

# Town of Grafton Possible Constraints for Energy Generation \*

## Map 1 of 2

- 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*

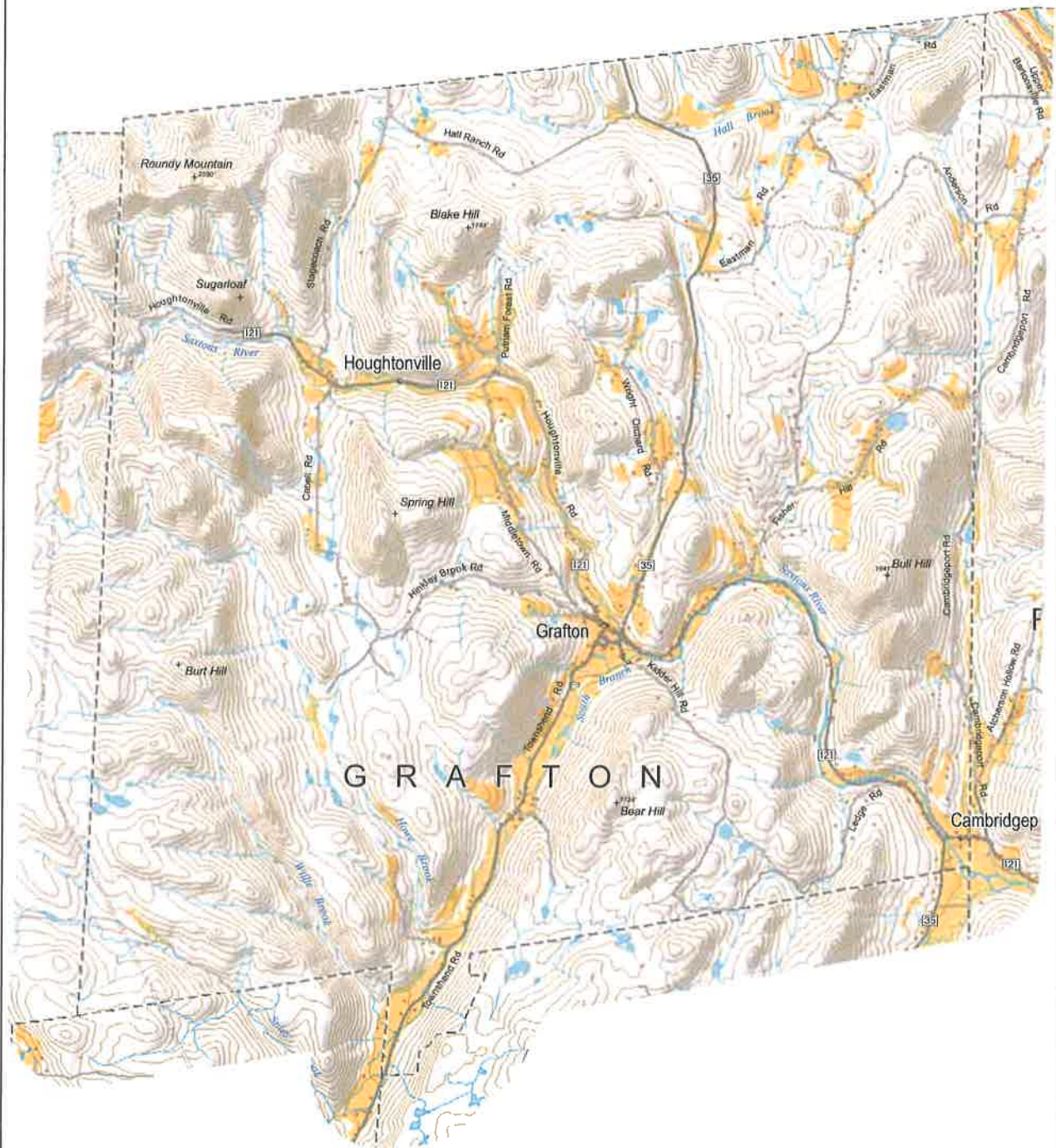
\* - as defined by Vermont's Act 174

0 0.5 1 2 Miles

5 acres   
  50 acres   
  100 acres

April 2017

map by Windham Regional Commission, Brattleboro, VT  
April 2017; u:\GIS\projects\Energy\maps\Town\_Constraints-possible\_11x17.mxd



# Town of Grafton Possible Constraints for Energy Generation \*

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

## Map 2 of 2

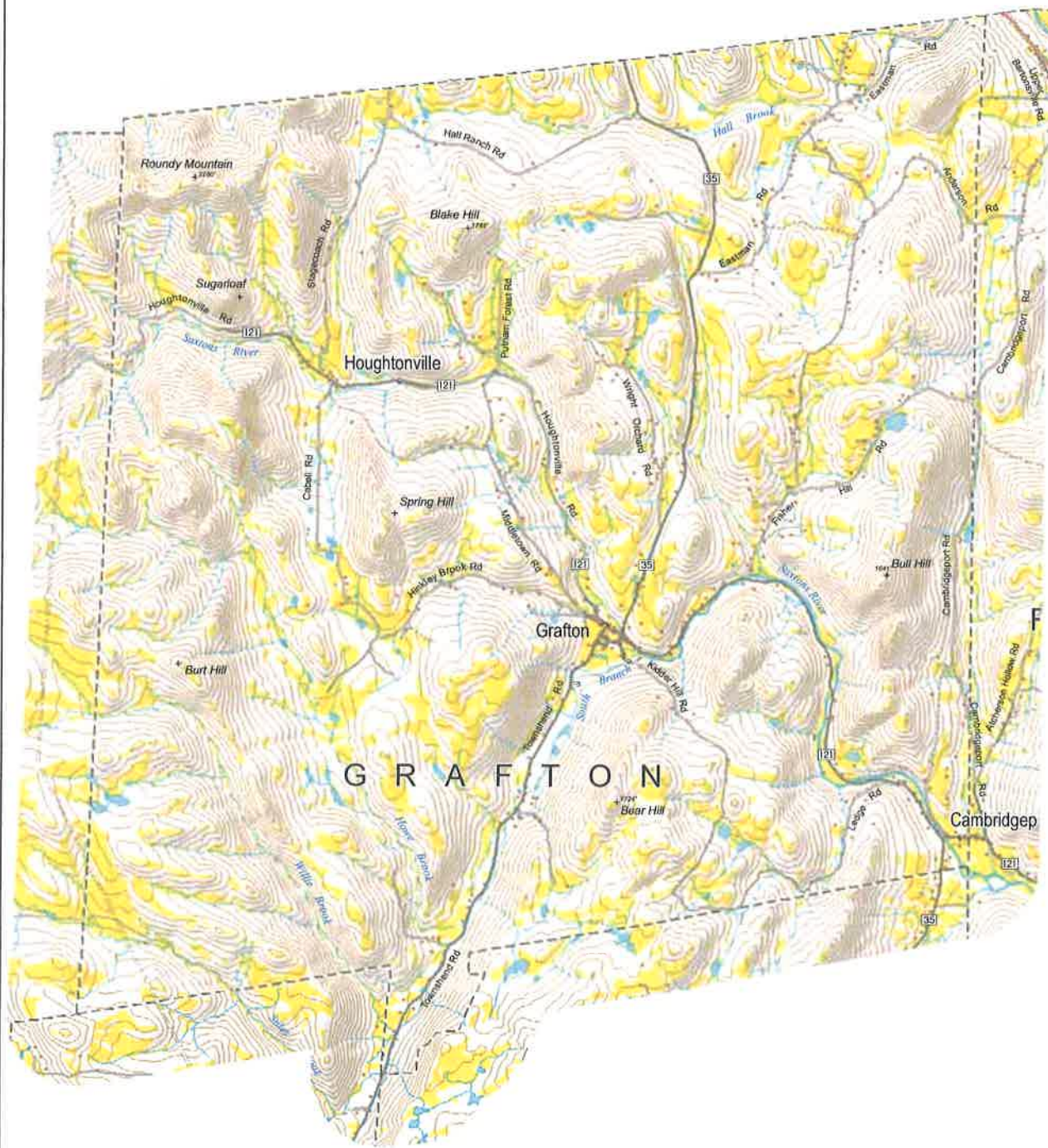
- Agricultural Soils
- Act 250 Agricultural Soil Mitigation Areas

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


\* - as defined by Vermont's Act 174

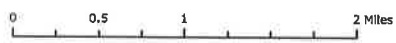


April 2017



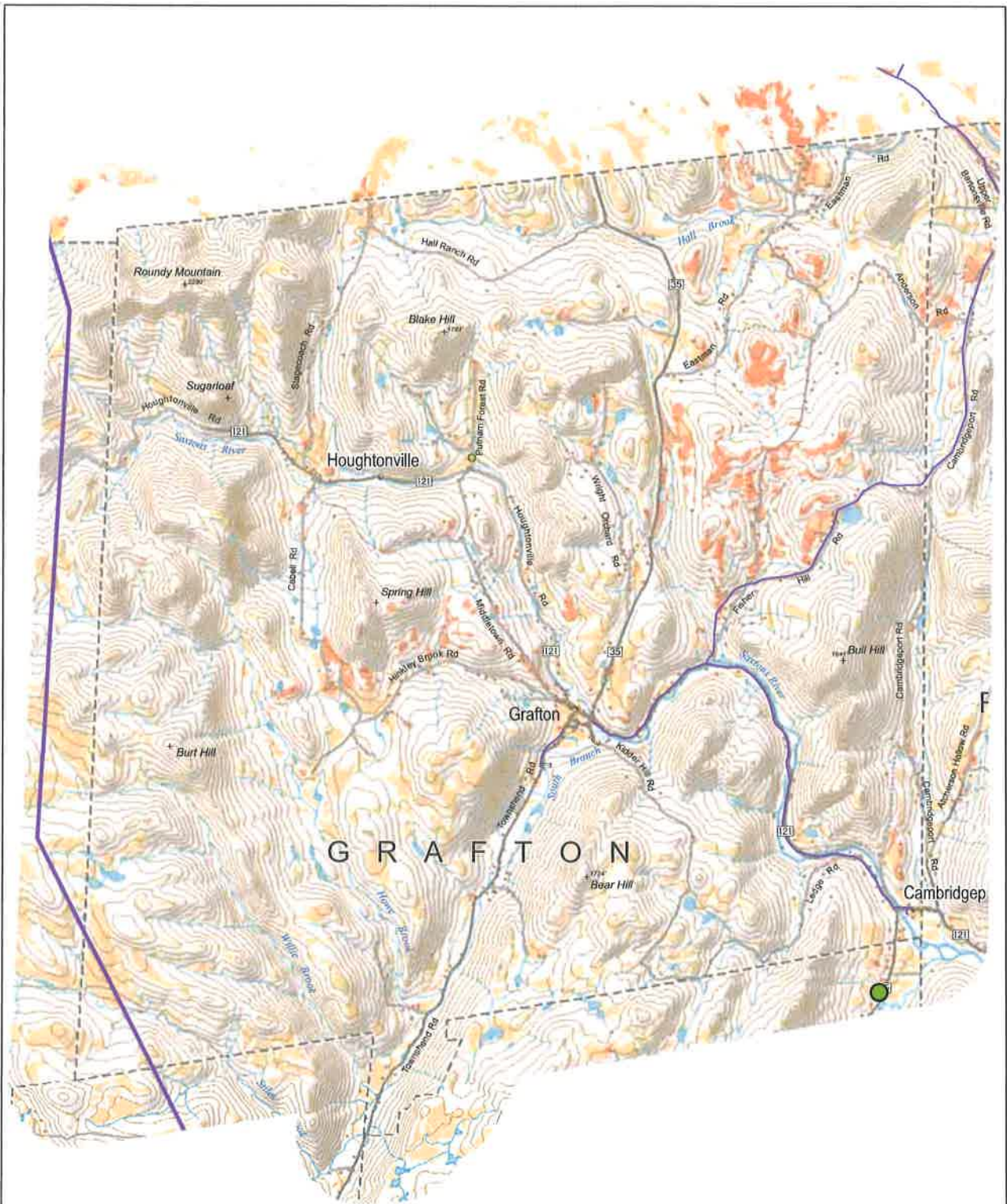
## Town of Grafton Solar Resource

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



- 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.

April 2017



## 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.

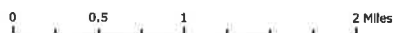
### Existing solar installations:

- 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

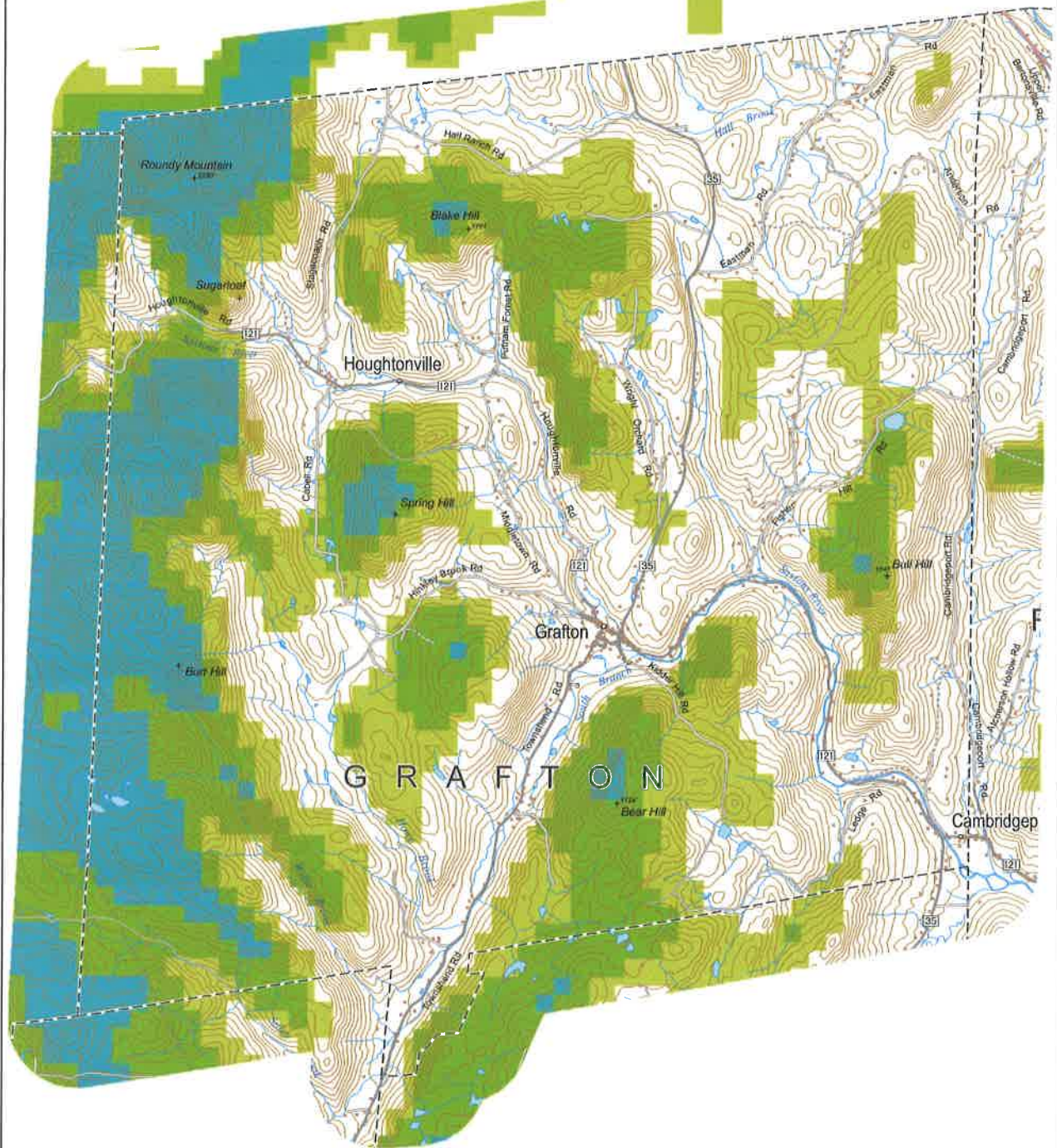
Existing solar installations from the Vermont Energy Atlas, developed  
from Certificates of Public Good; they may correspond to the address of  
the certificate holder and not the actual location of the installation.



- ⚡ Substations
- 3 Phase Power Lines
- Transmission Lines



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## Town of Grafton Wind Resource

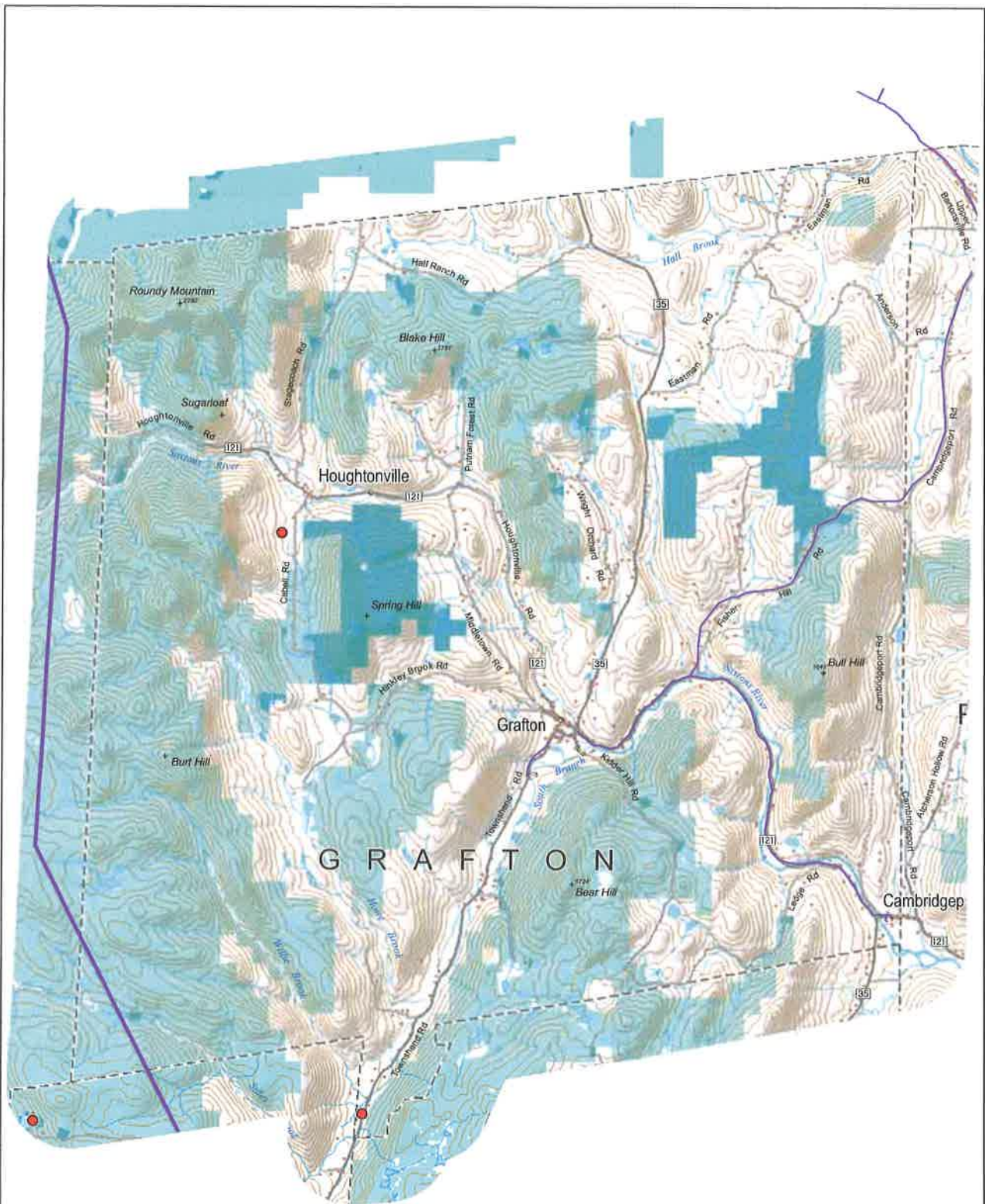
- Generally suitable wind for residential generation
- Generally suitable wind for small scale commercial generation (along with residential generation)
- Generally suitable wind for large scale commercial generation (along with residential and small scale commercial)  
darker color = higher wind speed

- 5 acres
- 10 acres
- 50 acres
- 100 acres

0 0.5 1 2 Miles

- 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.

April 2017



# 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

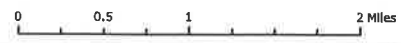
**Note: prime vs. secondary wind energy resource is NOT based on wind speed.**

- Existing Small Wind
- Existing Commercial Wind
- Commercial Wind In Development

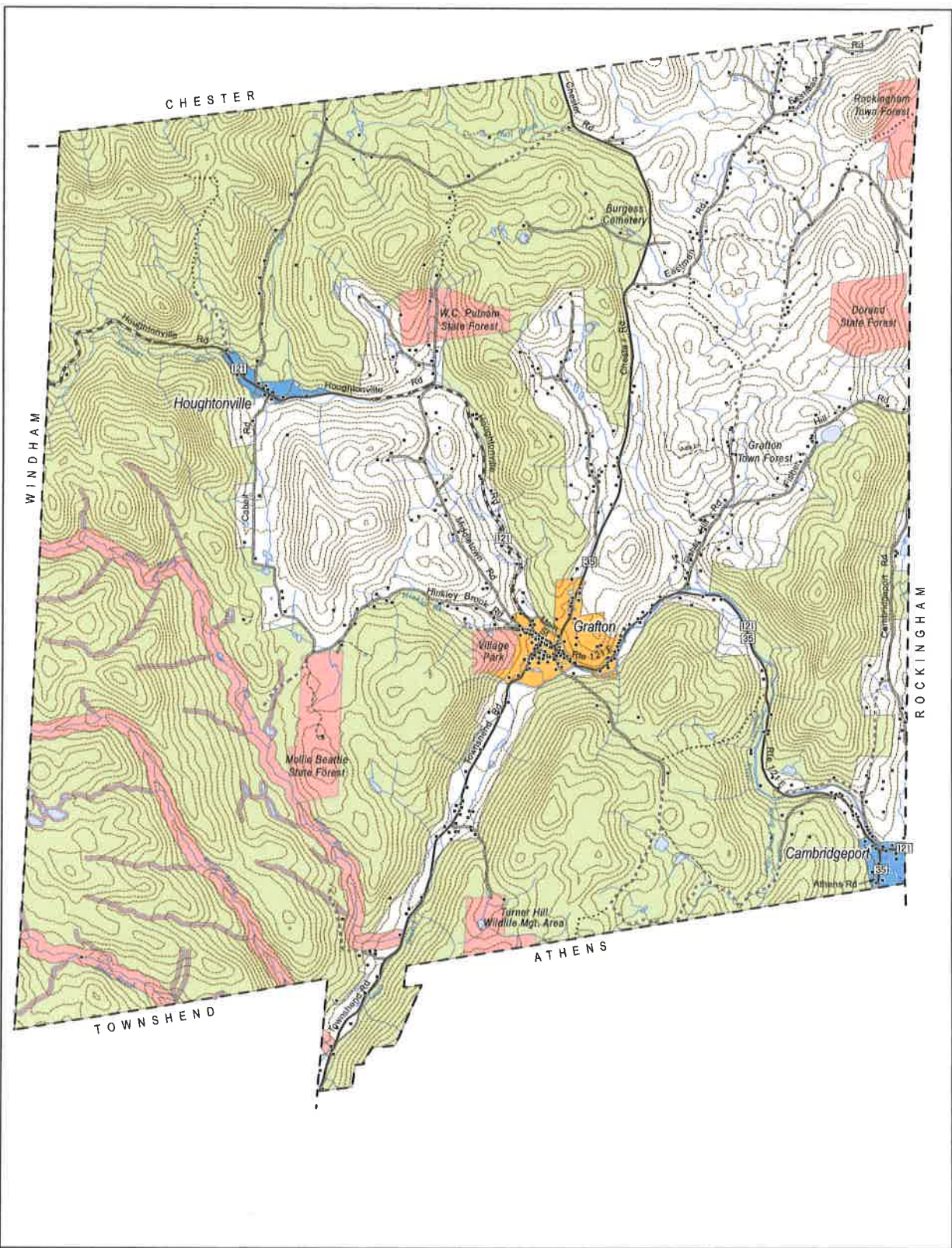
Existing wind from the Vermont Energy Atlas, developed from Certificates of Public Good. They may correspond to the address of the certificate holder and not the actual location of the installation.

- 5 acres
- 10 acres
- 50 acres
- 100 acres

- Substations
- 3 Phase Power Lines
- Transmission Lines

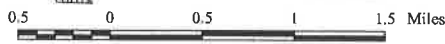


April 2017



# Proposed Land Use Town of Grafton, Vt.

November 2018



1:42,000

- structure
- Critical resource area
- PLU2019**
- resource lands
- rural residential
- village
- Productive rural

- paved roads
- unpaved roads
- Stream
- Pond or river