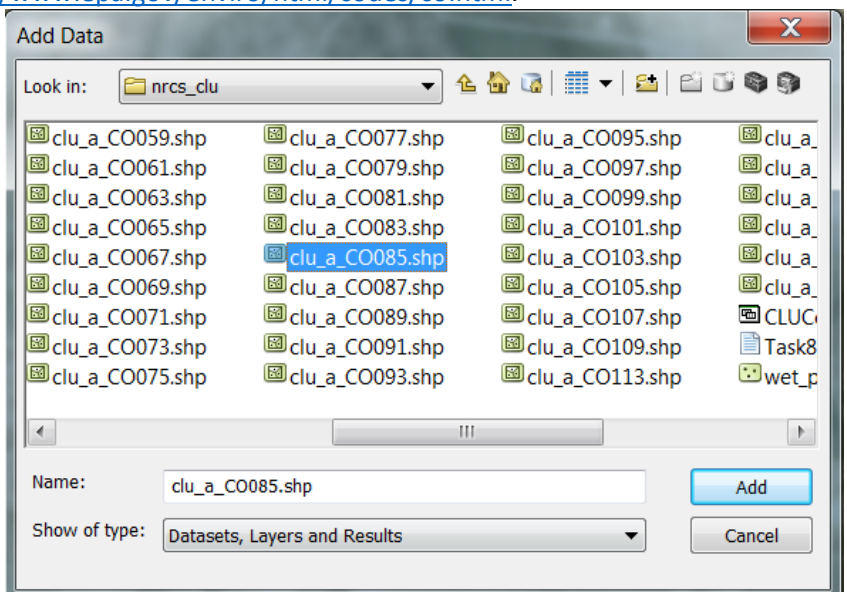
Soil Data 201
February 19th, 2015 or recorded webinar at later date
Link to the video
(https://connect16.uc.att.com/usda/meet/?RecordingKey=A2129E7E-38B7-47AD-84AE-70F082401BD9)

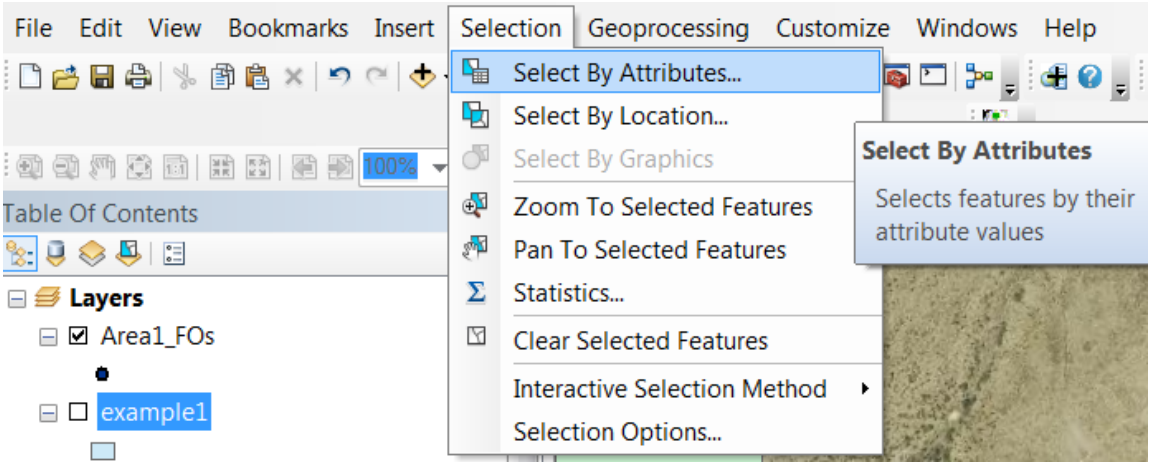
Exercise 1- Importing an Area of Interest (AOI) into Web Soil Survey (WSS)
Steps:

1. Open ArcMap directly or via Customer Toolkit

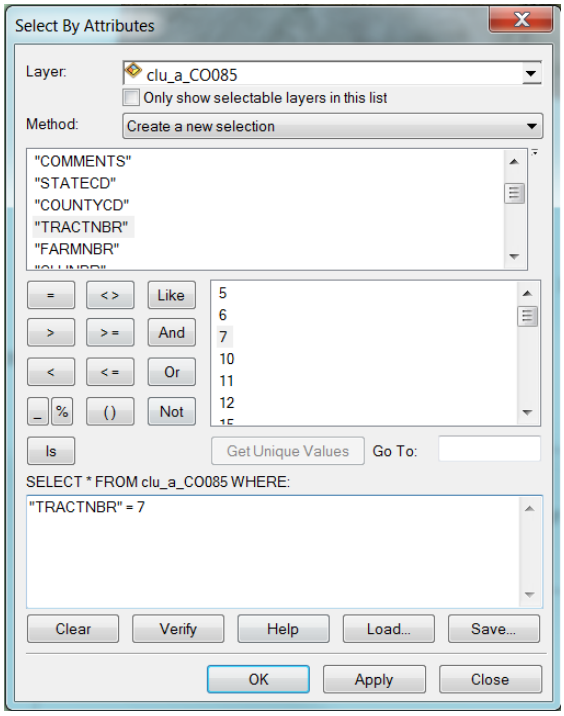
2. Click  and browse to F:\\geodata\common_land_unit\nrcs folders to add CLU layer for your county. A list of County FIPS codes can be found at http://www.epa.gov/enviro/html/codes/co.html.



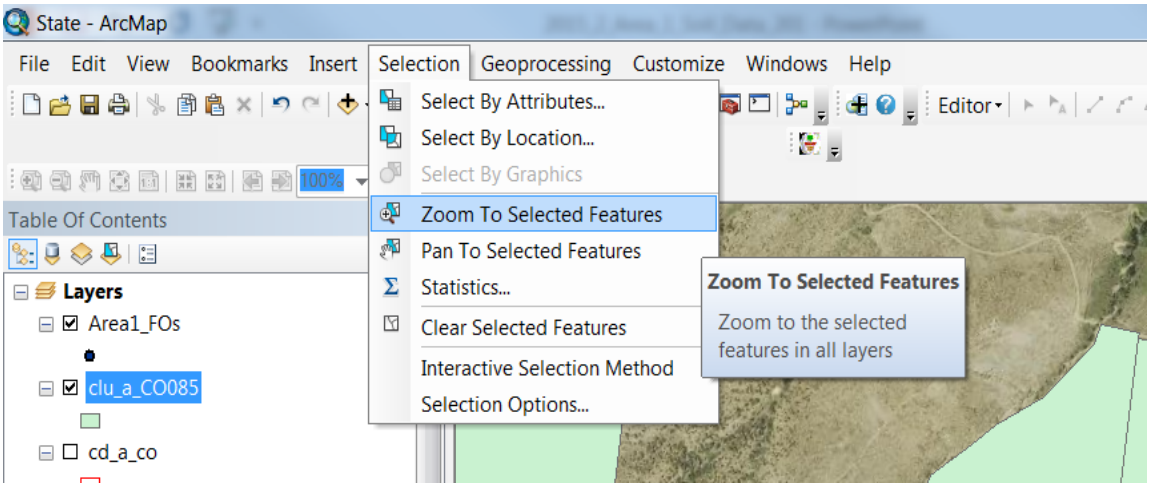
3. In ArcMap, select tracts or fields of interest.
   a. Go to Selection- Select by Attribute



b. Select the CLU_a_COxxx layer. Double click on “TRACTNBR”, click on “=“, and enter tract number. Then click “ok”.
NOTE: If you want tract 7 and field 5, your query would be "TRACTNBR" = 7 AND "CLUNBR" = 5.

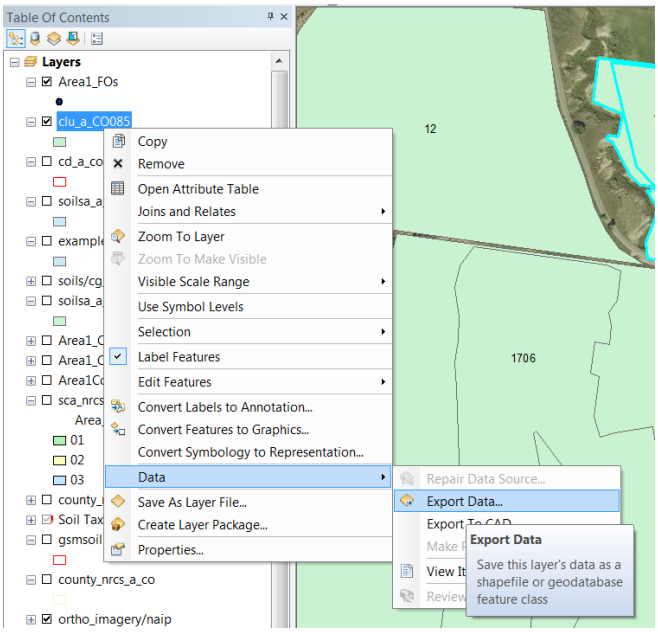


4. Go to Selection- Zoom to Selected Features

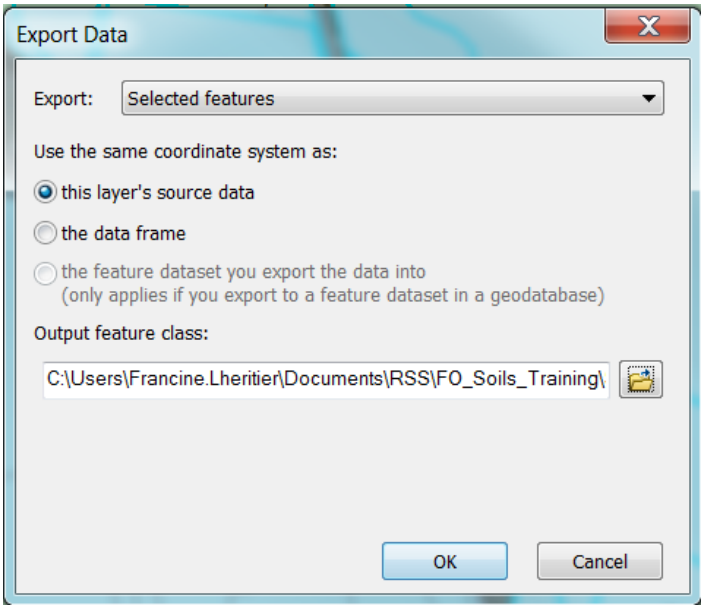


5. Make sure the selected tracts and fields represent your area of interest.

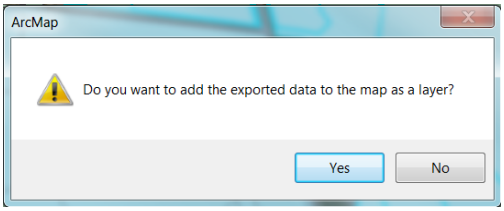
6. In the table of contents, right click on the CLU layer. Select Data- Export Data.



7. Choose “Selected features”. Browse to location to save and name the shapefile. Click OK.

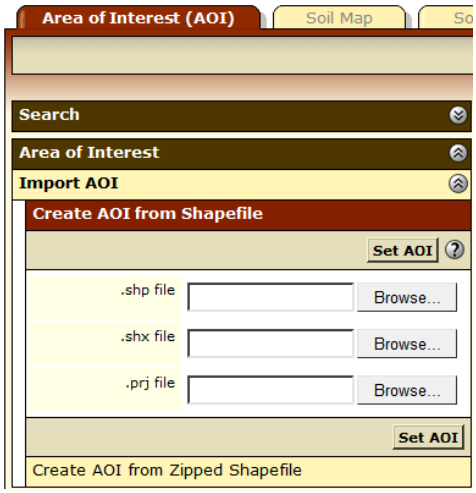


8. Click yes.

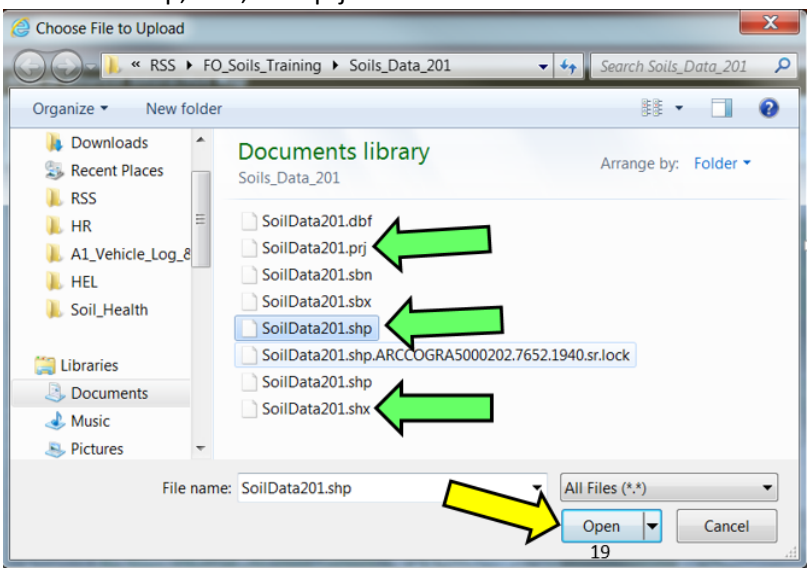


9. Open Web Soil Survey (*http://websoilsurvey.nrcs.usda.gov/*) and click on Start WSS.

10. On AOI Tab, click on "Import AOI" and then "Create AOI from Shapefile".

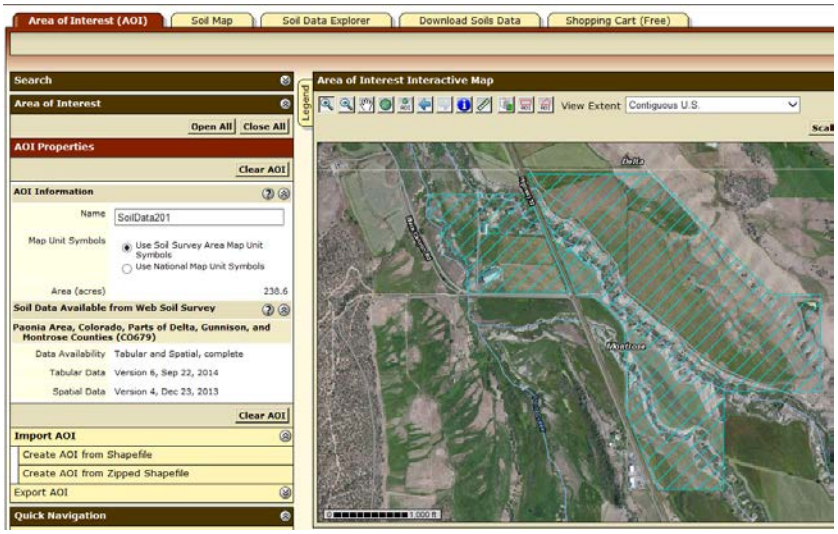


11. Browse to .shp, .shx, and .prj files.



12. Click open and Set AOI

13. Check AOI correct. If AOI not correct, click on the “Clear AOI” button.
    NOTE: Two polygons make up my AOI and can be up to 100,000 acres.
    NOTE: Can also Export AOI!



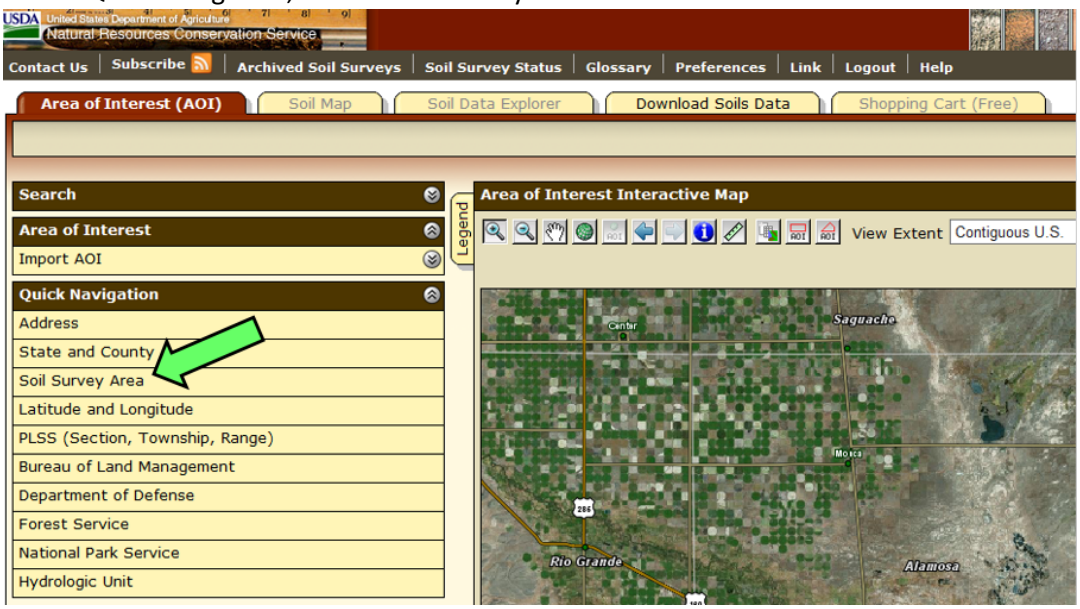
14. As shown in the Soil Data 101 webinar (https://connect16.uc.att.com/usda/meet/?RecordingKey=225D487B-D810-40FB-B608-CB11F26BD0A4), now move across tabs from left to right to explore data and create soil maps and reports.

15. For this exercise, go to the Soil Map tab. Click on the “Printable Version” button.

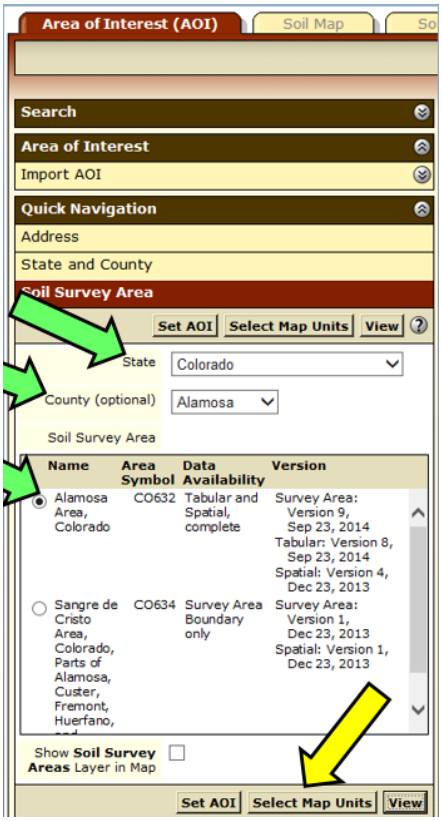
Exercise 2- Generating reports in WSS without an AOI

Steps:

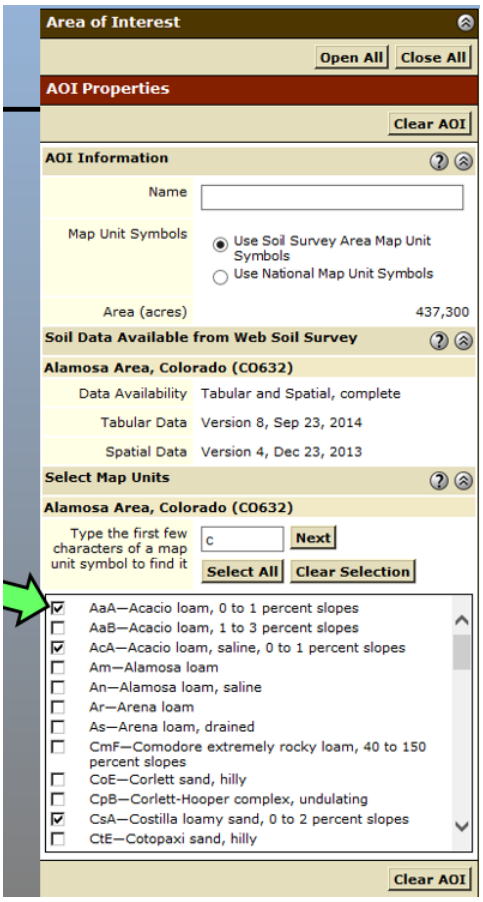
1. Click on the Area of Interest (AOI) Tab of Web Soil Survey.
2. Under Quick Navigation, click on Soil Survey Area.



3. Select State, county, and Soil Survey Area.
4. Click on “Select May Unit” button.



5. Check boxes next to Map Units of interest.



6. Now select the **Soil Data Explorer** tab. From the sub-tabs (Soil Reports, etc.), you will be able to print reports but not soil maps (as there is no AOI selected).

7. For this example, go to the **Soil Reports** tab (the other sub-tabs will work as well).

8. On the left side under the **Soils Reports** Menu, select **AOI Inventory**- **Map Unit Description (Brief, Generated)**.

9. Click on the “View Soil Report” button.

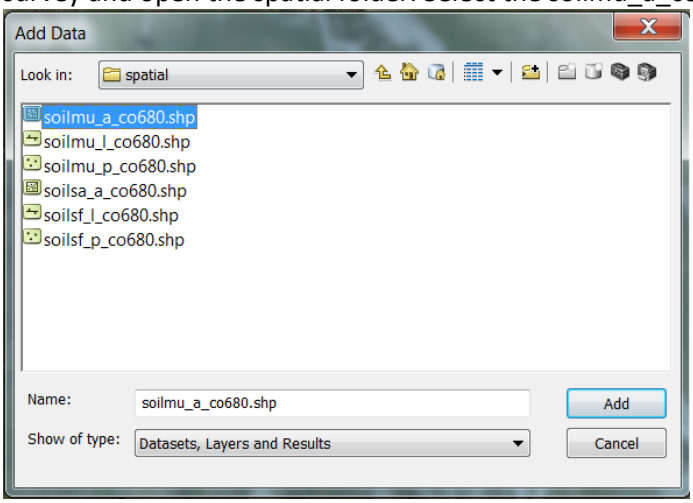
10. For this exercise, click on the “Printable Version” button and save as a pdf.

Exercise 3- Soil Data Viewer Basics

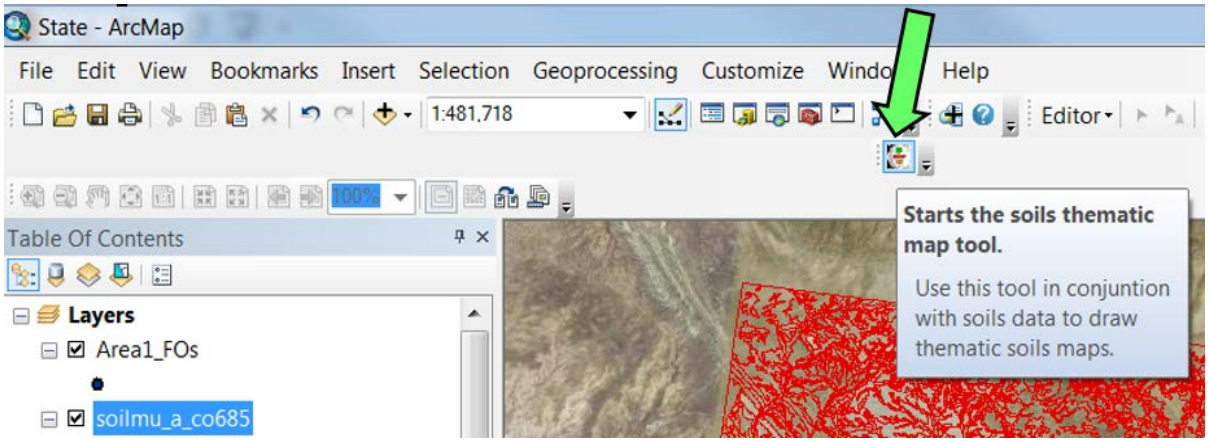
Steps:

1. Open ArcMap directly or via Customer Toolkit.

2. Click  and browse to the F:\\geodata\Soil folders. Locate the folder for the needed soil survey and open the spatial folder. Select the soilmu_a_coxxx.shp file and click “Add”.

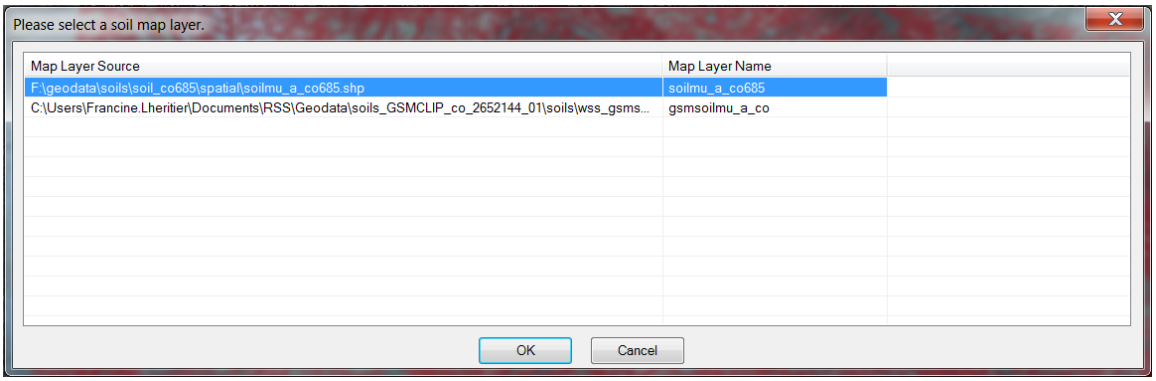


3. Go to Customize- Toolbars and select the Soil Data Viewer toolbar. Then click on the SDV 

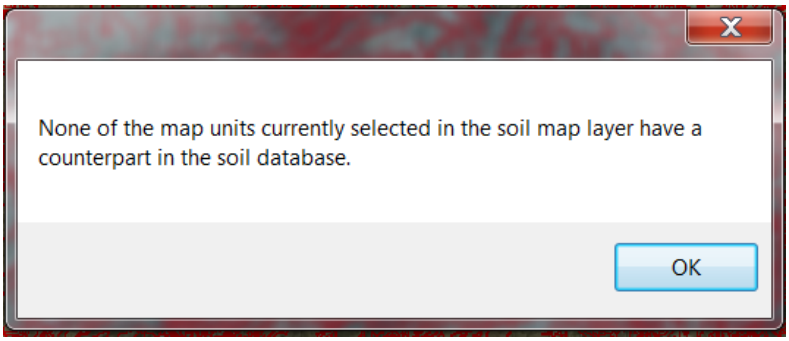


tool.

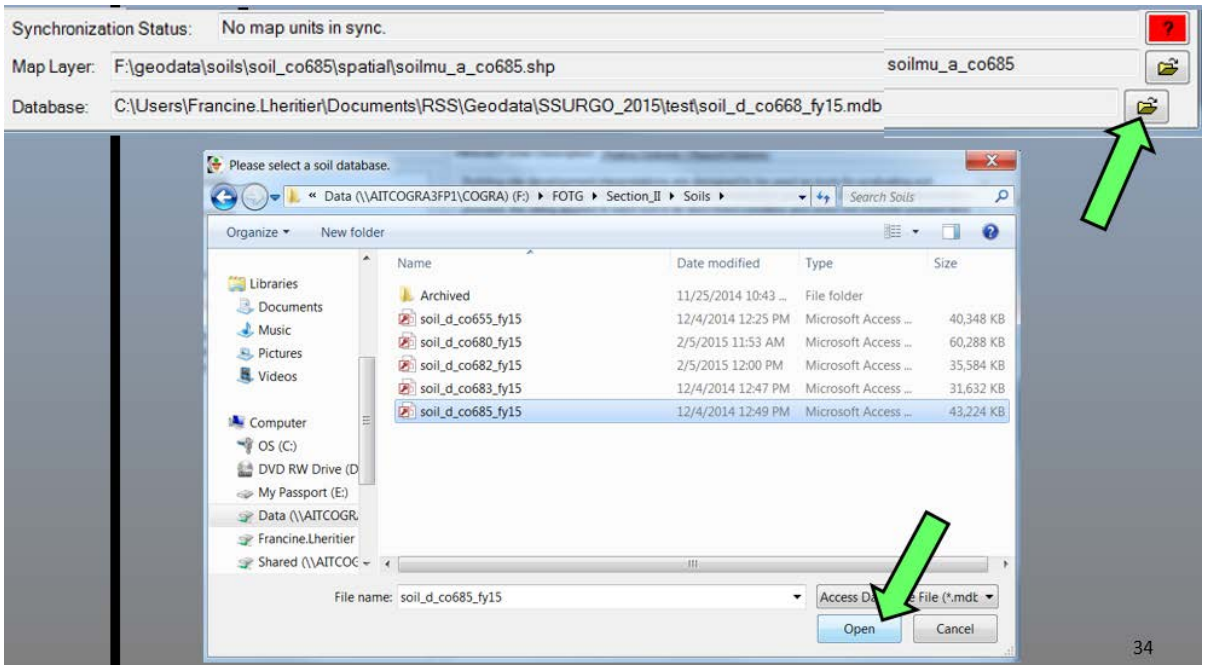
4. Highlight the Soil Map layer and click “Ok”.



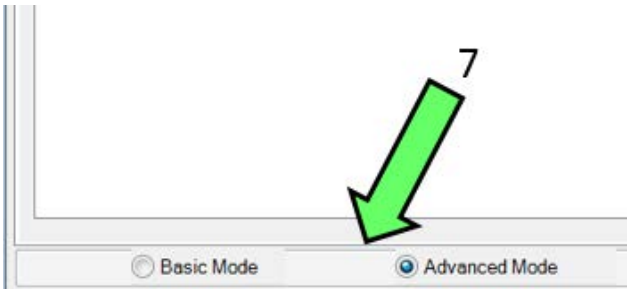
5. If you get this warning, click “OK”.



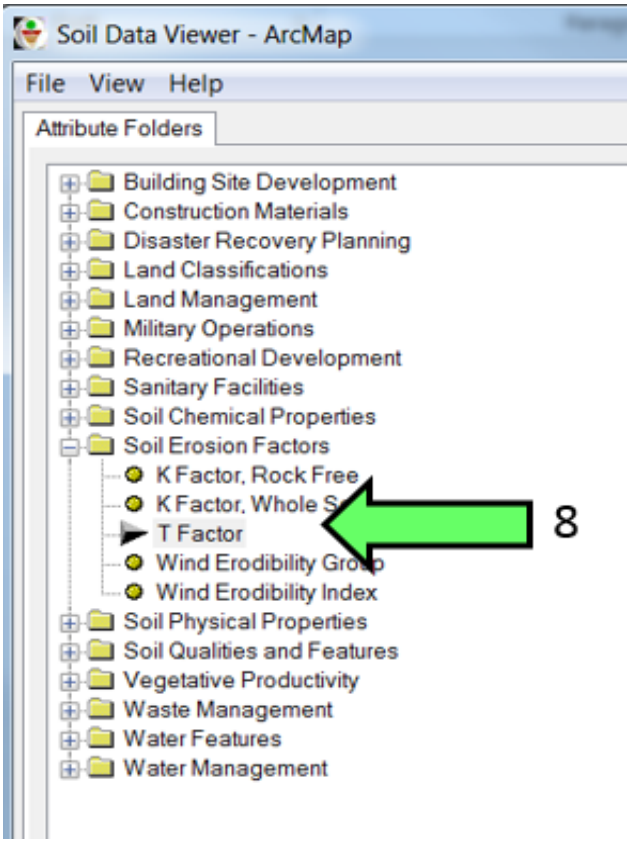
6. Browse to the corresponding SSURGO Access Database at F:\\FOTG\SectionII\Soils and click “Open”.



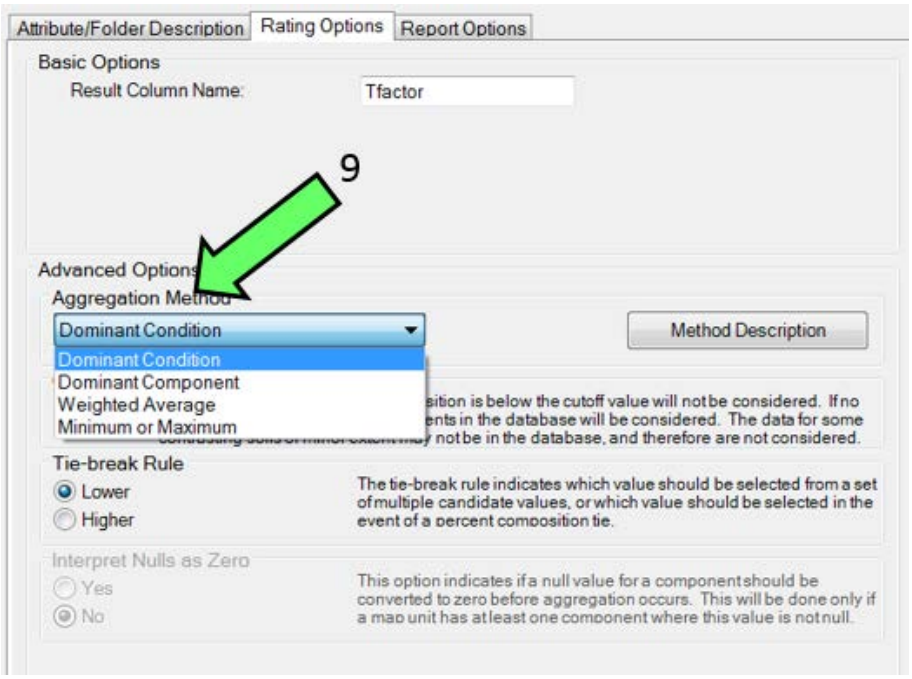
7. Select the radial button next to the advanced or basic mode.



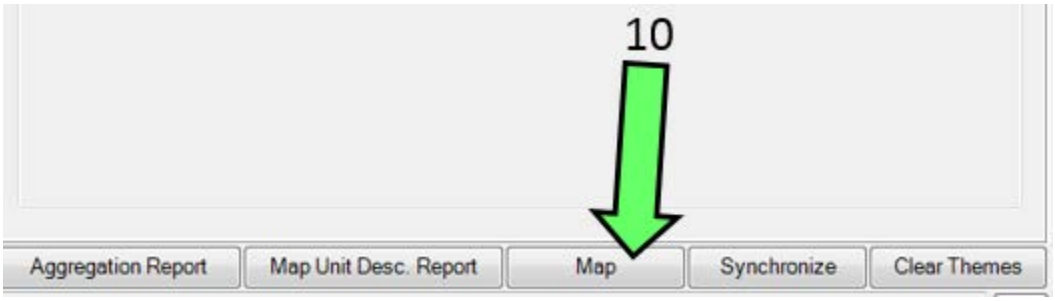
8. Under the Attribute Folders Tab, select the soil property or interpretation of interest. For this exercise, the soil property or interpretation is your choice.



9. Under the Rating Options tab, select the aggregation method.

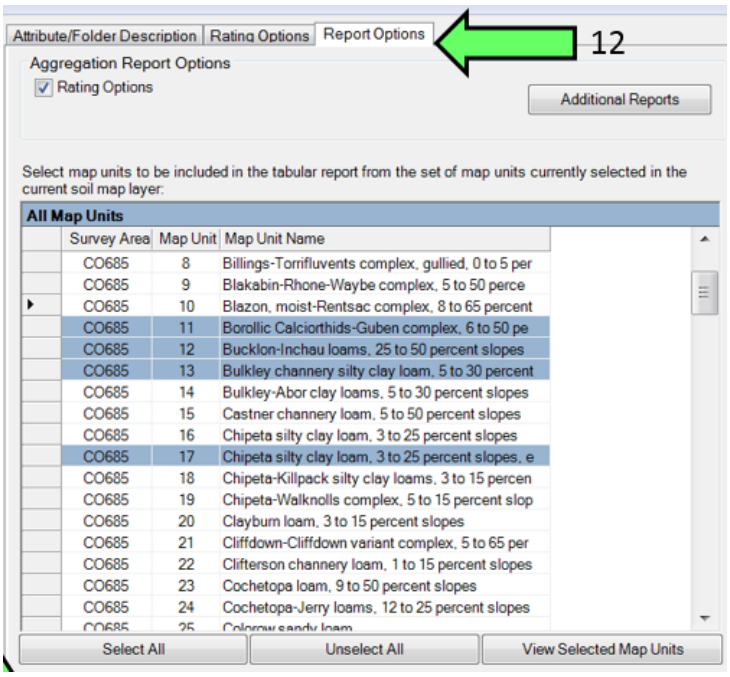


10. Click the “Map” button.

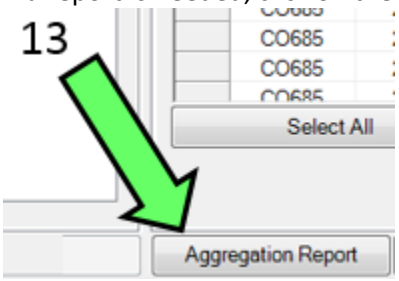


11. View and interpret results

12. Under report options, you can select the map units of interest (if less than the whole legend). To select consecutive map units, use the shift button and a left click. To select non-consecutive map units, use the control button and a left click.



13. If a report is needed, click on the “Aggregation Report” button.



An example aggregation report (in this case, for T factor):

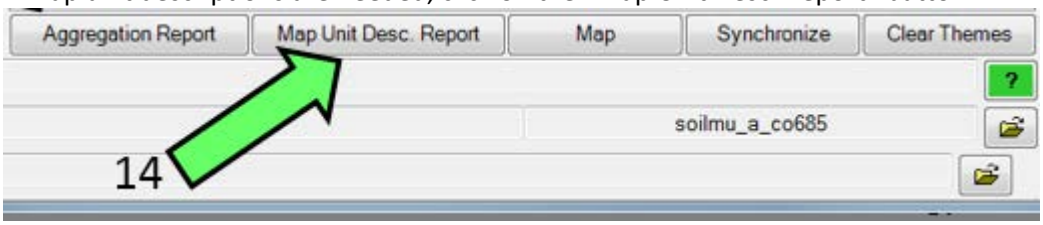
T Factor

Units of Measure: tons per acre per year
Aggregation Method: Dominant Condition
Tie-break Rule: Lower
Interpret Nulls as Zero: No

Rio Blanco County Area, Colorado
Survey Area Version and Date: 10 - 09/22/2014

Map symbol	Map unit name	Rating	Map unit percent
11	Borollic Calciorthids-Guben complex, 6 to 50 percent slopes	5	60
12	Bucklon-Inchau loams, 25 to 50 percent slopes	2	55
13	Bulkley channery silty clay loam, 5 to 30 percent slopes	4	85
17	Chipeta silty clay loam, 3 to 25 percent slopes, eroded	2	85

14. If map unit descriptions are needed, click on the “Map Unit Desc. Report” button.



An example Map Unit Description report:

Map Unit Description

Rio Blanco County Area, Colorado

[Minor map unit components are excluded from this report]

Map unit: 11 - Borollic Calciorthids-Guben complex, 6 to 50 percent slopes

Component: Borollic Calciorthids (60%)

The Borollic Calciorthids component makes up 60 percent of the map unit. Slopes are 25 to 50 percent. This component is on uplands, terraces. The parent material consists of very calcareous, mixed source alluvium and/or glacial outwash. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This component is in the R048AY287CO Stony Foothills ecological site. Nonirrigated land capability classification is 7e. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 38 percent. The soil has a slightly saline horizon within 30 inches of the soil surface.