

## Using Web Soil Survey to Estimate Site Biomass and Composition

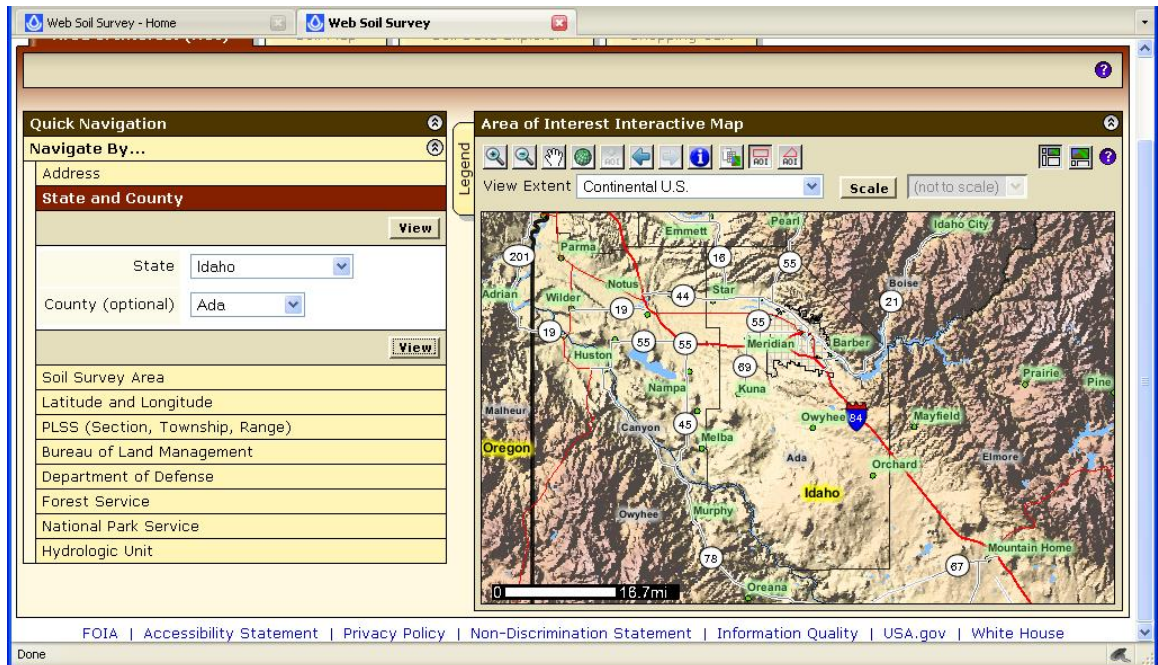
1. Start Web Soil Survey (WSS)  
(<http://websoilsurvey.nrcs.usda.gov/app/>)
2. Click on "Start WSS"
3. **Find Area of Interest (AOI)** – your instructor may ask you to find a specific area OR you may be asked to choose one on your own which you are interested in. (NOTE: not all areas in the database have soil data available in Web Soil Survey. You may have to navigate to a different AOI if no data is available).







There are several ways to navigate in WSS. An example is given below.

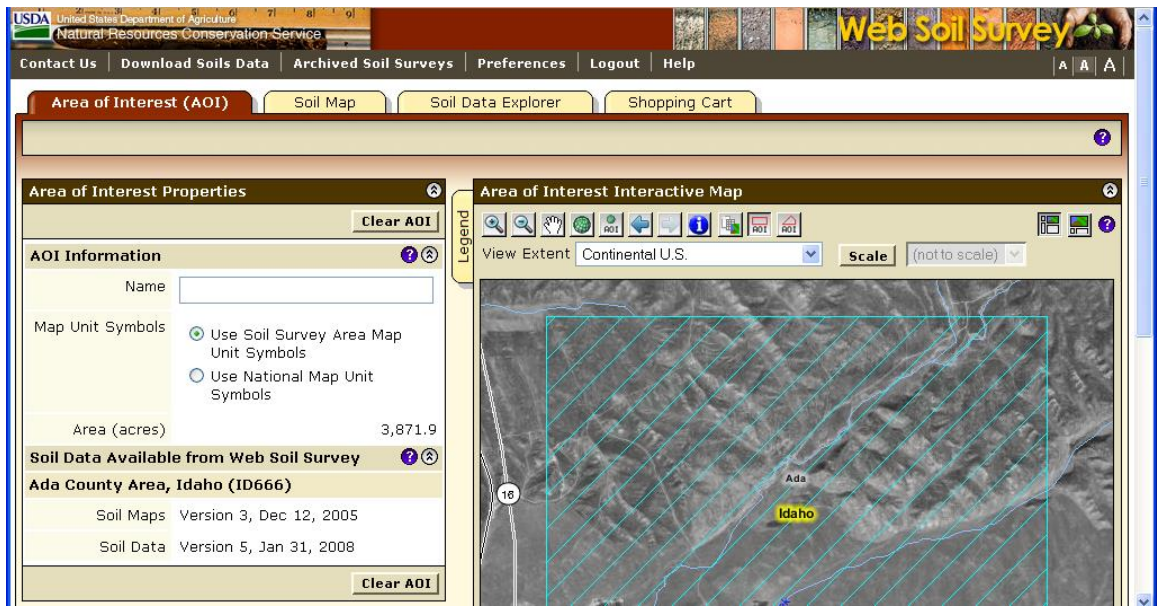
### FOR EXAMPLE:

- a. Navigate by "State and County" on left hand menu
- b. Type in Idaho and then select county (example "Ada")
- c. Click "view" (example of results below)

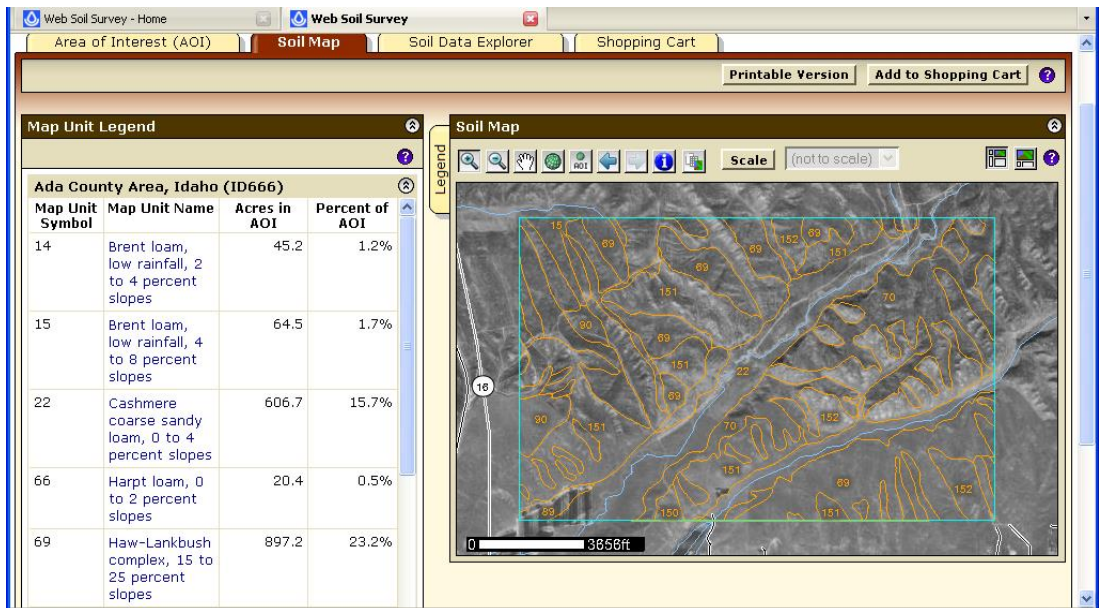


- d. Zoom in  to any specific area of interest (may need to zoom multiple times) and use  to center or move the map.
  - Zoom until road names and landmarks show up on map.
- e. Use AOI Rectangle  or Polygon  on Map Legend to select an area. Your AOI should be less than 1000 acres in size.
- f. Once an AOI is selected, an "area of interest properties" box should appear on the left and the selected area should be boxed and lined.
- g. **Record the size** of your AOI found in the "area of interest properties" box.

Activity (internet) – Student Handout



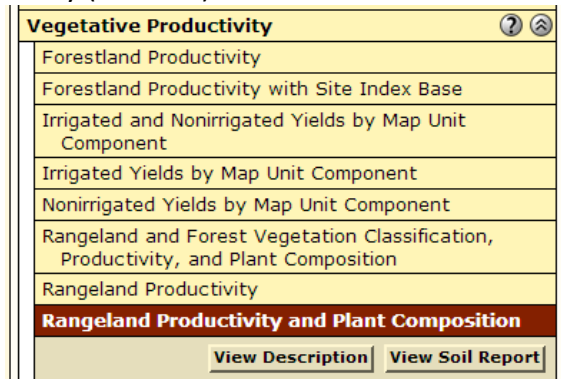
4. Click on the **"Soil Map"** tab (top of page)
  - a. This gives you a list of the different types of soils present within your selected soil area, along with the percentages of each soil present. By clicking on any of the soil types (map unit name) you can receive the properties and information on that one soil.
  - b. **NOTE which soils are the most prevalent.**



5. Click on the **"Soil Data Explorer"** tab
  - a. This gives you 5 sub-tabs to select from: Intro to Soils, Suitabilities and Limitations for Use, Soil Properties and Qualities, Ecological Site Assessment, and Soil Reports.

Activity (internet) – Student Handout

6. Click on the "Soil Reports" tab. → click on "Vegetative Productivity" in the menu on the left → click on "Rangeland Productivity and Plant Composition" → click on "View Soil Report" button. Scroll down the page as the report appears below the map.



7. **Soil Report Output** -- This provides you with the soil map unit names, ecological sites, total dry-weight productions (lbs/acre), characteristic vegetation, and rangeland composition percentages.

Ada County Area, Idaho						
Map unit symbol and soil name	Ecological site	Total dry-weight production			Characteristic vegetation	Rangeland composition
		Favorable year <i>Lb/ac</i>	Normal year <i>Lb/ac</i>	Unfavorable year <i>Lb/ac</i>		
14—Brent loam, low rainfall, 2 to 4 percent slopes						<i>Pct</i>
Brent, low rainfall	Loamy 8-12 Artrw8/pssps-acth7	800	600	400	Bluebunch wheatgrass	35
					Big sagebrush	20
					Miscellaneous perennial grasses	10
					Indian ricegrass	5
					Antelope bitterbrush	5
					Miscellaneous perennial forbs	5
					Thurber	5

8. **Your Assignment** – Bring answers to class on Friday, October 18 (Test day)
  - a. Write a description of your area of interest such as state, county, distance and direction from nearby towns or roads). Include the size of your AOI in acres (from step 3G).
    - In the top menu bar, click on the “Link” tab. This provides a permanent link to your area of interest. Copy and paste in the permanent link to your AOI and include in your area description.
  - b. list the three most prevalent in your AOI
  - c. Use the Web Soil Survey report to determine the average dry-weight production **for the most prevalent soil types** Record Production for:
    - Favorable growing conditions \_\_\_\_\_
    - Normal growing conditions \_\_\_\_\_
    - Unfavorable growing conditions \_\_\_\_\_
  - d. Explore and describe the value of the site for a specific resource or use such as farming, construction, recreation, wildlife or livestock grazing. Choose 1 resource or use and describe what the web soils survey tells you.