

# AAFM ‘Critical Resource Areas’ Analysis

## dr req 19-0040 Act 250

*GIS Layers & Methodology*

### Layers – CRA

#### River Corridors

VCGI: <http://geodata.vermont.gov/datasets/VTANR::river-corridors-jan-2-2015>

#### Elevation

VCGI: <http://geodata.vermont.gov/datasets/vt-100-ft-contour-lines-generated-from-usgs-30-meter-ned-dem>

100 ft contour lines derived from 30m DEM

Select “CONTOUR = 2000”, convert to polygon (area includes  $\geq$  2000 ft elevation).

#### Wetlands\*

VCGI: <http://geodata.vermont.gov/datasets/VTANR::vswi-wetlands-class-layer>

#### Hydric Soils\*

VCGI: <http://geodata.vermont.gov/datasets/vt-data-nrcs-soil-survey-units>

Merge all county soil layers together, select “HYDRIC = Yes”

**\*\*Merge** wetlands and hydric soil layers together to include all of either layer.

#### Slope\*\*

VCGI: <http://geodata.vermont.gov/datasets/vt-usgs-ned-slope-10-meter-statewide>

10m DEM-derived slope (not from soil polygons); select  $\geq$  15 % slope

#### Shallow Depth to Bedrock\*\*

VCGI: <http://geodata.vermont.gov/datasets/vt-data-nrcs-soil-survey-units>

Merge all county soil layers together, select “ROCKSHALLOW  $\leq$  20”

**\*\*Intersect** slope and shallow depth to bedrock layers together (only includes areas that are *both* greater than or equal to 15% slope *and* less than or equal to 20 inches shallow depth to bedrock).

**Critical Resource Area (CRA)** layer created by merging the following layers together:

- River Corridors
- Wetlands (Class I & II)
- Elevation (greater than or equal to 2000 ft)
- Slope (greater than or equal to 15%) *and* Shallow Depth to Bedrock (less than or equal to 20 inches)

For analysis, CRA layer intersected with agricultural land, farmstead numbers and farmstead areas.

## **Layers – Other**

### **State Land**

VCGI: <http://geodata.vermont.gov/datasets/vt-data-state-boundary>

State Land is area of state boundary minus surface water area within the state boundary.

### **Surface Water**

VCGI: <http://geodata.vermont.gov/datasets/vt-hydrography-dataset-cartographic-extract-polygons>

Clipped to only include surface water area within state boundary.

### **Agricultural Land**

NRCS/FSA: 2008 CLU Layer

Merge all county CLU layers, select “CLUCLSCD = 2 or 10” (2 = Cropland, 10 = Other Agriculture – includes pasture and farmsteads)

### **Farm Points**

VAAFM WQ Inspection Database – all SFO, CSFO, MFO, LFO facilities

### **Farmsteads (area)**

VAAFM WQ Inspection Database:

- LFO & MFO – 100 ft buffer around all farm structures – footprint (average 10 ac)
- CSFO & SFO – 200 ft buffer from facility point – creates 3 ac footprint
- Footprints from all farm sizes merged into one layer