

How to create a Soil Map for your Envirothon school team using the NRCS Web Soil Survey (version 2.3)

- Log on to Web Soil Survey: <http://websoilsurvey.nrcs.usda.gov/app/>
- Click the green **Start WSS** button to open Web Soil Survey, version 2.3.

Tab 1. Area of Interest (AOI)

- **Quick Navigation** >> click on **State and County** – choose Vermont as State and your county of interest in the drop-down menu. All Vermont counties except Essex County are accessible through WSS. For Essex County soils info, please contact the St. Johnsbury NRCS office @ 802-748-2641, x. 111, for assistance.
- Click **View** to get the county shown on the Area of Interest Interactive Map on right side of screen. A basic map of the county will appear, with major roads and water bodies shown.
- With the **Zoom In** button active (this button looks like a magnifying glass with a plus sign on it), draw a box around the general part of the county you are interested in by holding down your mouse button and enlarging the boxed area. You can repeat this step several times to get to the point where the property you are interested in appears in the map window. An airphoto background will appear with the map. Note: You can also try the **Navigate by Address** option.
- To delineate your Area of Interest, click on one of the two **AOI** buttons on the map toolbar. The **AOI** button showing a red box will delineate a rectangular area. The **AOI** button showing a red multi-sided polygon will delineate an irregularly-shaped area – with this, you must continue clicking at each corner and double-click at the point where you started to close the polygon.
- Once you have delineated your Area of Interest, the interactive map will zoom to show the area, hatched in blue. On the left side of the screen, it will tell you the acreage of the area you have delineated. If your Area of Interest covers more than one county, the acreage will be listed separately by county. You can give your Area of Interest a Name if you desire.
- If you are not happy with the Area of Interest as shown, click the **Clear AOI** button on the right side of the screen and use the **AOI** buttons to re-delineate it. Repeat as many times as needed. When you are satisfied with your Area of Interest, you're ready to produce the Soil Map.

Tab 2. Soil Map

- Click on the **Soil Map** tab on top of the screen, in between the **Area of Interest** tab and the **Soil Data Explorer** tab. This will generate the soil map for the Area of Interest (from here on referred to as AOI) you have delineated. Depending on server traffic, this may take a few minutes. The screen will show the Soil Map on the right and the Map Unit Legend on the left, with soil map unit symbols and names, and their acreage and percentage within the AOI.
- When viewing the soil map on-screen, some soil polygons may not show a map unit symbol. This is due to the scale of the map on-screen. Not to worry – the symbols are there. You can enlarge the scale on-screen, or they will show up when you print a copy of the map.
- At this point, you can print out a copy of the soil map, save it to your computer, save it to the Shopping Cart, or continue on to the Soil Data Explorer section.
- To print a copy of the soil map or to save it to your computer, click the **Printable Version** button. A small window will open – if you wish to give your map a custom name (like your name or your client's name), click the **Custom Subtitle** button and type the name you wish. Then click the **View** button. This will generate a new view of the soil map and associated information as it will appear printed and display it on-screen. This multi-page file is an Adobe® pdf file. Using the toolbar, you can then print the map or save it to your computer. This map can also be emailed, but first has to be saved to your computer as a pdf file.

- After printing or saving the soil map file, close that window by clicking on the red X. You will still have the web-based soil map page open.
- This completes the Soil Map generation process.

Tab 3. Soil Data Explorer

- Soil Data Explorer can be used to generate a report on a specific topic or soil property for your AOI.
- Click on the **Soil Data Explorer** tab on top of the screen to the right of the **Soil Map** tab.
- Under Soil Data Explorer, you'll see 5 new tabs. Feel free to browse them all (however, the Ecological Site Descriptions tab is not active at this time).
- **For a good guide to soil permeability related to groundwater, see this report:**
 - **Soil Properties and Qualities >> Saturated Hydraulic Conductivity (Ksat). Learn what Ksat stands for – it's a good way of talking about how permeable soils are for water movement.**
- For more help with this option, please contact one of the soil scientists listed at the bottom of this page.

Tab 4. Shopping Cart

- The **Shopping Cart** tab/function will generate a customized soil resource report similar to a site-specific soil survey report for your Area of Interest. The details of its use are not covered in this document. Note that the number of pages of the report can be rather lengthy.

If you have questions about Web Soil Survey, please contact:

VT Soil Database Manager (martha.stuart@vt.usda.gov, 802-295-7942, x.28) or

VT Soil Resource Specialist (thomas.villars@vt.usda.gov, 802-295-7942, x. 24)
for more information.