Using the Web Soil Survey





On-line Woodland Options for Landowners Jennifer Gagnon

- You will learn about soil surveys *in depth* in Module 4
- There are still a few areas in the east that don't have a soil survey – <u>click here to check your property</u>
- If no survey is available, please contact your local <u>Natural</u> <u>Resources Conservation Service (NRCS)office</u> ~ they may be able to map your property
- Hard copies of soil surveys are still available for some locations – check your local NRCS office
- The <u>Web Soil Survey</u> (WSS) is the best place to find your soils data; however, you do need a fast internet connection – dial up probably won't work
- You can also make topo maps and find aerial photos on the WSS, unfortunately, it's not nearly as user-friendly as Google Earth

- Getting started:
 - Go to <u>http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm</u>
 - Click the green button: Start WSS

The simple yet powerful way to access and use soil data.



- If you have a physical address for your property, click "Address" on the left-hand menu under the "Quick Navigation" tab; enter your address; click view
- If you don't have a physical address, click "State and County" on the left-hand menu under the "Quick Navigation" tab; from here you can zoom in to locate your property
- You should see an aerial photo of your property

- This photo may be from a different year than the photos in Google Earth
 - to find the year it was taken, click the "Legend" tab
 - when the legend appears, scroll down to find "Aerial Photography"
 - highlight "Aerial Photography"
 - click the 10 on the top of the photo, then click the photo the information will appear below
 - the WSS photo for my property is from 2/5/17; the latest photo in Google Earth is from 10/26/17



- A nice feature of WSS is that you can set the scale of the maps
 - Click the "Scale" button over the photo and follow the instructions to calibrate your computer screen
 - Set the scale to 1:24000
 - Click on the "Legend" tab
 - Scroll down and select "Topographic Map"
- This topo map should be the same as the one in Google Earth
- You can zoom in and out just note the changes in scale



- Okay let's get to the soils!
- Re-select "Aerial Photography" from the "Legend" tab
- Using the tools in the "Area of Interest Interactive Map" zoom in enough so you can see your property boundaries
- Select one of the two "AOI" (Area of Interest) boxes at the top of the photo one tool works better for irregular borders
- Use this tool to outline your property _



- Double click to close your polygon
- If you need to start over, click "Clear AOI" on the lefthand menu (under "Area of Interest Properties"

- Look under "AOI Information" to see the total acres in your AOI – should be close to your actual acreage
- At the top of the page, click the "Soil Map" tab





- To find out about your soil types refer to the "Map Unit Legend" on the left-hand side of your screen
- Match the map unit symbol (i.e., 3D) to the map unit name
- The "Map Unit Legend" will tell you how many acres (and the %) in your AOI have a particular soil and the name of your soil series
- Under the "Soil Data Explorer" tab, select "Vegetative Productivity" from the left-hand menu to find out the forest productivity on a particular soil for many common tree species
- Take some time and explore the other available information
- If interested, the "Intro to Soils" tab will provide you with good background information on soils, how they are classified and mapped
 - Much of this will also be covered in Module 4

- On my property, 3D is a Berks-Lowell-Rayne complex, occurring on 15-25% slopes; 12.4 acres of my AOI are this soil type
- This soil type has between 117-185 frost free days (i.e. growing season)
- Occurs at elevations between 1700 and 3000 feet
- Has a depth of 20 to 40"
- Site index for growing northern red oak is 70 (this is a measure of site productivity – you'll learn more about this in the class)
- This will give you a real good feel for the potential of your soils (and hopefully an appreciation that soils are more than just dirt!)



- For a more advanced tutorial, visit: <u>http://websoilsurvey.nrcs.usda.gov/app/Help/WSS_HomePag_e_HowTo.pdf</u>
- So, you may be thinking to yourself, why would I use Google Earth Pro when I can get all the information I need, to scale, here on the WSS?
- Well, for one thing, you may have noticed a big difference in speed – Google Earth Pro is much smoother and faster
- And, for another, Google Earth Pro has more aerial photos, including historic ones
- But, the choice is yours ~ use what you are comfortable with

- If you are a Smart Phone or Tablet user, there is a free App version of the WSS available
- This App does not have all the functionality the website does
- The App is able to display the soil type under your feet
- You can use this App to create your own soils map
- Search either in the iTunes Store or Google Play for: Soilweb (one word)





Soil in New Mexico





A prairie soil

Soil in Florida