

**Web Soil Survey and Soil Classification Information**  
**March 2019**

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Florida Department of Health

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**OBJECTIVES**

- Define and describe web soil survey and its use
- Describe USDA NRCS soil classification system

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**Where do you find information on soils?**

- USDA NRCS web soil survey
- Legacy Soil Surveys (paperback books)

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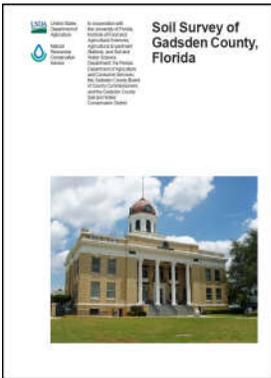
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**Soil Survey of Gadsden County, Florida**



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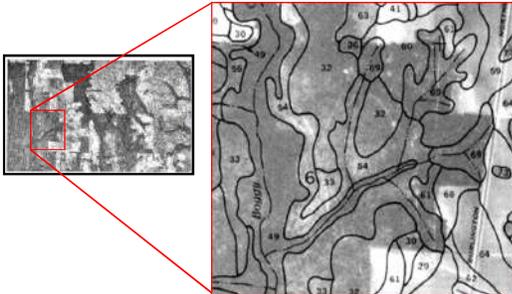
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**Soil Map from a Published Soil Survey**



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**Soil Surveys**

- 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

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### Soil Surveys

- 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)



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### 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



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### 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



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## Using Web Soil Survey (WSS)

- Interpretive tables refined and presented in new format, now has DOH drainfield interpretation
- Designed for parcels or projects – not entire county

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## New Web Soil Survey 3.0

- How to use the new WSS:  
<http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>
- Has improved maps and imagery, uses Bing Maps
- Editable map properties
- Improved special line features
- Review changes at your leisure

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**WEB SOIL SURVEY 3.0**  
Updated 8/2/13

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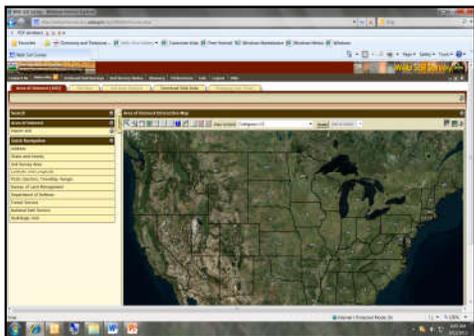
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## WEB SOIL SURVEY HOME



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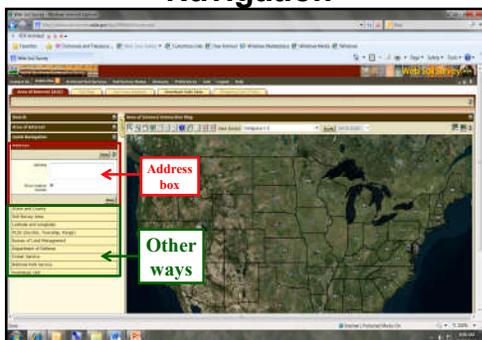
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## Navigation



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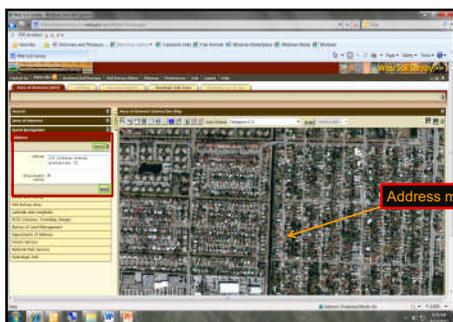
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## Input address, "view" looks like this:



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

How is this done?

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## This is how-----

Several ways to navigate to AOI

- Quick Navigation Options
- Magnifying Tool
  - Two ways to define AOI
- Rectangle
- Polygon

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## 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

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## Parcel Observation

- Do not zoom into one small area
- AOI should cover several acres with your site in the middle
- Allows for observation of surrounding soils
- Calibrate the scale on survey
- Warning will show if scale is much smaller than mapped scale

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## Calibration of Scale on WSS

Click on Scale Button and follow directions

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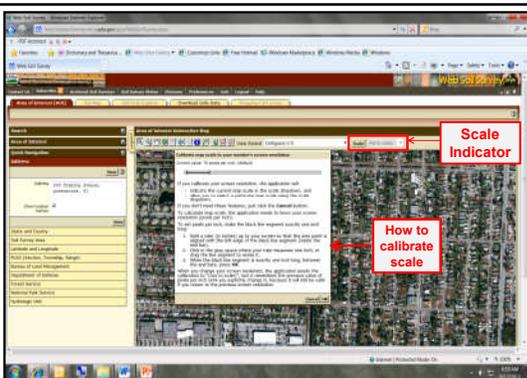
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## Soil Information

- Includes the types and amounts of soil (and water) that is included in your AOI, including the acreage mapped
- Clicking on a map unit name will give you the following information




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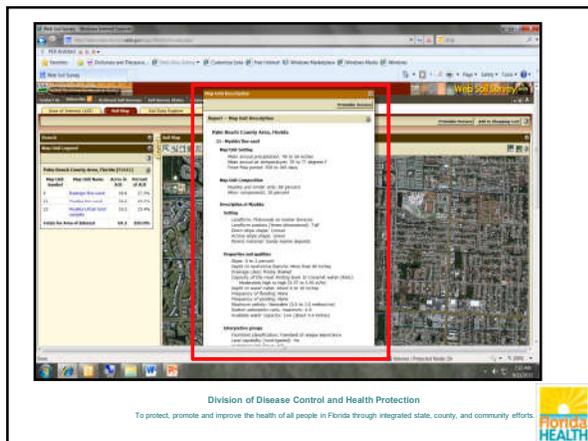
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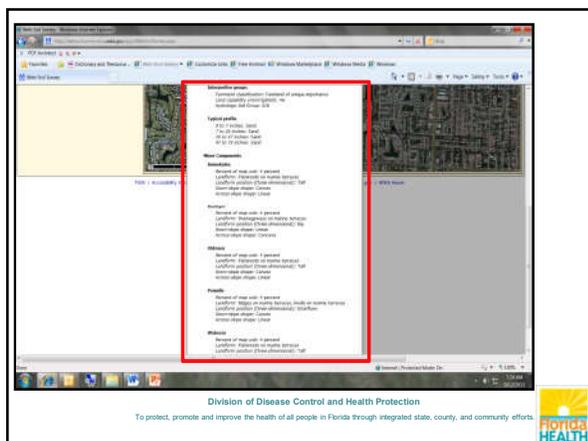
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## Map Unit Descriptions

- This information is not that helpful for what we do, does not supply necessary detail for our purposes
- We need to access the current soil classification information
- This is found at a USDA NRCS website, *Soil Series Name Search*

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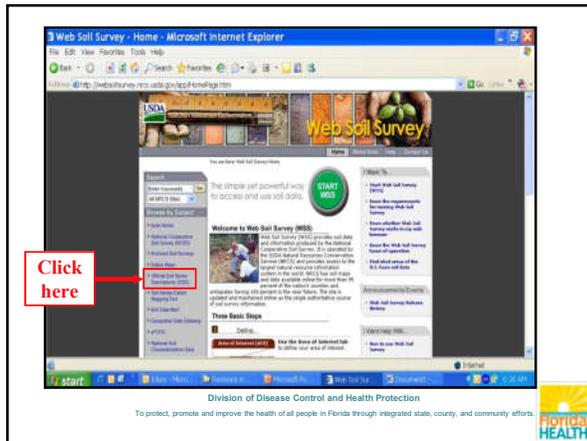
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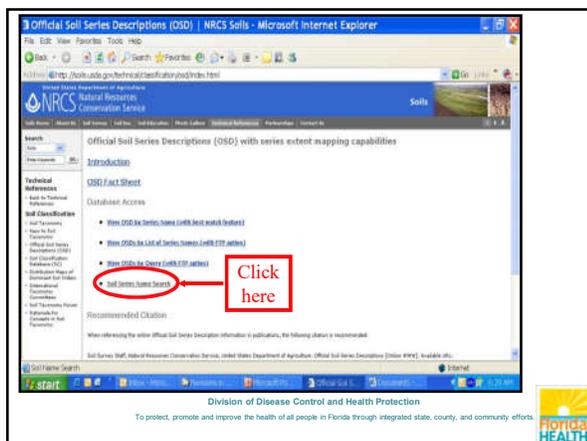
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## SAVE THIS TO "FAVORITES"



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## Input soil name then "Process"



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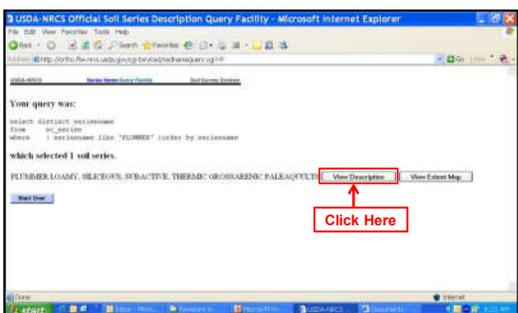
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## Soil displayed/View description of soil



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- Major soil map unit may not be found in your drainfield area
- Depends on soil forming factors, including landscape position
- Soils on knolls may be better drained, deeper SHWT
- Soils in depressions more poorly drained, higher SHWT
- Drainfields: 250 to >14,000 square feet

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## QUESTIONS?

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## VEGETATION AND SOILS



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### VEGETATION AND SOILS

- Intimate relationship between soil types and natural vegetation
- Plants have varying nutrient water and nutrient requirements
- Recognizing vegetative clues can help predict certain soil characteristics such as seasonal high water table

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### Ecological Plant Communities

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

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### Ecological Plant Communities

- Upland Hardwood Hammocks
- Wetland Hardwood Hammock
- Swamps
- Bottomland Hardwoods
- Pitcher Plant Bogs

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## Ecological Plant Communities

- Sawgrass Marsh
- Freshwater Marsh
- Salt Marsh
- Sloughs
- Cutthroat Seeps

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**Sand Pine**

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**Camphor Tree**

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**Cattail  
(without  
seeds)**

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**Sand Oak  
and Saw  
Palmetto**

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**Everglades**

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**Turkey Oak**

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**Pine Flatwoods**



02/13/2012

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**Saw Palmetto, *Serenoa repens***



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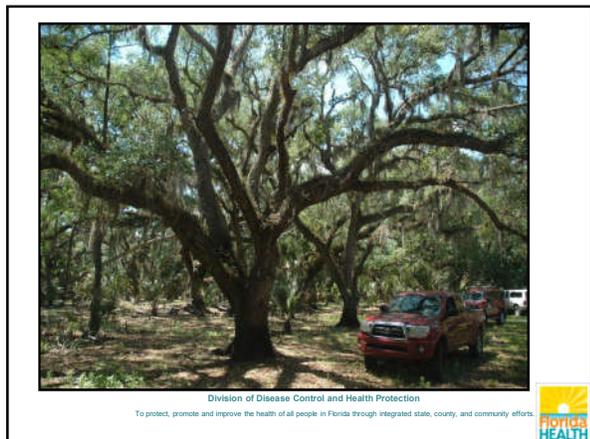
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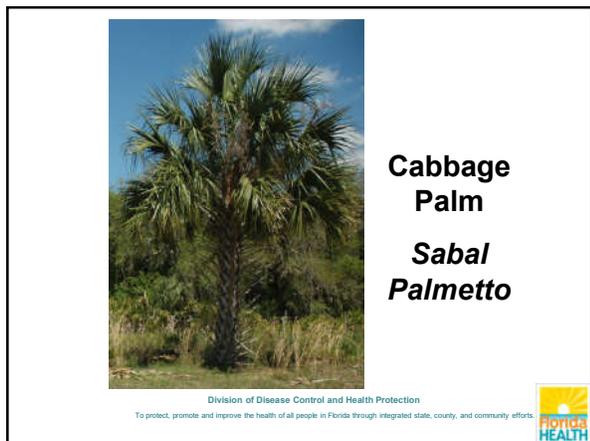
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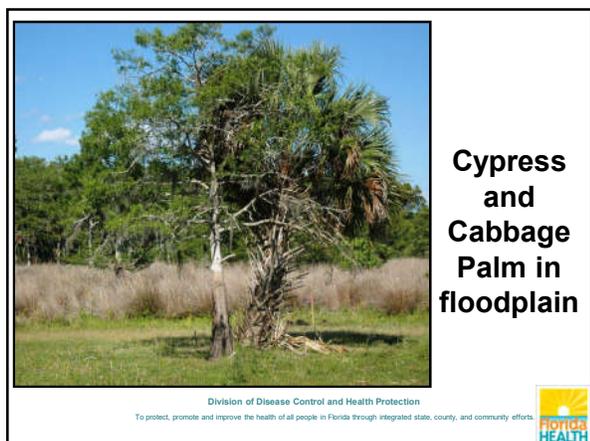
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**Red Maple**  
***Acer***  
***rubrum***

02/13/2012

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**Red Maple**  
**Samara**  
**(fruit)**

02/13/2012

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

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**Black Titi  
close-up**

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**Salt  
Marsh**

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**Sawgrass**

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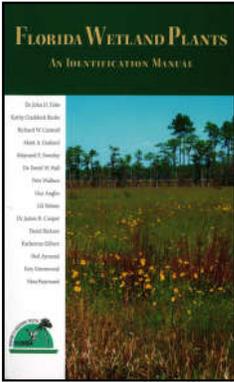
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**FLORIDA WETLAND PLANTS**  
AN IDENTIFICATION MANUAL

DEPARTMENT OF ENVIRONMENTAL PROTECTION  
Kathy O'Connell  
Richard W. Connor  
Mark A. Giddens  
Howard G. Swamy  
Dr. Donald W. Hall  
Tom Padgett  
Tom Anglin  
Bill Giddens  
Dr. James H. Cooper  
David Wilson  
Katherine Gilman  
Mark Reynolds  
Eric Greenwald  
Steve Pugh

**DEP Plant Identification Manual (for wetter areas)**

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**FLORIDA WETLAND PLANTS**

- Available from UF
- UF/IFAS Publications, PO Box 110011  
Gainesville, FL 32611
- \$35 plus S/H
- Sales tax if Florida citizen
- Purchase orders, checks, credit card

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**METHODS OF SOIL INVESTIGATION**



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**METHODS OF SOIL INVESTIGATION**

**Obtaining Soil Survey Data**

**Evaluation of Surroundings**

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**PROBLEM SOILS**

**Filled Areas**

**Local Knowledge of Area Soils**

**Consult OSTDS Program Office**

**Consult Soil Scientist**



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**End of Presentation**

**QUESTIONS?**

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