

**ACT PRESENTATION 5
WEB SOIL SURVEY AND SOIL
CLASSIFICATION INFORMATION
OCTOBER 2012**

**Proper use of the soil surveys in the
OSTDS Program**

*David Hammonds, Environmental Manager
Florida Department of Health
Division of Disease Control and Health Protection
Bureau of Environmental Health
Onsite Sewage Programs
850-245-4570*



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APRIL 2012**

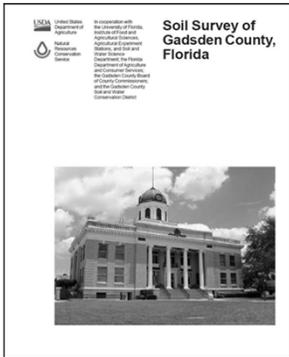
**Proper use of the soil surveys in the
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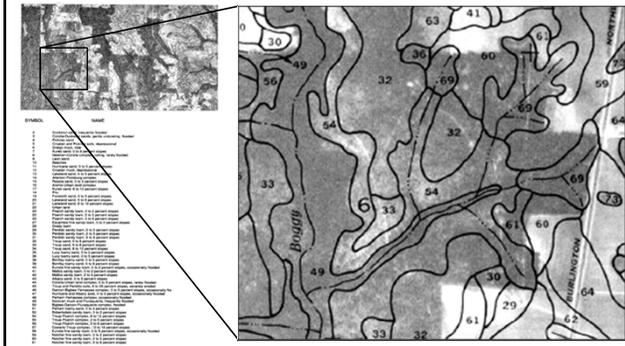
**Where do you find information on
soils?**

**USDA NRCS
WEB SOIL SURVEY
LEGACY SOIL SURVEYS (BOOKS)**

Soil Survey (Legacy Documents)



Soil Map from a Published Soil Survey



Soil Survey

- One for each county
- Format: paper, pdf, GIS, Web
- Paper: most are out of print and hard to find (but very useful)
- pdf: a digital replica of the paper, but only for a few counties
- GIS: geo data layers and attribute tables for use in GIS software
- WSS: (web soil survey) a website delivering the GIS data through a web browser so anyone can use it (more later)



Soil Survey

- Excellent for planning and recon
- Soil survey not meant for field-scale
- Cannot be used for on-site delineation due to issues of scale and accuracy
- Therefore must use soil indicators for on-site delineation
- Excellent for field use, especially when you are learning and find a soil other than what is actually mapped.

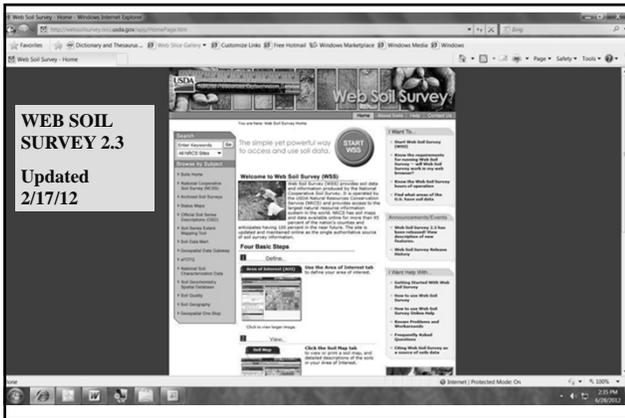


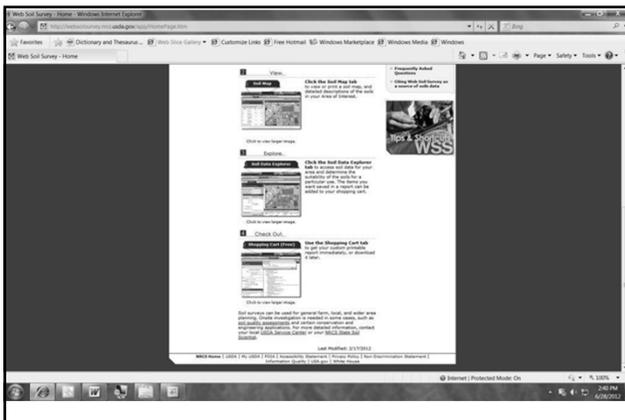
Using Web Soil Survey (WSS)

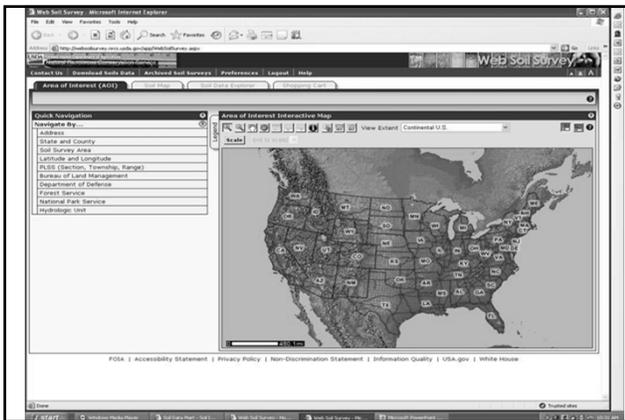
- Now the official soil survey
- Replaces traditional paper copies of soil survey reports
- Most soil surveys in US are available
- Additional interpretations available
- Interpretive tables refined and presented in new format
- Designed for parcels or projects – not entire county

New Web Soil Survey 2.3

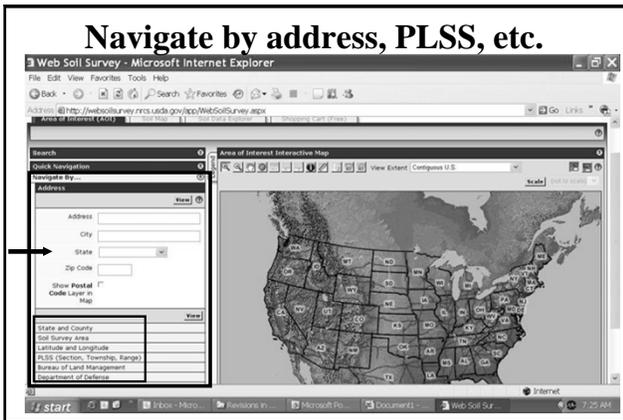
- Newest version of WSS
- Has new features
- How to use the new WSS:
http://websoilsurvey.nrcs.usda.gov/app/Help/WSS_HomePage_HowTo.pdf



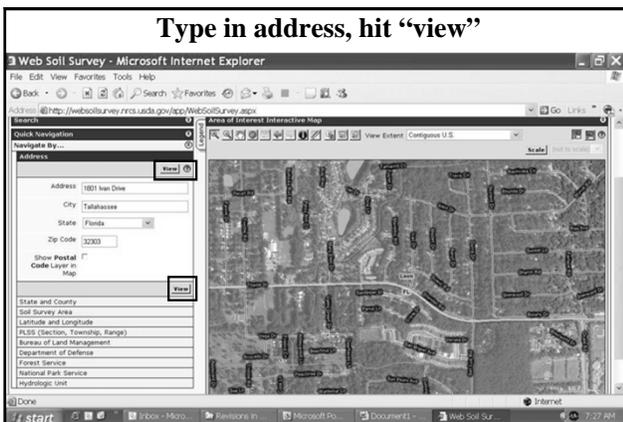




Navigate by address, PLSS, etc.



Type in address, hit "view"



**Then begin navigation by
Area of Interest (AOI)**

How is this done?

This is how-----

- Several ways to navigate to AOI
 - Quick Navigation Options
 - Magnifying Tool
- Two ways to define AOI
 - Rectangle
 - Polygon
- Limited to 10,000 acres in size

Soil Map

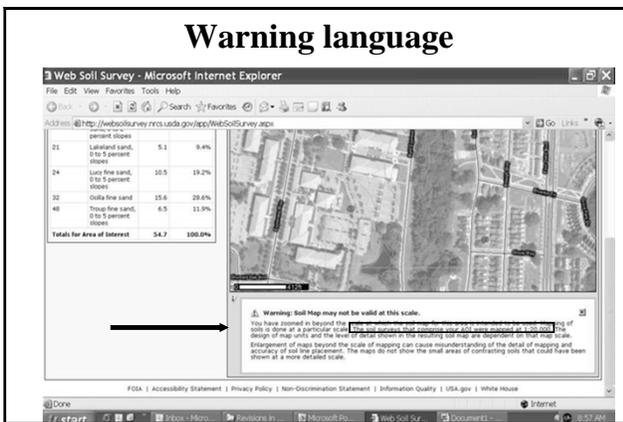
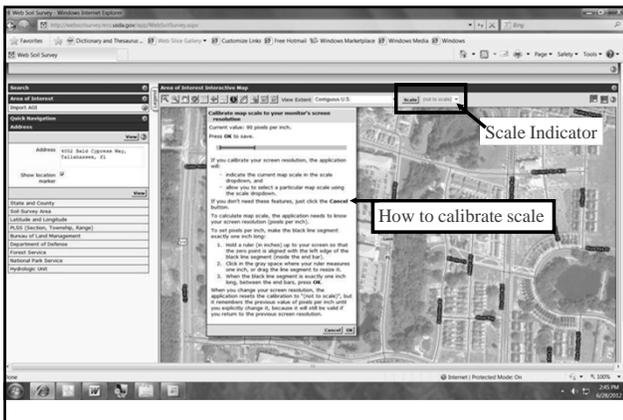
- Only available if AOI is defined
- Soil Map tab will not activate until AOI is defined
- You will forget to define AOI
- You will think WSS does not work
- You will (finally) realize you did not define your AOI

Don't zoom in on a single small parcel!!

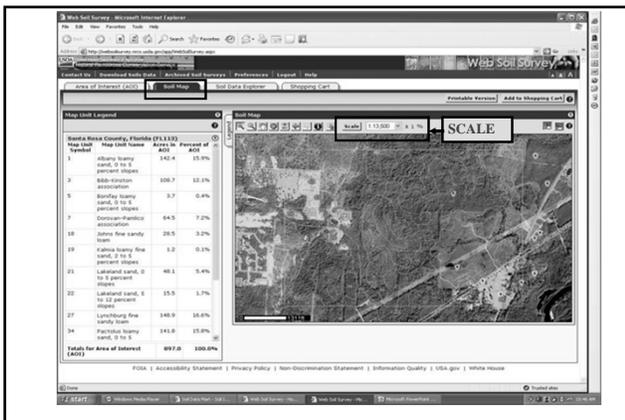
- Make a fairly large AOI with your specific target area in the middle. This allows observation of the surrounding soil relationships.
- WATCH THE SCALE! There is a warning that shows up when the scale gets too large. Reduce scale to what the warning tells you the area was originally mapped at (or close to it).

Calibrate Scale on WSS

Click on Scale Button and follow directions.



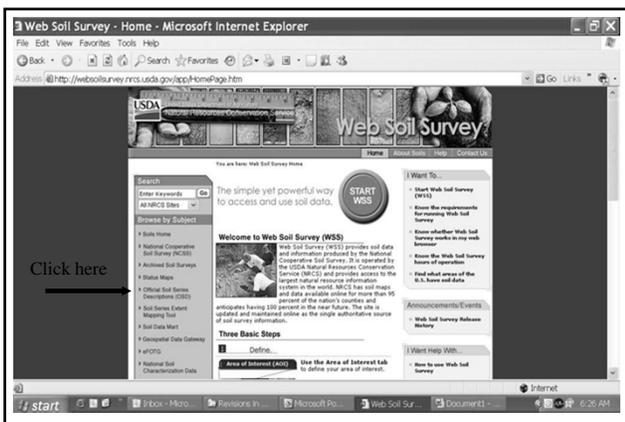
What you see after you make your Area of Interest and click on the Soil Map Tab (next slide)

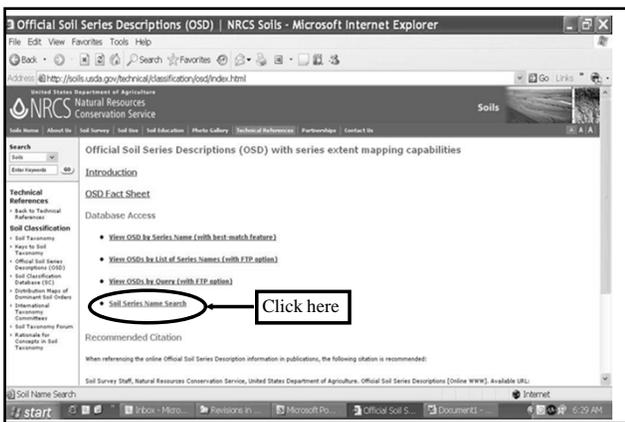


Notice the left side of the previous screen

- This information is the types and amounts of soil (and water) that is included in your Area of Interest, including the acreage mapped in the AOI. Can be up to 10,000 acres in total.
- If you click on a map unit name, it will give you the following information.

This information is not that helpful for what we do, as it is the information from the map unit description. We need to access the current Classification information. Where do you find this?





SAVE THIS TO "FAVORITES"

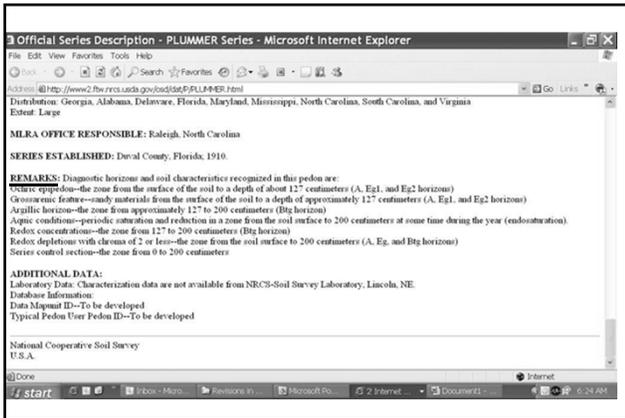


Type in the name of the soil, click "Process"



This is what you get. Click on "View Description"





Soils Mapped by Counties

- Soils are mapped for each county in Florida
- A minimum amount of soil must be found in the county for it to be mapped in the county.
- Just because a soil is not actually mapped in the county DOES NOT mean that the soil cannot be found there (assuming same temperature region).
- Therefore you may find a soil (or be given a soil name) that you do not recognize as mapped in the county.
- Look name up using the Official Soils Series Description to find out more about the soil.

QUESTIONS???

VEGETATION AND SOILS



VEGETATION AND SOILS

There is an intimate relationship between soil type and vegetation type. Plants have varying nutrient and water requirements, just as different soils have varying nutrient and water contents. Therefore, recognizing certain vegetative clues can help us predict certain soil characteristics. The cypress tree, for example, almost always grows in soils that have a SHWT at or above the surface.

Ecological Plant Communities

- Coastal Strand
- Sand Pine Scrub
- Longleaf Pine-Turkey Oak Hills
- Mixed Hardwood and Pine
- Flatwoods (*contains Pine and Saw Palmettos*)
- Upland Hardwood Hammocks
- Wetland Hardwood Hammock
- Swamps

Ecological Plant Communities

- Bottomland Hardwoods
- Pitcher Plant Bogs
- Sawgrass Marsh
- Freshwater Marsh
- Salt Marsh
- Sloughs
- Cutthroat Seeps

Sand Pine



Camphor Tree (Citrus County)



**Cattail
(without
seeds)**



**Sand Oak
and Saw
Palmetto**



Everglades



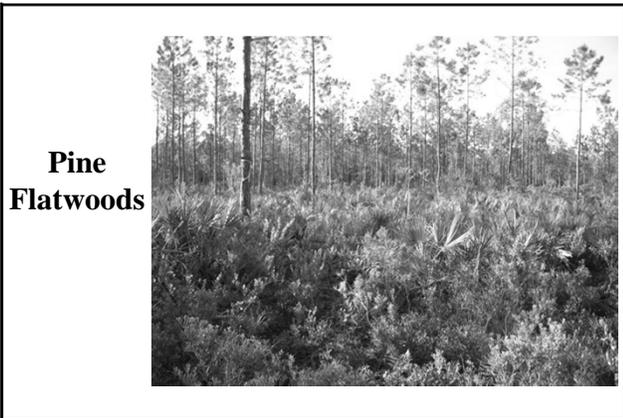
Turkey Oak

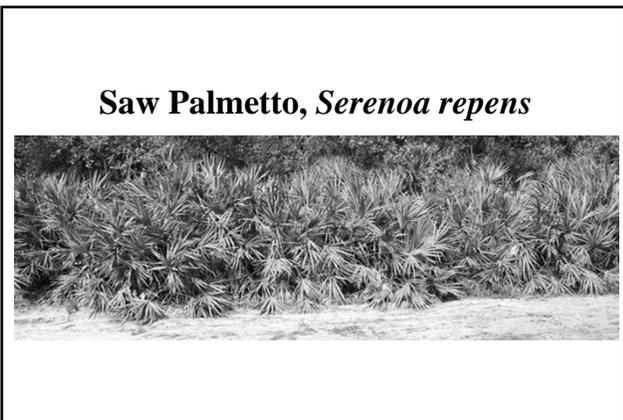




Pine Flatwoods









Cabbage Palm
Sabal Palmetto



**Cypress
and
Cabbage
Palm in
floodplain**



Red Maple



**Red
Maple
Samara
(fruit)**



**Black Titi
(*Cliftonia
monophylla*)
in bloom**



**Black
Titi
close-
up**



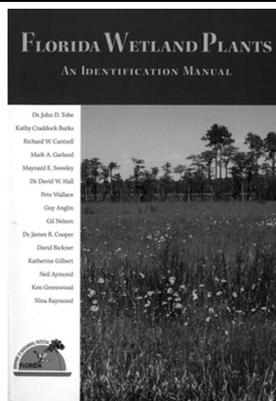
Salt Marsh



Sawgrass



**DEP Plant
Identification
Manual for
wetter areas**



FLORIDA WETLAND PLANTS

- The manual is available from the University of Florida/The Institute of Food and Agricultural Sciences (UF/IFAS) Publications, P.O. Box 110011, Gainesville, Florida, 32611. The cost is \$35.00 plus \$4.00 shipping and handling. Florida addresses must add the appropriate sales tax. Purchase orders, check, or charges (MasterCard, or VISA by calling 1-800-226-1764) are accepted. (as of 2/15/12)

QUESTIONS???

METHODS OF SOIL INVESTIGATION



METHODS OF SOIL INVESTIGATION

- Obtaining Soil Survey Data
- Evaluation of Surroundings

PROBLEM SOILS

- Filled Areas
- Local Knowledge of Area Soils
- Consult OSTDS Program Office
- Consult Soil Scientist

• **QUESTIONS????**