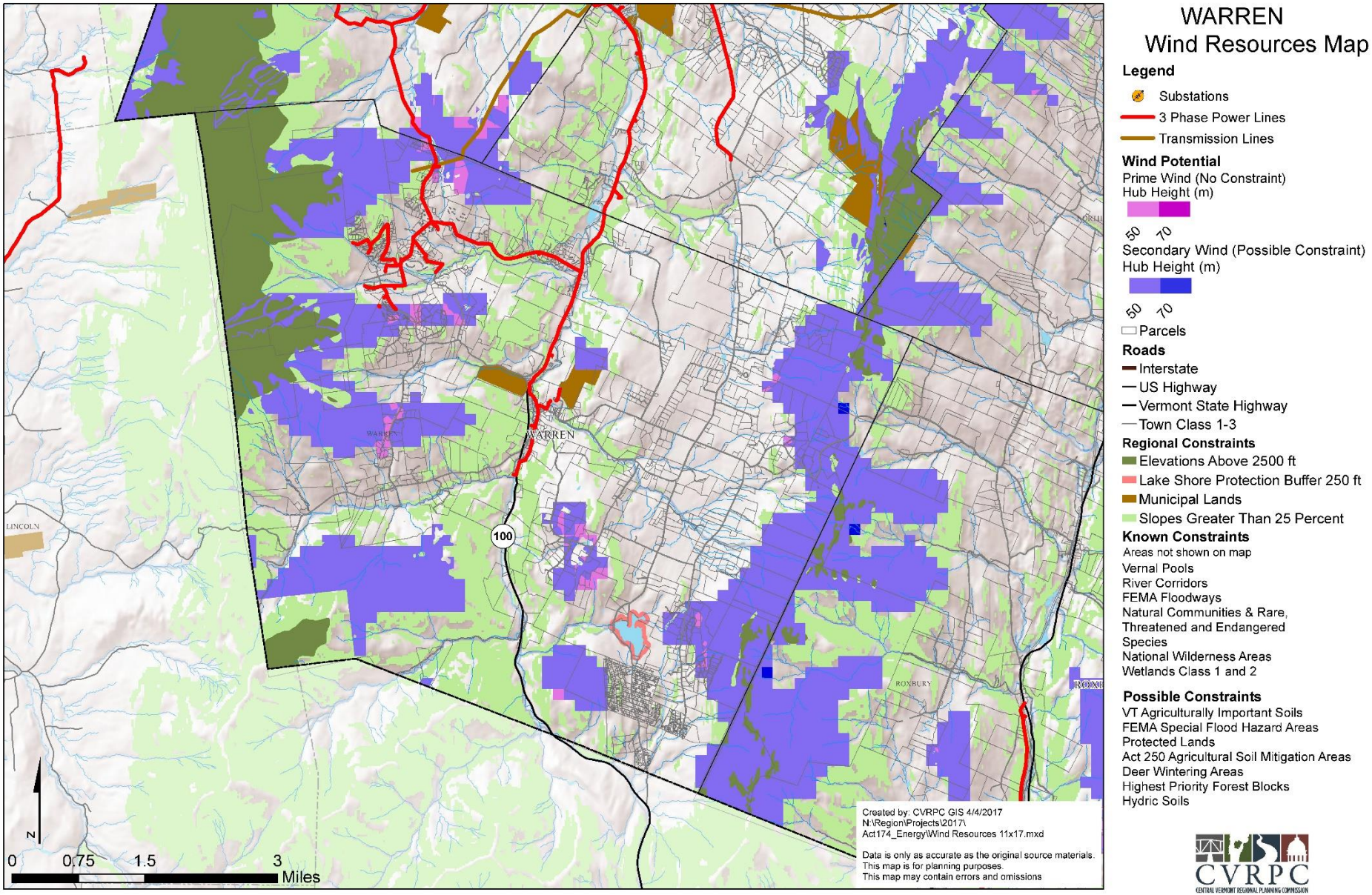
WARREN
Wind Resources Map
Legend
Substations
3 Phase Power Lines
Transmission Lines
Wind Potential
Prime Wind (No Constraint)
Hub Height (m)
50
70
Secondary Wind (Possible Constraint)
Hub Height (m)
50
70
Parcels
Roads
Interstate
US Highway
Vermont State Highway
Town Class 1-3
Regional Constraints
Elevations Above 2500 ft
Lake Shore Protection Buffer 250 ft
Municipal Lands
Slopes Greater Than 25 Percent
Known Constraints
Areas not shown on map
Vernal Pools
River Corridors
FEMA Floodways
Natural Communities & Rare, Threatened and Endangered Species
National Wilderness Areas
Wetlands Class 1 and 2
Possible Constraints
VT Agriculturally Important Soils
FEMA Special Flood Hazard Areas
Protected Lands
Act 250 Agricultural Soil Mitigation Areas
Deer Wintering Areas
Highest Priority Forest Blocks
Hydric Soils
WARREN
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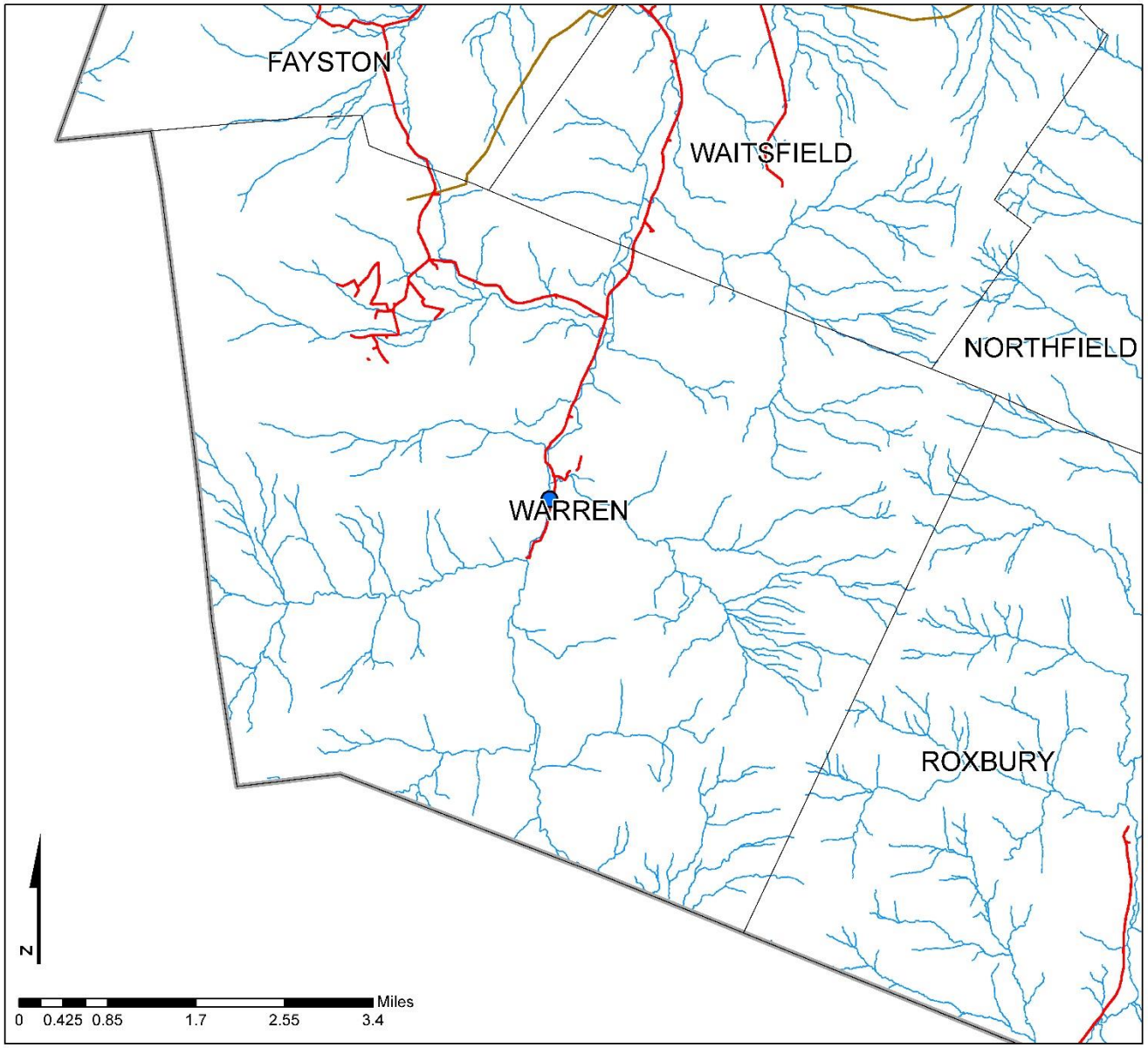
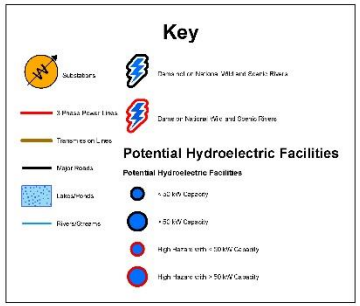


WARREN
Hydroelectric Resources Map



Methodology

This map shows areas of resource potential for renewable energy generation from hydroelectric , i.e., dams that could be converted in to hydroelectric facilities as well as active hydroelectric sites. Existing hydroelectric dam information was extracted from the Vermont Dam Inventory, while potential hydroelectric sites were derived from a study conducted by Community Hydro in 2007.1 Based on estimates conducted within the report, this map categorizes dams based on their potential hydroelectric generation capacity, and the downstream hazard risk that would be involved in hydroelectric production at each site.

High hazard potential dams are those where failure or mis-operation will probably cause loss of human life. The other rankings were grouped together and their failure or mis-operation results in no probable loss of human life, but could cause economic loss, environmental damage, disruption of lifeline facilities, or impact other concerns. These dams are often located in predominately rural or agricultural areas, but could be located in areas withpopulation and significant infrastructure.

This map was created as part of a Regional Energy Planning Initiative being conducted by the Bennington County Regional Commission, and the Vermont Public Service Department.

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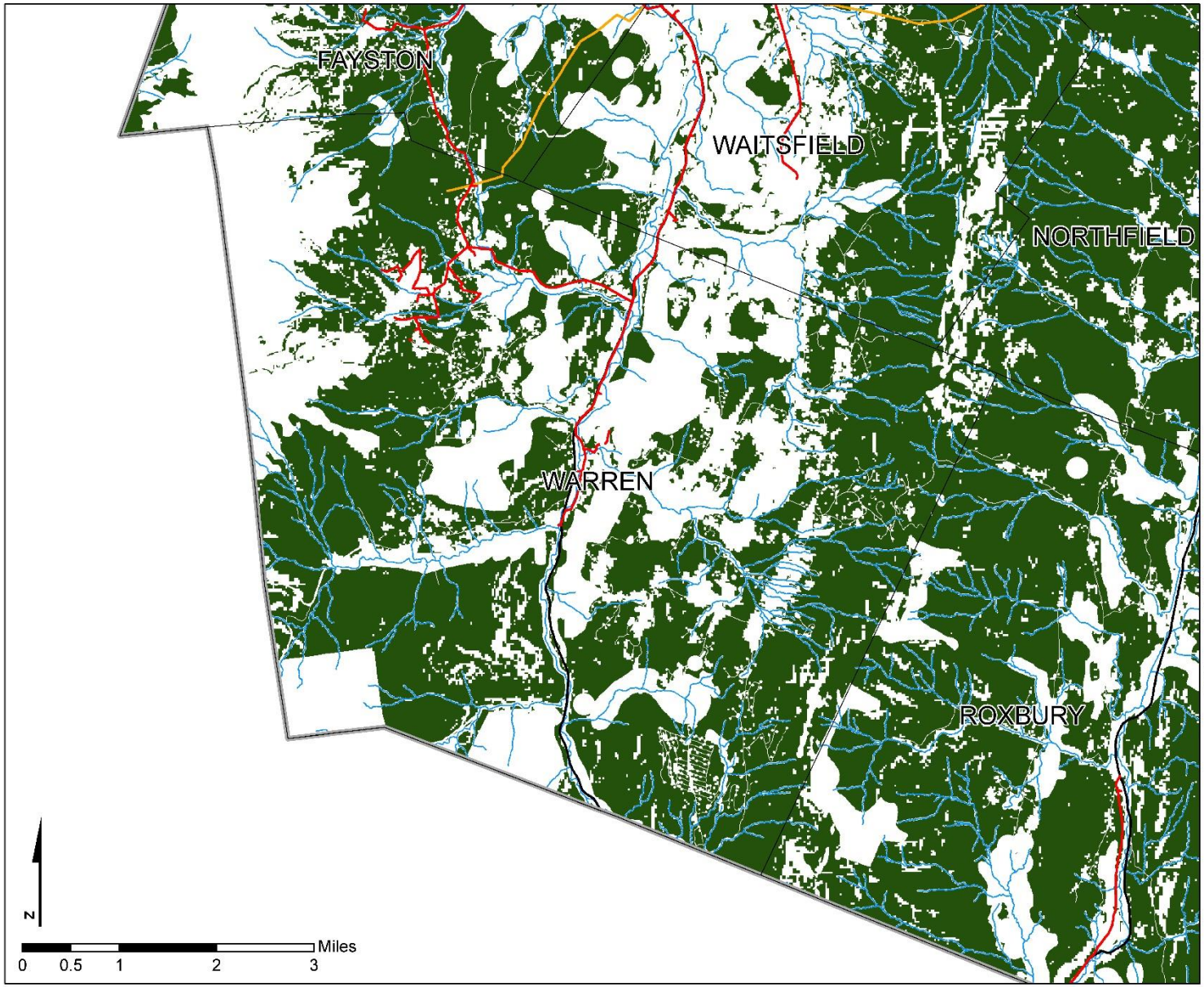

WARREN
Woody Biomass Resources Map

Key

- Substations
- 3 Phase Power Lines
- Transmission Lines
- Major Roads
- Lakes/Ponds
- Rivers/Streams
- Woody Biomass

Methodology

This map shows areas of resource potential for woody biomass, i.e., locations where forested areas are. This map also considers various other conditions, such as ecological zones, that may impact the feasibility of renewable energy/alternative heating source. These conditions are referred to as constraints. This map does not include areas where other types of biomass, such as biomass from agricultural residue, could be grown/harvested.

This map was created as part of a Regional Energy Planning Initiative being conducted by the Bennington County Regional Commission, and the Vermont Public Service Department.

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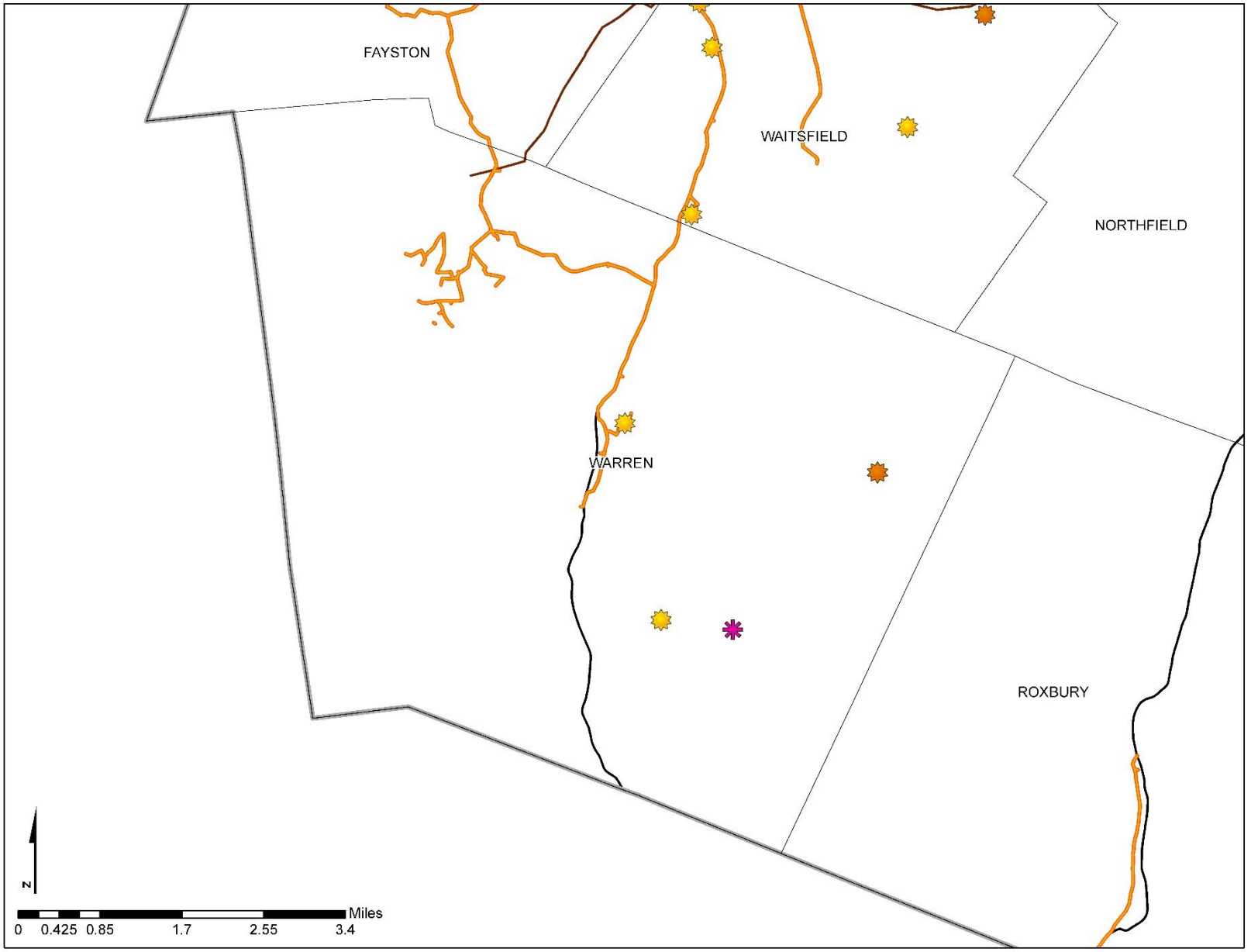
CENTRAL VERMONT REGIONAL PLANNING COMMISSION



Central Vermont Regional Planning Commission
Existing Renewable Energy Generation
WARREN

Key

- Biomass for Heat - Current Sites
- Wind Generation - Current Sites

Solar Sites - Current Generation > 15 KW

- Ground-mounted PV
- Roof-Mounted PV
- Substations
- 3 Phase Power Lines
- Transmision Lines
- Major Roads

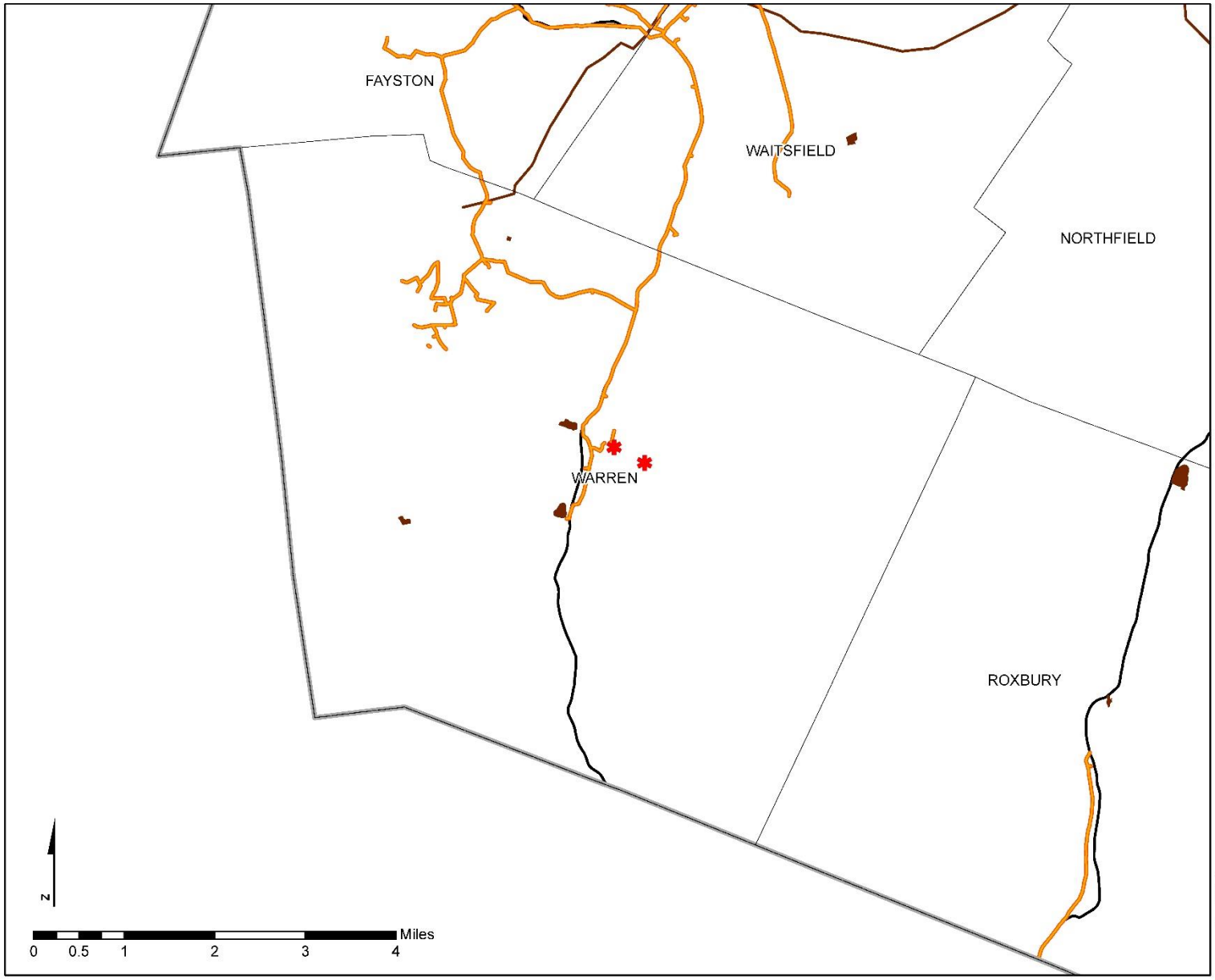
CVRPC
CENTRAL VERMONT REGIONAL PLANNING COMMISSION

Data:

Wind and Biomass generation:
VT Energy Dashboard
Solar Sites: VT Energy Dashboard

This map was created as part of a Regional Energy Planning Initiative being conducted by the Bennington County Regional Commission, and the Vermont Public Service Department.

Created: November 2017 by CVRPC GIS.



Central Vermont Regional Planning Commission Preferred Sites

WARREN

Key

- Brownfields Sites
- Moretown Landfill
- Sand and Gravel Pits
- Quarries
- Substations
- 3 Phase Power Lines
- Transmision Lines
- Major Roads

CVRPC
CENTRAL VERMONT REGIONAL PLANNING COMMISSION

Data:

Brownfields: VT ANR, VCGI.
Sand and Gravel Pits, Quarries:
CVRPC, 2013 disgitized from 1998 imagery.

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