

Instructions for using NRCS Web Soil Survey

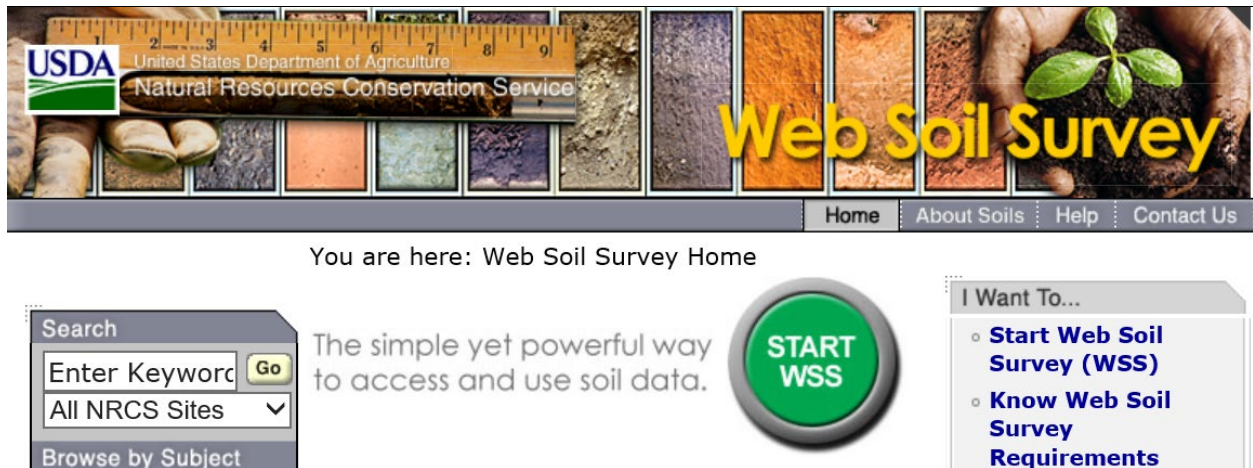
It is an SADC requirement that all appraisals contain soils data for both the subject and all of the comparable sales within the report. This is a brief instructional tool on some of the basics of the Web Soil Survey website that is very helpful in determining soil types specifically related to the farmland preservation appraisal process, including septic compatibility, agricultural soil ratings (Prime, Statewide, etc.) and Hydric soils.

Web Soil Survey is a free website that provides soil data and information produced by the National Cooperative Soil Survey.

To access Web Soil Survey, click on the link below:

[Link to Web Soil Survey](#)

Or simply Google “Web Soil Survey”



*For questions or assistance using Web Soil Survey,
please email SADC Review Appraiser Jolyn Czerniecki*

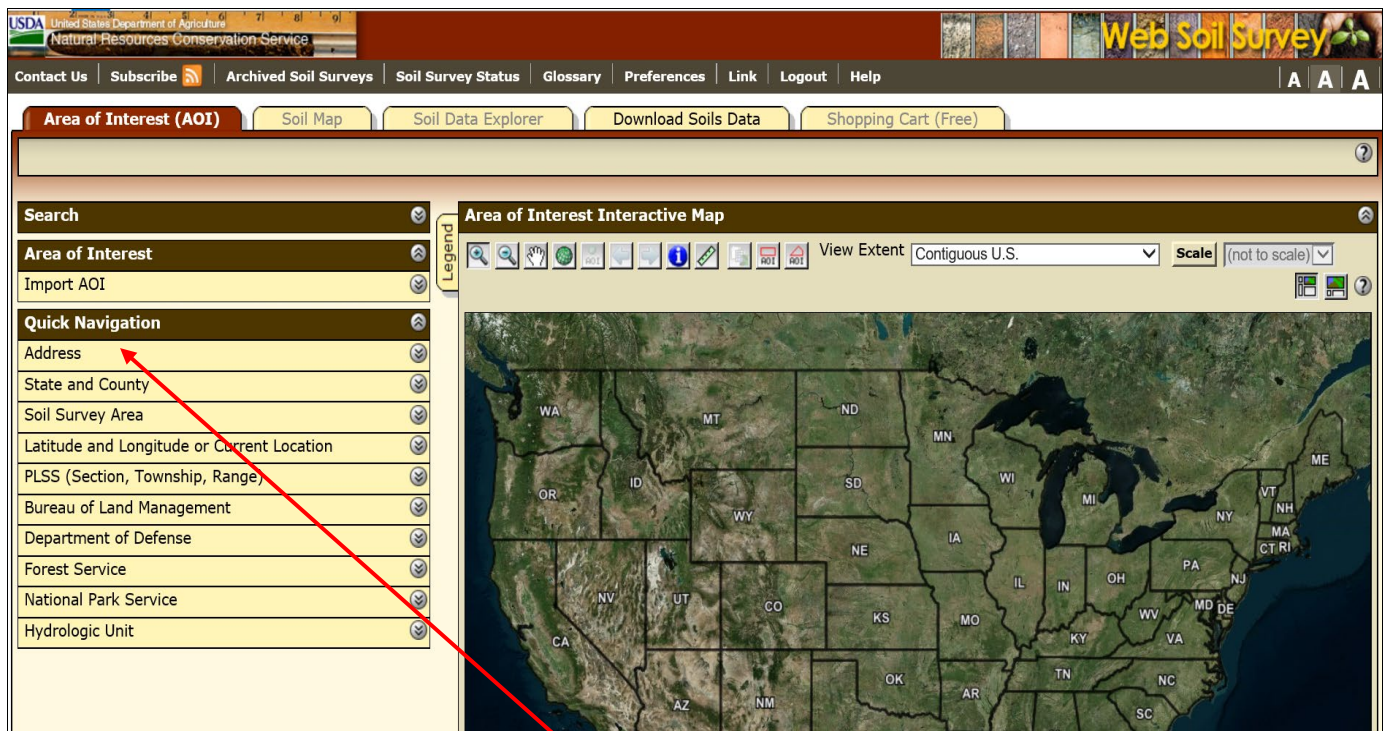
jolyn.czerniecki@aq.nj.gov

Let's begin...

Step 1. Click on the green button “Start WSS”

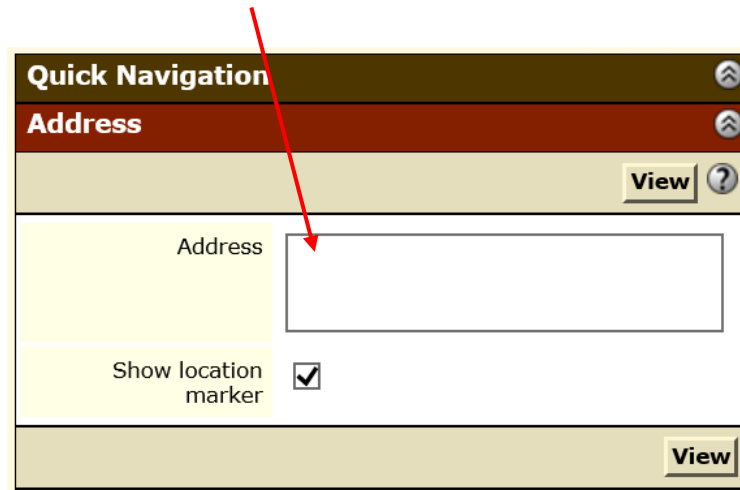


Your screen will look like this:



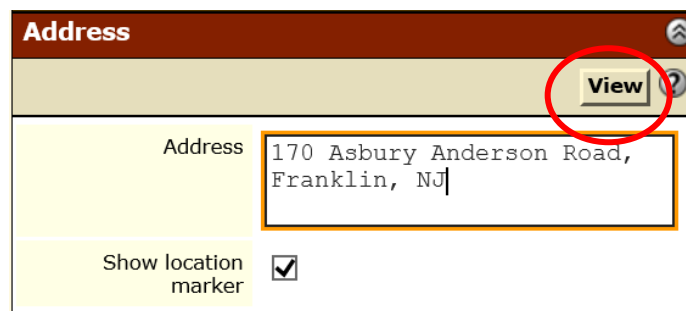
Step 2. Begin by clicking on the drop down for Address to search the address of your property

Step 3. Type the address for your property in the box (without pressing ENTER until completely finished).



The screenshot shows a web form titled "Quick Navigation". It has a "View" button with a question mark icon. Below this is a section labeled "Address" with a text input field. A red arrow points to this input field. Below the input field is a checkbox labeled "Show location marker" which is checked. At the bottom right of the form is another "View" button.

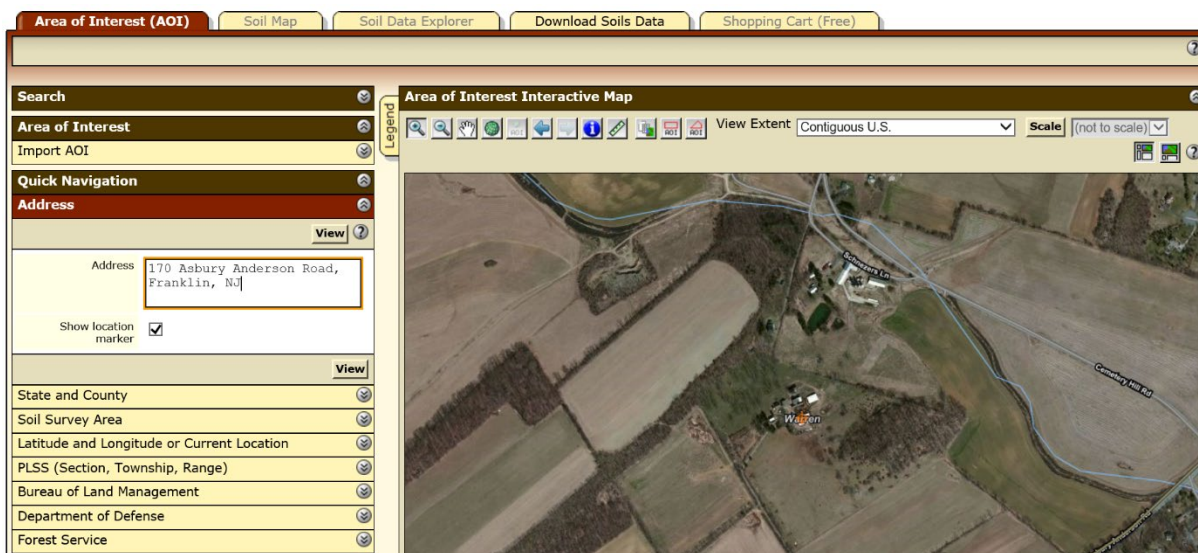
Like this:



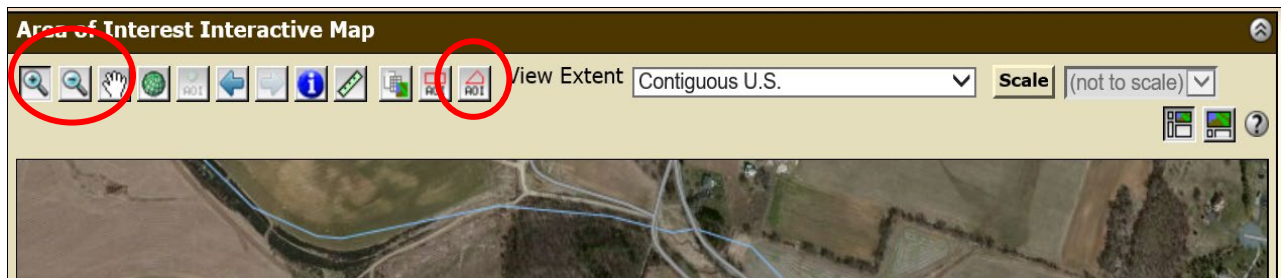
The screenshot shows a web form titled "Address". It has a "View" button with a question mark icon, which is circled in red. Below this is a section labeled "Address" with a text input field containing the text "170 Asbury Anderson Road, Franklin, NJ". Below the input field is a checkbox labeled "Show location marker" which is checked.

Then click on VIEW. Pressing ENTER also works but sometimes is glitchy.

An aerial image of your farm and the surrounding area should appear:




Step 4. Your farm, or “Area of Interest” (AOC), must now be manually selected by identifying its boundaries. It is helpful if you have an aerial map with the boundaries of your farm on hand to use as a guide. You want to be able to see the entire farm on your screen at one time. This process can be tricky, especially if your farm is large, as sometimes it is difficult to see both your boundaries clearly and the entirety of the farm. This process will be done using the following icons:



It may be necessary to zoom in to see all the boundaries of your farm.




To Zoom in, click on the  icon and then click once in the center of the farm. You can also click, hold, and drag from one corner of the farm to another and zoom directly to the ‘box’ you select.



To Zoom out, click on the  icon, then click once in the center of the farm.

If a portion of the farm has moved off the screen, it may be necessary to adjust the image by moving the farm.



To move the image, click on the Pan  icon, then click and drag the farm into position.

You will not see the new portions of the farm appearing on the screen, so it may be necessary to move it more than once to get everything you’re looking for.

Once the entire farm is visible, but large enough to see the farm’s boundaries, you are ready to select the farm, by essentially outlining it.



Click on the AOI  polygon icon to activate the selection tool.

Begin by clicking on a point on the farm's boundary (do not click and drag), then, following the outline of your farm, click once on points along the farm's boundary where turns, even slight ones such as arcs, are necessary. As you are clicking, your farm will be outlined in red. This outline is not complete until you double-click at your finishing point.

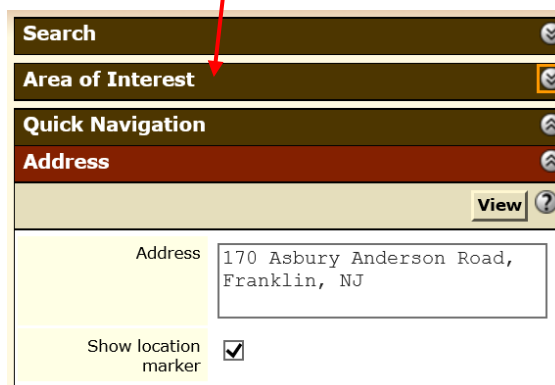


Once you have double-clicked, your farm should show like this:



Next, to confirm you have correctly selected the farm and the proper acreage:

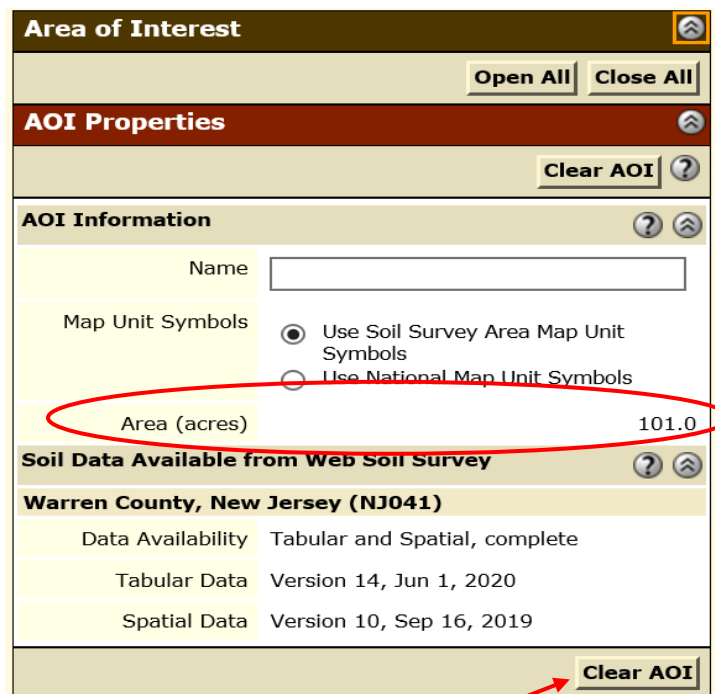
Click on the drop down for Area of Interest:



The screenshot shows a web form with several sections: 'Search', 'Area of Interest' (with a dropdown arrow), 'Quick Navigation', 'Address', and a 'View' button. Below these is a text input for 'Address' containing '170 Asbury Anderson Road, Franklin, NJ' and a checked checkbox for 'Show location marker'.

This screen should open, showing the total number of acres in your AOI:

(You may need to click the 'down carrot' next to "AOI Information" to be able to see the AOI info.)

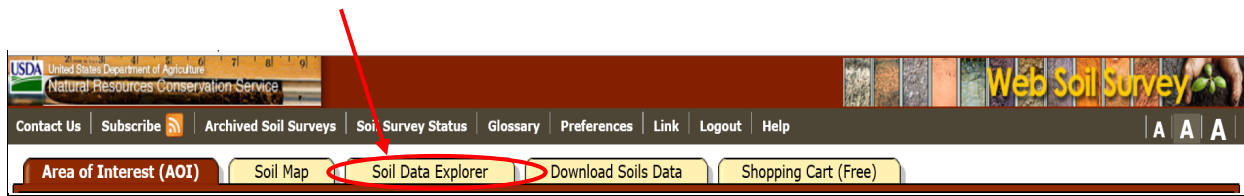


The screenshot shows the 'Area of Interest' screen. It includes buttons for 'Open All', 'Close All', and 'Clear AOI'. The 'AOI Properties' section has a 'Clear AOI' button. The 'AOI Information' section is expanded, showing a 'Name' field, 'Map Unit Symbols' (with radio buttons for 'Use Soil Survey Area Map Unit Symbols' and 'Use National Map Unit Symbols'), and 'Area (acres)' with the value '101.0'. Below this is the 'Soil Data Available from Web Soil Survey' section for 'Warren County, New Jersey (NJ041)', showing 'Data Availability' as 'Tabular and Spatial, complete', 'Tabular Data' as 'Version 14, Jun 1, 2020', and 'Spatial Data' as 'Version 10, Sep 16, 2019'. A red circle highlights the 'Area (acres)' field, and a red arrow points to the 'Clear AOI' button at the bottom right.

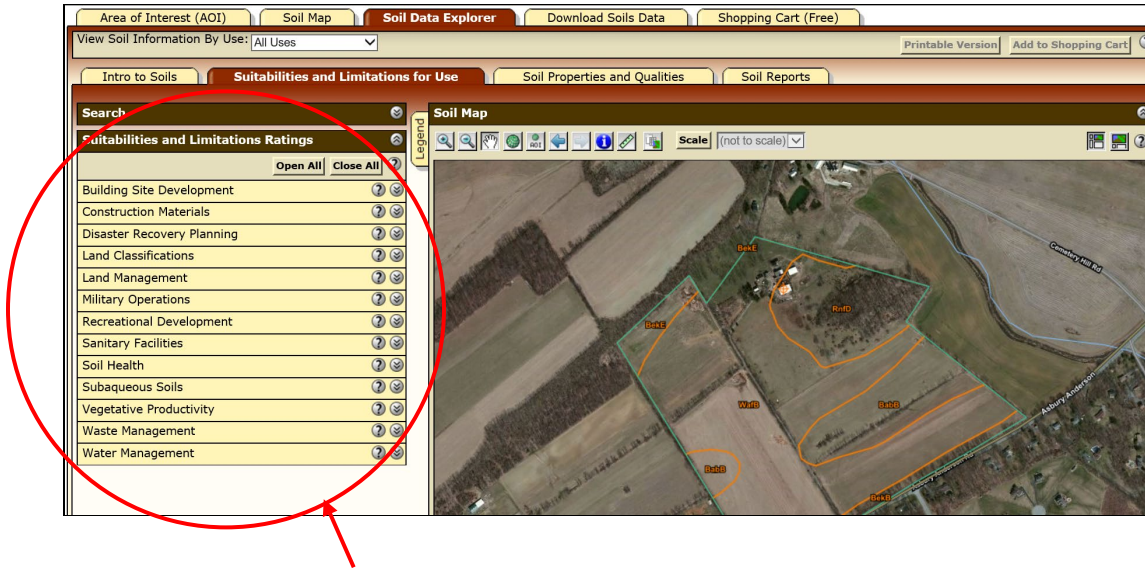
If your acreage needs to be corrected:

Start by clicking on the Clear AOI button and you will need to begin the selection process again. If your acreage is reasonably correct (within a few acres; it will never be perfect), then you can continue with Step 5.

Step 5. Click on Soil Data Explorer at the top of the screen

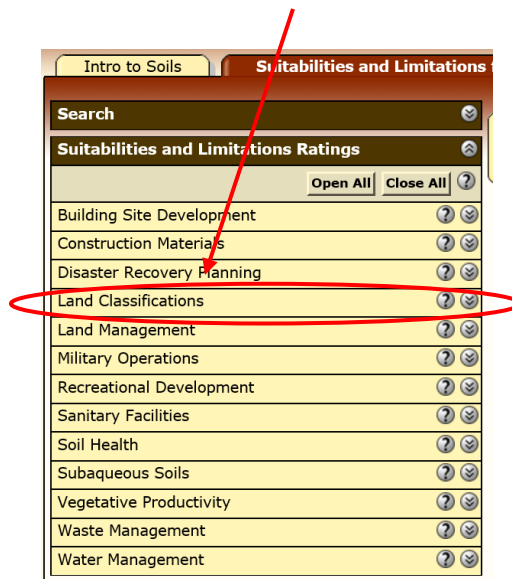


This will show a map with the soil types on your farm:



This is the main menu that will be used to access the data regarding the various soil types. All of the categories can be expanded or collapsed by clicking on the drop-down arrows at the right.

Click on the drop down for Land Classifications.



Step 6. For Agricultural soil ratings (Prime, Statewide, etc.), select Farmland Classification:

Land Classifications	?	⌵
Conservation Tree and Shrub Group		⌵
Ecological Site ID		⌵
Ecological Site Name		⌵
Farmland Classification		⌵
Hydric Rating by Map Unit		⌵
Irrigated Capability Class		⌵
Irrigated Capability Subclass		⌵
National Commodity Crop Productivity Index		⌵
NCCPI Corn Productivity		⌵
NCCPI Cotton Productivity		⌵
NCCPI Small Grains Productivity		⌵
NCCPI Soybeans Productivity		⌵
NH Forest Soil Group		⌵
Nonirrigated Capability Class		⌵
Nonirrigated Capability Subclass		⌵
Order of Soil Survey		⌵
Soil Moisture Class		⌵
Soil Moisture Subclass		⌵
Soil Taxonomy Classification		⌵
Soil Temperature Regime		⌵

Click View Rating to see the classification for each soil type:

Land Classifications	?	⌵
Conservation Tree and Shrub Group		⌵
Ecological Site ID		⌵
Ecological Site Name		⌵
Farmland Classification		⌵
View Description View Rating		
View Options ? ⌵		
Map	<input checked="" type="checkbox"/>	
Table	<input checked="" type="checkbox"/>	
Description of Rating	<input checked="" type="checkbox"/>	
Rating Options	<input checked="" type="checkbox"/>	
<input type="checkbox"/> Detailed Description		
Advanced Options ? ⌵		
View Description View Rating		

The following map will appear with the detail for each soil listed below:



Tables — Farmland Classification — Summary By Map Unit

Summary by Map Unit — Warren County, New Jersey (NJ041)				
Summary by Map Unit — Warren County, New Jersey (NJ041)				
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
BabB	Bartley loam, 3 to 8 percent slopes	All areas are prime farmland	15.1	14.9%
BekB	Berks channery silt loam, 3 to 8 percent slopes	Farmland of statewide importance	4.6	4.5%
BekE	Berks channery silt loam, 25 to 45 percent slopes	Not prime farmland	3.3	3.3%
RnfD	Rock outcrop-Farmington-Galway complex, 15 to 35 percent slopes	Not prime farmland	15.5	15.3%
WafB	Washington silt loam, 3 to 8 percent slopes	All areas are prime farmland	62.6	62.0%
Totals for Area of Interest			101.0	100.0%

For Hydric Soils and ponding, select **Hydric Rating by Map Unit**:

Land Classifications	
Conservation Tree and Shrub Group	⌵
Ecological Site ID	⌵
Ecological Site Name	⌵
Farmland Classification	⌵
Hydric Rating by Map Unit	⌵
Irrigated Capability Class	⌵
Irrigated Capability Subclass	⌵
National Commodity Crop Productivity Index	⌵
NCCPI Corn Productivity	⌵
NCCPI Cotton Productivity	⌵
NCCPI Small Grains Productivity	⌵
NCCPI Soybeans Productivity	⌵
NH Forest Soil Group	⌵
Nonirrigated Capability Class	⌵
Nonirrigated Capability Subclass	⌵
Order of Soil Survey	⌵
Soil Moisture Class	⌵
Soil Moisture Subclass	⌵
Soil Taxonomy Classification	⌵
Soil Temperature Regime	⌵

Then click **View Rating**:

Hydric Rating by Map Unit	
View Description View Rating	
View Options	
Map	<input checked="" type="checkbox"/>
Table	<input checked="" type="checkbox"/>
Description of Rating	<input checked="" type="checkbox"/>
Rating Options	<input checked="" type="checkbox"/>
<input type="checkbox"/> Detailed Description	
Advanced Options	
View Description View Rating	

The following map will appear with the detail for each soil listed below:



Tables — Hydric Rating by Map Unit — Summary By Map Unit

Summary by Map Unit — Warren County, New Jersey (NJ041)				
Summary by Map Unit — Warren County, New Jersey (NJ041)				
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
BabB	Bartley loam, 3 to 8 percent slopes	0	15.1	14.9%
BekB	Berks channery silt loam, 3 to 8 percent slopes	0	4.6	4.5%
BekE	Berks channery silt loam, 25 to 45 percent slopes	0	3.3	3.3%
RnfD	Rock outcrop-Farmington-Galway complex, 15 to 35 percent slopes	0	15.5	15.3%
WafB	Washington silt loam, 3 to 8 percent slopes	0	62.6	62.0%
Totals for Area of Interest			101.0	100.0%

For Septic Compatible Soils, click on Sanitary Facilities from the main menu:

The screenshot shows a web application interface with two tabs: 'Intro to Soils' and 'Suitabilities and Limitations'. The 'Suitabilities and Limitations' tab is active. Below the tabs is a search bar and a list titled 'Suitabilities and Limitations Ratings'. The list contains various categories, each with a question mark icon and a downward arrow icon. The 'Sanitary Facilities' item is circled in red. Other items in the list include Building Site Development, Construction Materials, Disaster Recovery Planning, Land Classifications, Land Management, Military Operations, Recreational Development, Soil Health, Subaqueous Soils, Vegetative Productivity, Waste Management, and Water Management.

Suitabilities and Limitations Ratings	
Building Site Development	?
Construction Materials	?
Disaster Recovery Planning	?
Land Classifications	?
Land Management	?
Military Operations	?
Recreational Development	?
Sanitary Facilities	?
Soil Health	?
Subaqueous Soils	?
Vegetative Productivity	?
Waste Management	?
Water Management	?

click on Sewage Disposal (NJ):

The screenshot shows a web application interface with a list titled 'Sanitary Facilities'. The list contains several items, each with a downward arrow icon. The 'Sewage Disposal (NJ)' item is circled in red. Other items in the list include Daily Cover for Landfill, Sanitary Landfill (Area), Sanitary Landfill (Trench), Septic Tank Absorption Fields, Sewage Lagoons, and Soil-Based Residential Wastewater Disposal Ratings (VT).

Sanitary Facilities	
Daily Cover for Landfill	?
Sanitary Landfill (Area)	?
Sanitary Landfill (Trench)	?
Septic Tank Absorption Fields	?
Sewage Disposal (NJ)	?
Sewage Lagoons	?
Soil-Based Residential Wastewater Disposal Ratings (VT)	?

Then click View Rating:

The screenshot shows a web application interface with a list titled 'Sanitary Facilities'. The 'Sewage Disposal (NJ)' item is selected and highlighted in red. Below the list is a 'View Options' section with several checkboxes. The 'View Rating' button is circled in red. Other items in the list include Daily Cover for Landfill, Sanitary Landfill (Area), Sanitary Landfill (Trench), and Septic Tank Absorption Fields.

Sanitary Facilities	
Daily Cover for Landfill	?
Sanitary Landfill (Area)	?
Sanitary Landfill (Trench)	?
Septic Tank Absorption Fields	?
Sewage Disposal (NJ)	?

View Options

Map ☒

Table ☒

Description of Rating ☒

Rating Options ☒

Component Breakdown and Rating Reasons ☒

Numeric Values ☒

Detailed Description ☐

Advanced Options

View Rating

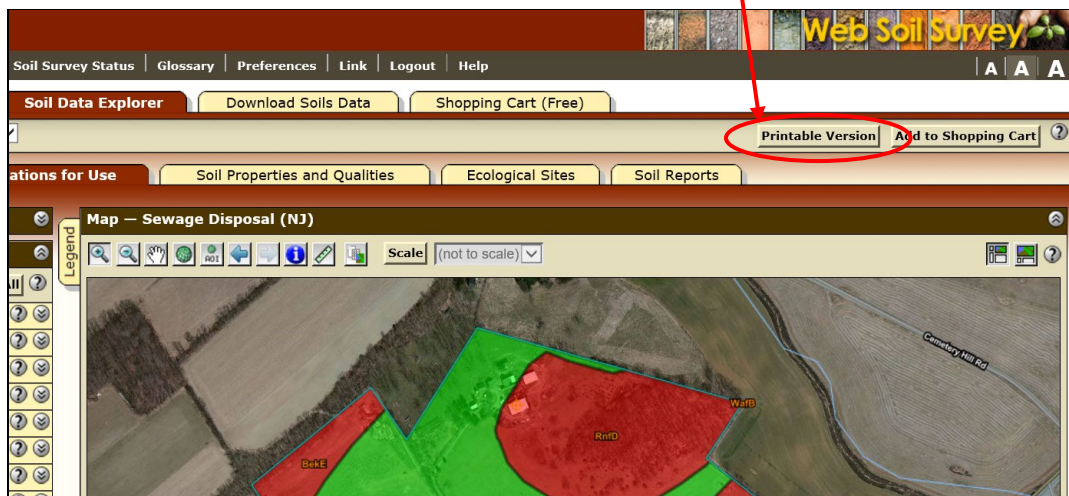
The following map will appear with the detail for each soil listed below:



Tables — Sewage Disposal (NJ) — Summary By Map Unit						
Summary by Map Unit — Warren County, New Jersey (NJ041)						
Summary by Map Unit — Warren County, New Jersey (NJ041)						
Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
BabB	Bartley loam, 3 to 8 percent slopes	Very limited	Bartley (80%)	Restrictive horizon (1.00)	15.1	14.9%
				Restrictive substratum (1.00)		
				Depth to massive bedrock (0.33)		
			Turbotville (10%)	Restrictive horizon (1.00)		
				Restrictive substratum (1.00)		
				Depth to massive bedrock (0.20)		
BekB	Berks channery silt loam, 3 to 8 percent slopes	Very limited	Berks (85%)	Depth to massive bedrock (1.00)	4.9	4.8%
				Excessively coarse horizon (0.99)		
				Excessively coarse substratum (0.99)		
			Weikert (5%)	Depth to massive bedrock (1.00)		

Table — Sewage Disposal (NJ) — Summary by Rating Value		
Summary by Rating Value		
Rating	Acres in AOI	Percent of AOI
Not limited	62.0	61.2%
Very limited	39.3	38.8%
Totals for Area of Interest	101.4	100.0%

For printing reports (available for any map), click on Printable Version:



The following window will open:

A screenshot of the 'Printable Version Options' dialog box. It has two main sections: 'Report Options' and 'Map Options'. Under 'Report Options', the 'Title' is 'Septic Tank Absorption Fields; Hunterdon County, New Jersey'. The 'Subtitle (optional)' section has three radio buttons: 'Area of Interest Name: (none defined)', 'Custom Subtitle:' (which is selected), and 'None'. Below 'Custom Subtitle:' is a text input field. Under 'Map Options', 'Map Scale' is set to 'Fit to page', 'Printed Sheet Size' is 'A landscape (11" x 8.5") - 1 sheet', and 'Show UTM Coordinate Ticks' is checked. At the bottom right are 'Cancel' and 'View' buttons.

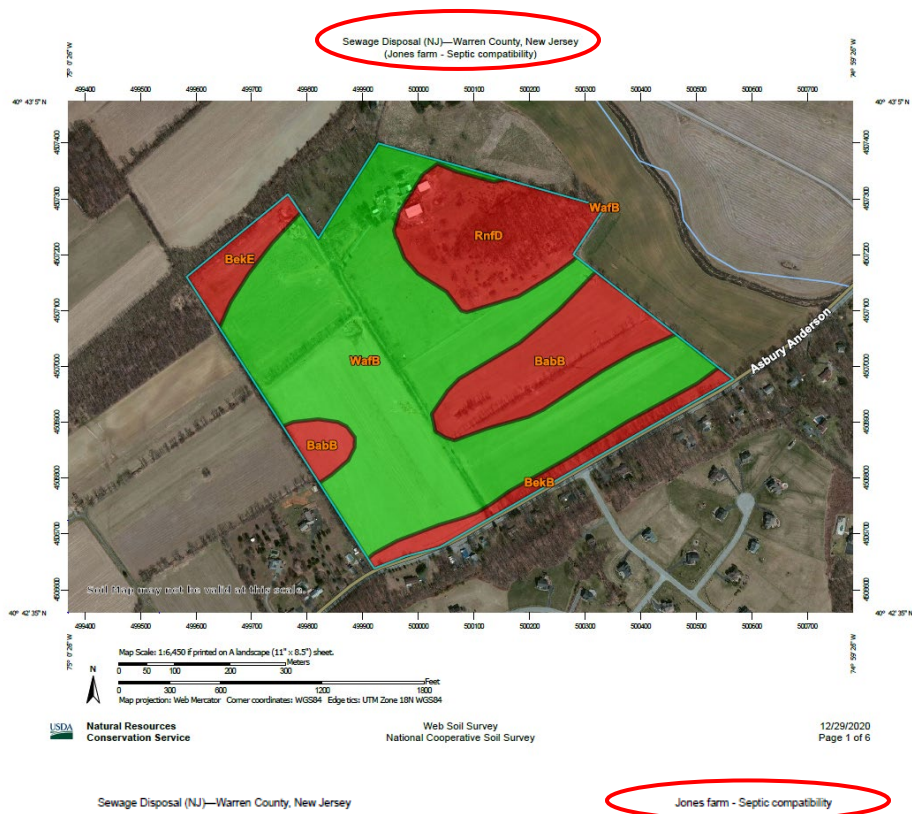
You can create a custom 'subtitle' for the map and its report (like a farm name, or the type of map) by clicking on the circle to the left of "Custom Subtitle:"

A screenshot of the 'Printable Version Options' dialog box, similar to the previous one but with modifications. The 'Title' is now 'Sewage Disposal (NJ); Warren County, New Jersey'. The 'Custom Subtitle:' radio button is selected, and the text 'Jones farm - septic compatibility' is entered in the input field. A red arrow points from the text above to the selected radio button. At the bottom right, the 'View' button is circled in red.

Then, type the desired name in the blank field and click on View.

The following multi-page report will open in PDF format:

Notice the subtitle is the name that was entered in the blank field in the previous step. This report can be printed or saved to your desktop, network, etc.



Sewage Disposal (NJ)

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
BabB	Bartley loam, 3 to 8 percent slopes	Very limited	Bartley (80%)	Restrictive horizon (1.00)	15.1	14.9%
				Restrictive substratum (1.00)		
			Turbotville (10%)	Depth to massive bedrock (0.33)		
				Restrictive horizon (1.00)		
BekB	Berks channery silt loam, 3 to 8 percent slopes	Very limited	Berks (85%)	Restrictive substratum (1.00)	4.9	4.8%
				Depth to massive bedrock (0.20)		
				Excessively		

There are many other features that this website offers; these instructions just scratch the surface. Feel free to explore the other features to learn what applications are applicable for your reports.