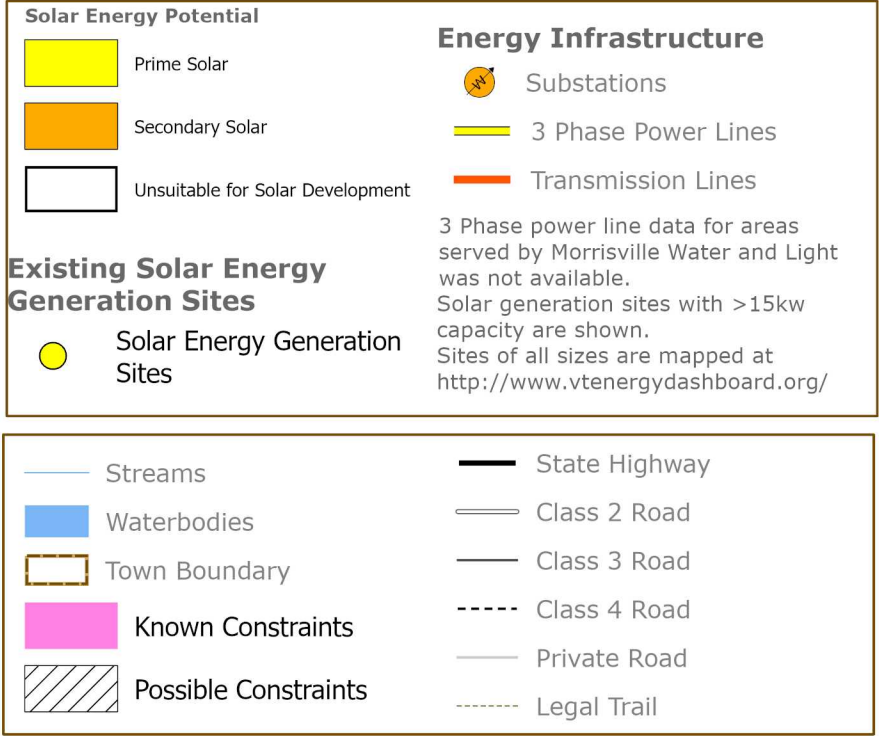


Stowe
Renewable Energy Potential: Solar
This map illustrates potential for energy development
but not necessarily suitability



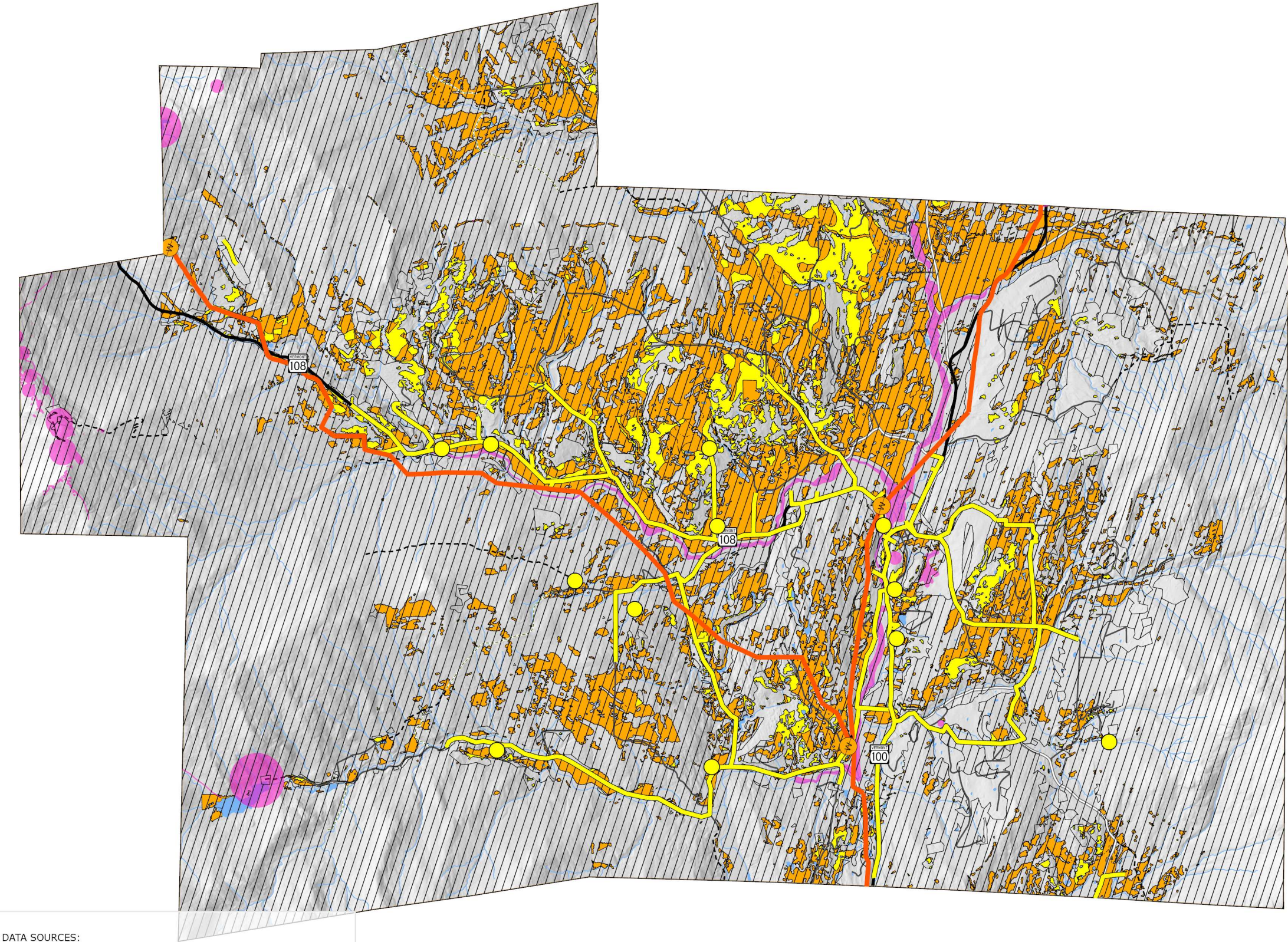
Methodology
This map shows areas of resource potential for renewable energy generation from solar, i.e. locations where renewable energy generation would likely be most feasible according to the natural conditions of an area. This map also considers various other conditions, such as ecological zones, that may impact the feasibility of renewable energy development. These conditions are referred to as constraints.

Prime Solar
Areas with high solar potential and no environmental constraints.

Secondary Solar
Areas with high solar potential and environmental constraints that may pose an obstacle to development. These areas are shown on the map and include the following constraints:

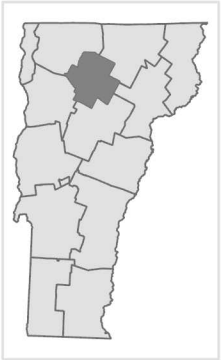
- Known Constraints:
- Vernal Pools from VCE (None known in Lamoille County)
 - FEMA Special Flood Hazard Areas
 - Protected Lands (State fee lands and private conservation lands)
 - DEC River Corridors
 - FEMA Floodways
 - State Significant Natural Communities
 - Rare, Threatened, and Endangered Species
 - National Wilderness Areas (None known in Lamoille County)
 - Class 1 and 2 Wetlands

- Possible Constraints:
- Agricultural Soils
 - Act 250 Agricultural Soil Mitigation Areas
 - Deer Wintering Areas
 - Hydric Soils
 - Interior Forest Blocks
 - Connectivity Blocks
 - Physical Landscape Blocks
 - Surface Water



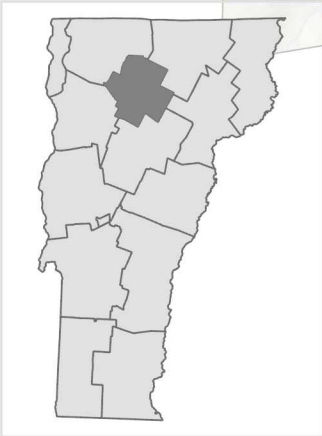
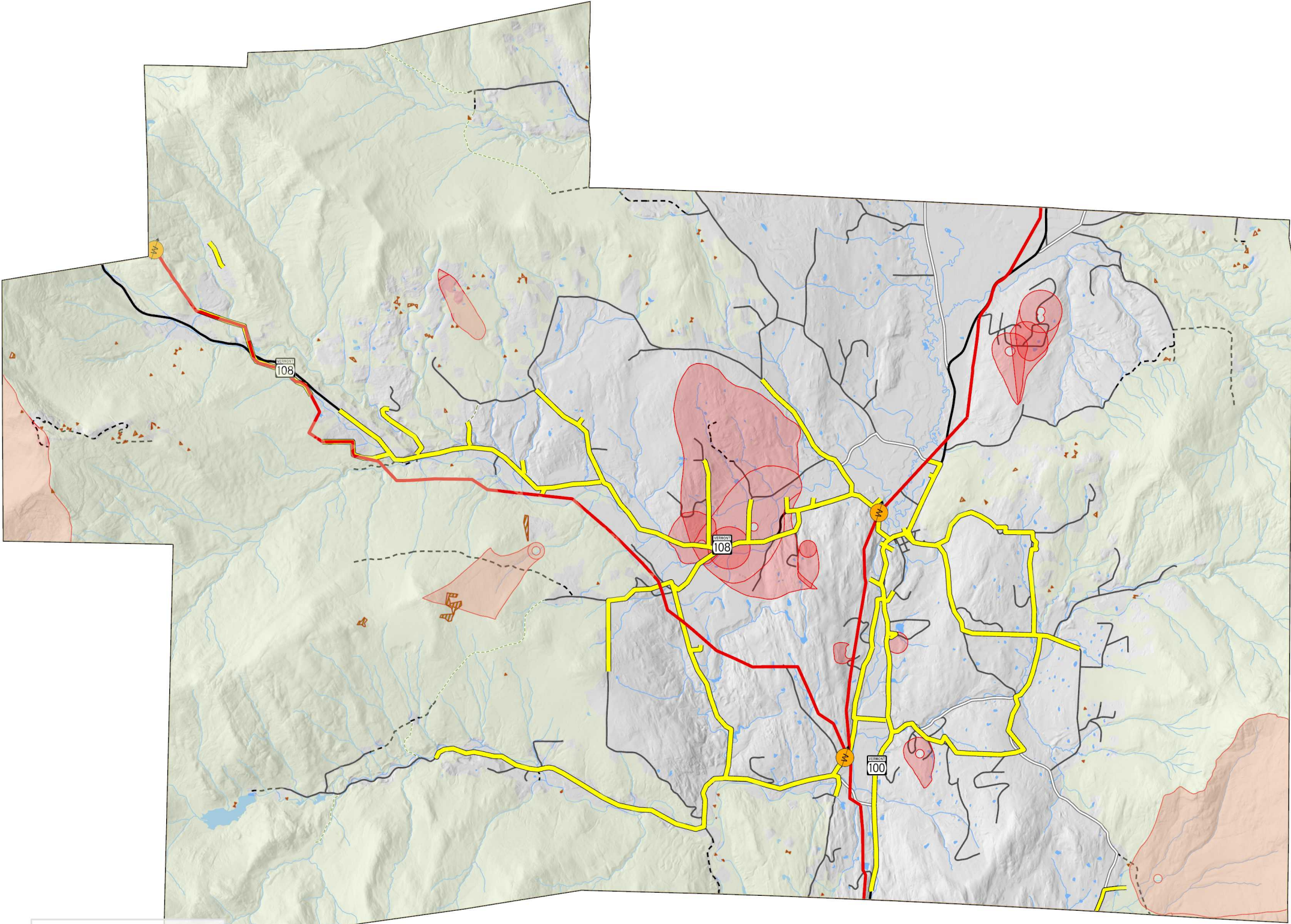
DATA SOURCES:
SOLAR ENERGY POTENTIAL: VT Department of Public Service, 2024
3 PHASE POWER LINES: Data from town utilities, Vermont Electric Co-op, and Green Mountain Power
EXISTING SOLAR GENERATION SITES: VT PSD Energy Planning Atlas 2024
POLITICAL BOUNDARIES: 1:24000 USGS Quadrangles, VCGI, 1991.
ROADS: 1:5000 VTrans Road Data, 2021.
SURFACE WATER: On-screen digitized from 1:5000 digital orthophotos using USGS 7 1/2' quadrangles and 1:20000 color infrared aerial photography as additional source material, VCGI for VHD-USGS, 2001.

Map created by LCPC, 2024



Stowe

Renewable Energy Potential: Regional Considerations



Sites identified in Municipalities energy plans as preferred for certain types of energy generation

★ Preferred Combined Heat and Power Generation Sites

★ Preferred Solar Sites

Energy Infrastructure

● Substations

— 3 Phase Power Lines

— Transmission Lines

3 Phase power line data for areas served by Morrisville Water and Light was not available.

— Streams

■ Waterbodies

□ Town Boundary

Other Regional Considerations

■ Ground Water Source Protection Areas: Zones 1, 2 and 3

■ Additional High Priority Forest Blocks

■ Green River Reservoir

■ Highest Priority Forest Blocks

— State Highway

— Class 2 Road

— Class 3 Road

--- Class 4 Road

— Private Road

--- Legal Trail

DATA SOURCES:
GROUNDWATER SOURCE PROTECTION AREAS: VCGI, 2017
ADDITIONAL HIGH PRIORITY FOREST BLOCKS: Working Forest Lands not within in High Priority Interior Forest Blocks, VCGI, 207
SUBSTATIONS: VCGI, 2017
3 PHASE POWER LINES: Data from town utilities, Vermont Electric Co-op, and Green Mountain Power
POLITICAL BOUNDARIES: 1:24000 USGS Quadrangles, VCGI, 1991.
ROADS: 1:5000 VTrans Road Data, 2021.
SURFACE WATER: On-screen digitized from 1:5000 digital orthophotos using USGS 7 1/2' quadrangles and 1:20000 color infrared aerial photography as additional source material, VCGI for VHD-USGS, 2001.
Map created by LCPC, 2024

0

4 Miles

Stowe

Renewable Energy Potential: WIND

This map illustrates potential for energy development but not necessarily suitability

Wind Energy Potential

Prime Wind

Secondary Wind

Unsuitable for Wind Development

Energy Infrastructure

Substations

3 Phase Power Lines

Transmission Lines

3 Phase power line data for areas served by Morrisville Water and Light was not available.

Elevation above 1500 feet

1 km Residential Buffer

Streams

Waterbodies

Town Boundary

Possible Constraints

Known Constraints

State Highway

Class 2 Road

Class 3 Road

Class 4 Road

Private Road

Legal Trail

Methodology
This map shows areas of resource potential for renewable energy generation from wind, i.e. locations where renewable energy generation would likely be most feasible according to the natural conditions of an area. This map also considers various other conditions, such as ecological zones, that may impact the feasibility of renewable energy development. These conditions are referred to as constraints.

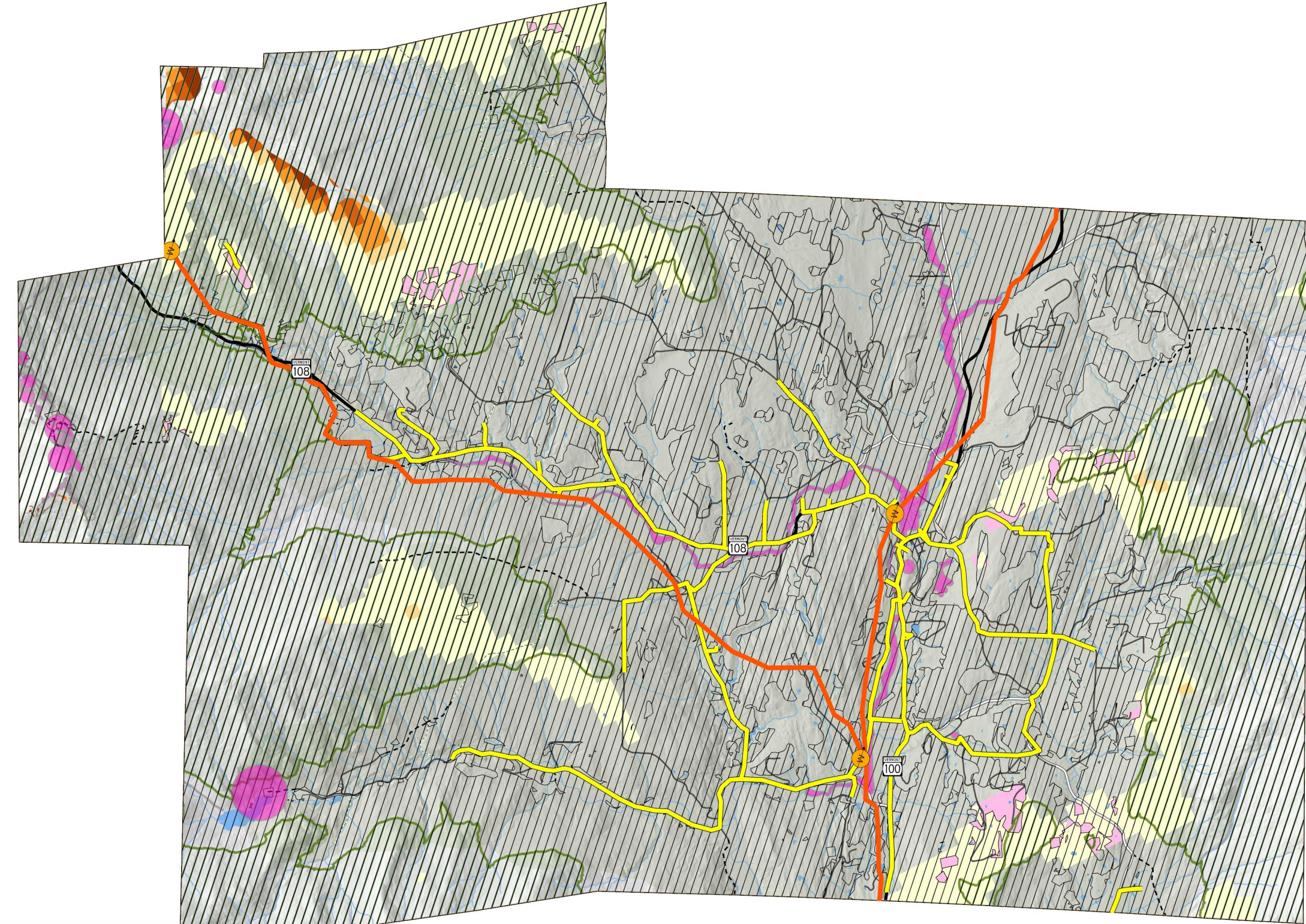
Prime wind
Areas with high wind potential and no environmental constraints.

Secondary wind
Areas with high wind potential and environmental constraints that may pose an obstacle to development. These areas are shown on the map and include the following constraints:

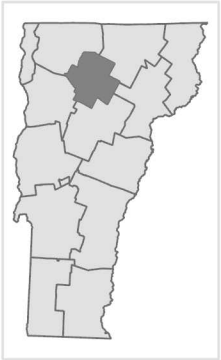
- Agricultural soils (local, prime and statewide classifications),
- FEMA special flood hazard areas, Protected lands,
- Act 250 agricultural soil mitigation areas, Hydric soils,
- Deer wintering yards, Highest priority forest blocks

Areas where wind energy is likely unsuitable
Areas with low wind potential or environmental constraints likely to prohibit development. These areas have been removed and are not shown in any way on this map. Environmental constraints are:

- Known Constraints:
- Vernal Pools from VCE (None known in Lamoille County)
 - FEMA Special Flood Hazard Areas
 - Protected Lands (State fee lands and private conservation lands)
 - DEC River Corridors
 - FEMA Floodways
 - State Significant Natural Communities
 - Rare, Threatened, and Endangered Species
 - National Wilderness Areas (None known in Lamoille County)
 - Class 1 and 2 Wetlands
- Possible Constraints:
- Agricultural Soils
 - Act 250 Agricultural Soil Mitigation Areas
 - Deer Wintering Areas
 - Hydric Soils
 - Interior Forest Blocks
 - Connectivity Blocks
 - Physical Landscape Blocks
 - Surface Water



DATA SOURCES:
WIND POTENTIAL, SUBSTATIONS: VCGI, 2020
3 PHASE POWER LINES: Data from town utilities, Vermont Electric Co-op, and Green Mountain Power
POLITICAL BOUNDARIES: 1:24000 USGS Quadrangles, VCGI, 1991.
ROADS: 1:5000 VTrans Road Data, 2021.
SURFACE WATER: On-screen digitized from 1:5000 digital orthophotos using USGS 7 1/2' quadrangles and 1:20000 color infrared aerial photography as additional source material, VCGI for VHD-USGS, 2001.
ELEVATION ABOVE 1500 FT: Derived from VCGI LIDAR
1 KM RESIDENTIAL BUFFER: Created using residential locations from E911 site data, VCGI/E911 site board, 2017
Map created by LCPC, 2024
Data has not been field verified and is subject to change. Use for planning purposes only.



***This map illustrates potential for energy development
but not necessarily suitability***




Hydroelectric Facilities



Potential sites

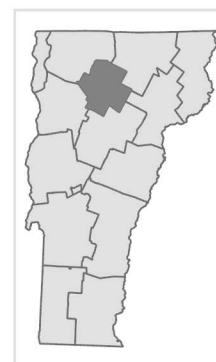
- <50 kW Capacity
- >50 kW Capacity

Energy Infrastructure

-  Substations
 3 Phase Power Lines
 Transmission Lines
- 3 Phase power line data for areas served by Morrisville Water and Light was not available.

Hydroelectric Likely Unsuitable

Areas with low hydroelectric potential or environmental constraints have been removed and are not shown in any way on this map.



-
- Legend:
- Streams
 - Waterbodies
 - Town Boundary
 - Possible Constraints
 - Known Constraints
 - State Highway
 - Class 2 Road
 - Class 3 Road
 - Class 4 Road
 - Private Road
 - Legal Trail

Methodology

This map shows areas of resource potential for renewable energy generation from hydroelectric, i.e. dams that could be converted into 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 2007. 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.

Data Sources:

POTENTIAL HYDROELECTRIC SITES: VCGI, 2020
SUBSTATIONS: VCGI, 2017
3 PHASE POWER LINES: Data from town utilities,
Vermont Electric Co-op, and Green Mountain Power
POLITICAL BOUNDARIES: 1:24000 USGS Quadrangles, VCGI, 1991.
ROADS: 1:5000 VTrans Road Data, 2021.
SURFACE WATER: On-screen digitized from 1:5000 digital
orthophotos using USGS 7 1/2' quadrangles and 1:20000
color infrared aerial photography as additional source material,
VCGI for VHD-USGS, 2001.

Map created by LCPC, 2024

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☐ Miles