Resource Areas - Water and Wildlife
Town of Grafton, Vt.
November 2018

Data sources:
- Natural Heritage data are from VT Dept. of Fish and Wildlife, Natural and Natural Heritage Programs Natural Heritage Inventory Database. This includes data on Rare, Threated and Endangered Species and Significant Natural Communities database (VGIS layer RTENATCOM) and on uncommon species and other features (VGIS layer UNCOMSPOF), 2015.
- Deer wintering areas are taken from the VGIS data layer DEERWN. They were delineated by VT ANR, Department of Fish and Wildlife, and have been updated to a limited extent through 2011.
- Wetlands data are from the Vermont Significant Wetlands Inventory (VGIS data layer VSWI) of 2010. These include wetlands in the original VSWI data, as well as those from National Wetlands Inventory (NWI) maps, and show approximate locations of wetlands that are generally 3 acres or larger.
- Surface waters are from the Vermont Hydrography Dataset. The dataset was generated at a scale of 1:5000 and was developed using digital orthophotos, topographic maps, color infrared aerial photography and other ancillary data sources.
Resource Areas - Land
Town of Grafton, Vt.
November 2018

Data sources:
- Important farmland soil delineations are derived using soils data available from VCGI. These soils qualify as Primary Agricultural Land under Act 250. Important farmland soil delineations are derived using the 1:20,000 orthophotos from the Windham County Soil Survey.
- Scenic roads and views were taken from the 1988 Resource Areas Town Plan maps.
- Gravel pit locations were digitized from the 1982 Windham County Soil Survey.
- Sand and gravel resources are from the VGIS data layer AGRES. This data layer was derived from "Geology for Environmental Planning" series, which in turn was derived from U.S. Geological Survey sources.
- Contour lines were generated from USGS 1:24000 Digital Elevation Models by WRC using ESRI's Spatial Analyst. They are intended to portray the general hypsography of the area and should not be used to determine actual elevations.
Flood Hazards
Town of Grafton, Vt.
November 2018

- Special Flood Hazard Area boundaries (i.e. "the 100-year floodplain") are from FEMA (Federal Emergency Management Agency) D-FIRM (Digital Flood Insurance Rate Map) data effective September 28, 2007.

- Mapped River Corridor data is from VT ANR Rivers Program 2015 data (VGIS data layer RIVERCORRIDORS).

- Statewide River Corridors are from VT ANR Rivers Program 2015 data (VGIS data layer RIVERCORRIDORS).

Data sources:

- Special Flood Hazard Area boundaries (i.e. "the 100-year floodplain") are from FEMA (Federal Emergency Management Agency) D-FIRM (Digital Flood Insurance Rate Map) data effective September 28, 2007.

- Mapped River Corridor data is from VT ANR Rivers Program 2015 data (VGIS data layer RIVERCORRIDORS).

- Statewide River Corridors are from VT ANR Rivers Program 2015 data (VGIS data layer RIVERCORRIDORS).
Town of Grafton
Known Constraints for Energy Generation *

* - as defined by Vermont's Act 174

Some features are shown slightly larger than their actual size to improve visibility on this small-scale map.
Town of Grafton
Possible Constraints for Energy Generation *

Map 1 of 2

* - as defined by Vermont's Act 174

Hydric Soils
FEMA Special Flood Hazard Areas
Protected lands (state fee lands and private conservation lands)
Deer Wintering Areas
Vermont Conservation Design Highest Priority Forest Blocks

Some features are shown slightly larger than their actual size to improve visibility on this small-scale map.

all possible constraints except ag soils and mitigation areas shown;
ag soils and mitigation areas on Map 2

April 2017
Town of Grafton
Possible Constraints for
Energy Generation *

Map 2 of 2

* - as defined by Vermont's Act 174

- Agricultural Soils
- Act 250 Agricultural Soil Mitigation Areas

Some features are shown slightly larger than their actual size to improve visibility on this small-scale map.

only ag soils and mitigation areas shown; all other possible constraints are shown on Map 1

April 2017
- The actual raw solar data used by the State of Vermont in their Act 174 analysis has not yet been released to the public (though the final, post-analysis data has).
- The data on this map were developed by WRC using similar criteria, and until the actual raw data is released to the public, the data on this map will serve as a proxy.

Solar radiation generally suitable for generation determined by identifying areas with appropriate aspect, and excluding sites too steep for development (> 15% slope)
Town of Grafton Solar Energy Potential

Prime Solar Energy Resource
- generally adequate solar resources and no identified constraints (i.e., no "known" and no "possible" constraints)

Secondary Solar Energy Resource
- generally adequate solar resources and no "known" constraints, but at least one "possible" constraint

"known" and "possible" constraints are identified by the VT Public Service Department in their Act 174 Energy Planning Standards
Note: prime vs. secondary solar energy resource is NOT based on solar intensity.

Existing solar installations:
- 1 - 19 kW (generally smaller-scale on-site: residence, farm, school, or business)
- 20 - 70 kW
- 140 - 150 kW (generally larger-scale commercial/utility solar farms)
- 360 - 2000 kW

Existing solar installations from the Vermont Energy Atlas, developed from Certificates of Public Good; they may correspond to the address of the certificate holder and not the actual location of the installation.

Substations
- 3 Phase Power Lines
- Transmission Lines

April 2017

map by Windham Regional Commission, Brattleboro, VT
April 2017; u:\GIS\Projects\Energy\shape\town_11x17\WindEnergy.mxd
The actual raw wind data used by the State of Vermont in their Act 174 analysis has not yet been released to the public (though the final, post-analysis data has). The data on this map are very similar to that actual raw data, and until the actual raw data is released to the public, the data on this map will serve as a proxy.
Town of Grafton
Wind Energy Potential

Prime Wind Energy Resource
generally adequate wind resources and no identified constraints
(i.e., no "known" and no "possible" constraints)

Secondary Wind Energy Resource
generally adequate wind resources and no "known" constraints,
but at least one "possible" constraint

"known" and "possible" constraints are identified
by the VT Public Service Department in their
Act 174 Energy Planning Standards

Note: prime vs. secondary wind energy
resource is NOT based on wind speed.

Existing Small Wind
Existing Commercial Wind
Commercial Wind In Development

Existing wind from the Vermont Energy Atlas, developed from
Certificates of Public Good. They may correspond to the address
of the certificate holder and NOT the actual location of the installation.

Substations
3 Phase Power Lines
Transmission Lines

April 2017
Note: This Proposed Land Use map is a part of the Town Plan expressing the vision of the Plan in general terms. It is intended to be used in concert with the Plan’s policies to articulate the desired future for the town. This map is for planning purposes and general reference only.