

Using the Web Soil Survey to Evaluate New Breaking Acreage

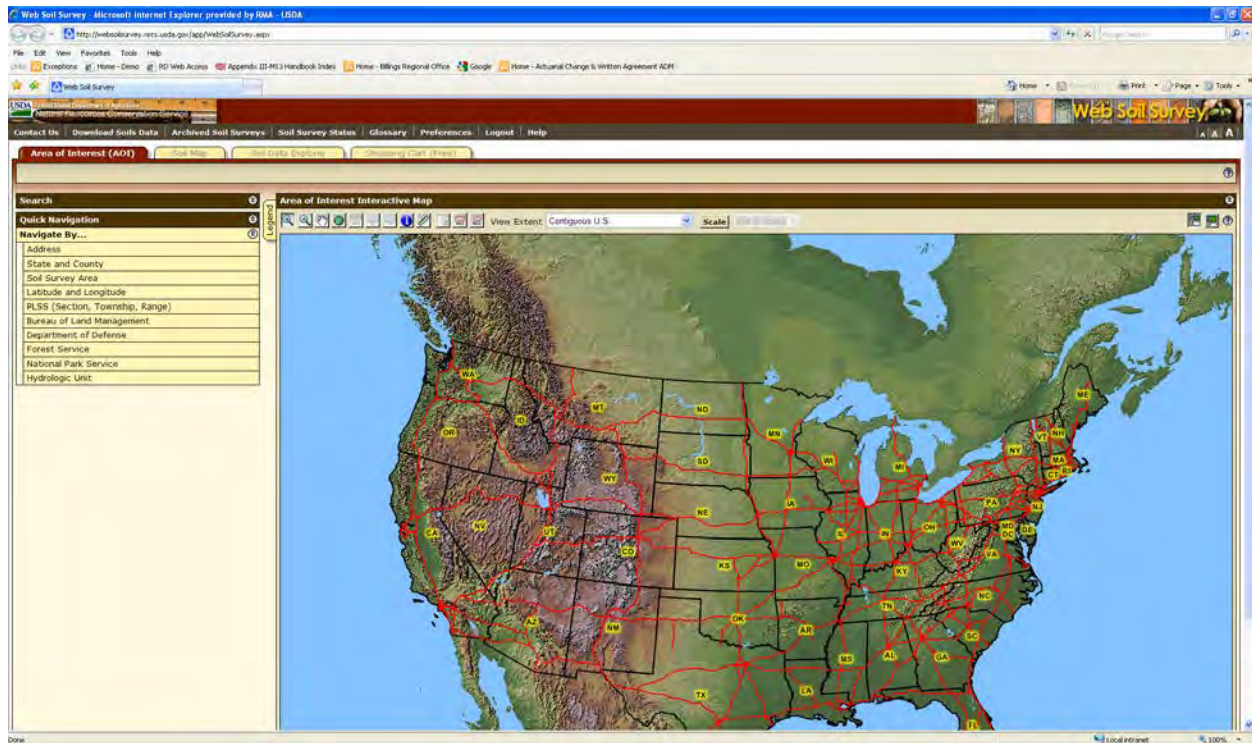
To start Web Soil Survey navigate to the following Site.

<http://websoilsurvey.nrcs.usda.gov/app/>

Click on



You will see the following



There are multiple ways to locate your interested area.

- The most common used is by PLSS (Section Township Range)
 - You can also use: Address, State and County, Latitude and Longitude as well as a few other methods.

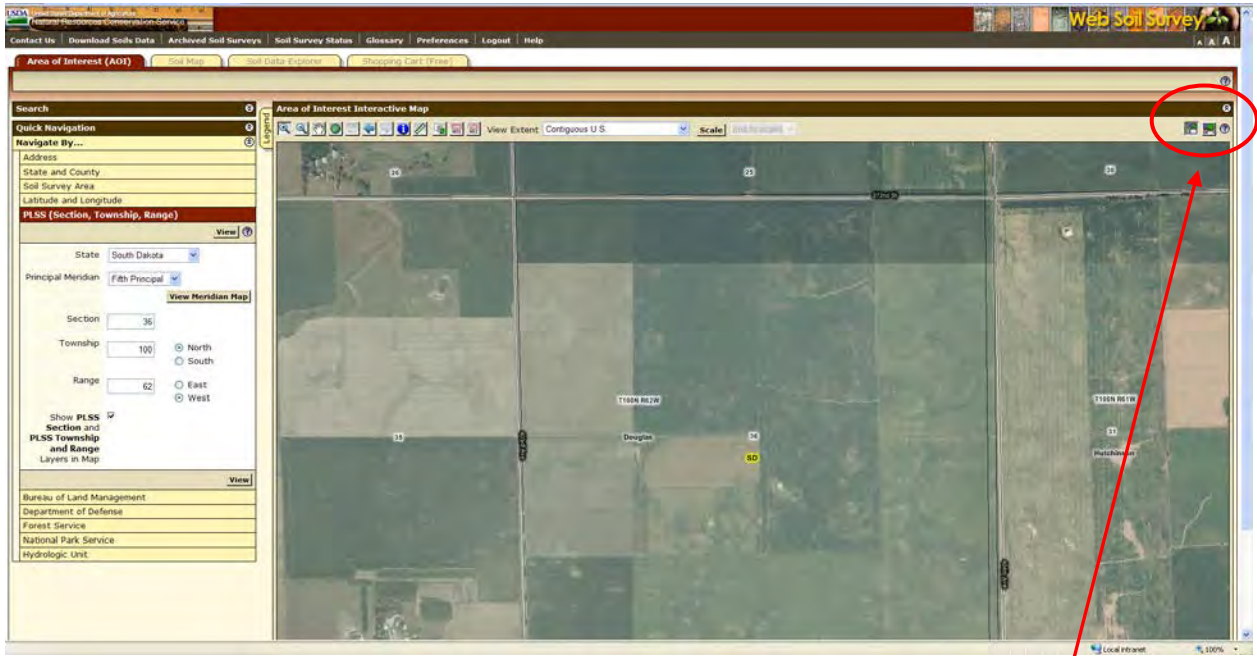
Navigate by **PLSS**

A screenshot of a software interface showing a 'Navigate By...' menu. The menu items are: Address, State and County, Soil Survey Area, Latitude and Longitude, **PLSS (Section, Township, Range)**, Bureau of Land Management, Department of Defense, Forest Service, National Park Service, and Hydrologic Unit. A red arrow points from the text 'Navigate by PLSS' to the 'PLSS (Section, Township, Range)' option, which is also circled in red.

1. Select your State
 - This example also requires you to select your Principal Meridian. You can click the **View Meridian Map** to find the correct Meridian.
2. Enter your Section, Township and Range then click view

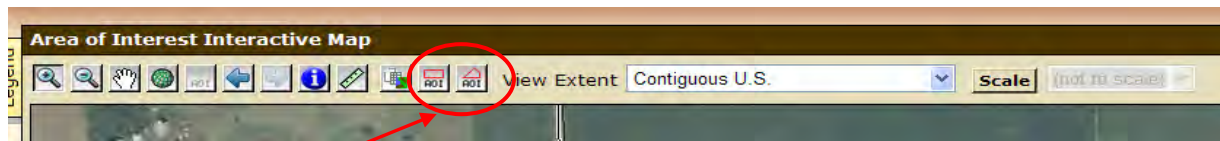
A screenshot of the 'PLSS (Section, Township, Range)' form. The form has a title bar 'PLSS (Section, Township, Range)' and a 'View' button with a help icon. Below the title bar, there are several fields: 'State' (dropdown menu set to 'South Dakota'), 'Principal Meridian' (dropdown menu set to 'Fifth Principal'), 'Section' (text input field with '36'), 'Township' (text input field with '100'), and 'Range' (text input field with '62'). To the right of the 'Township' and 'Range' fields are radio button options: 'North' and 'South' for Township, and 'East' and 'West' for Range. Below these fields is a checkbox labeled 'Show PLSS Section and PLSS Township and Range Layers in Map' which is checked. A 'View Meridian Map' button is located below the 'Principal Meridian' dropdown. At the bottom of the form is a 'View' button. Red arrows point from the text 'Section', 'Township', and 'Range' to their respective input fields. Another red arrow points from the text 'When finished click the view button' to the 'View' button at the bottom. A red arrow also points from the text 'View Meridian Map' to the 'View Meridian Map' button.

You will get the following Image



You can click on these buttons to toggle back between the **current screen and full screen**.

From here you will use the toolbar to perform various functions.

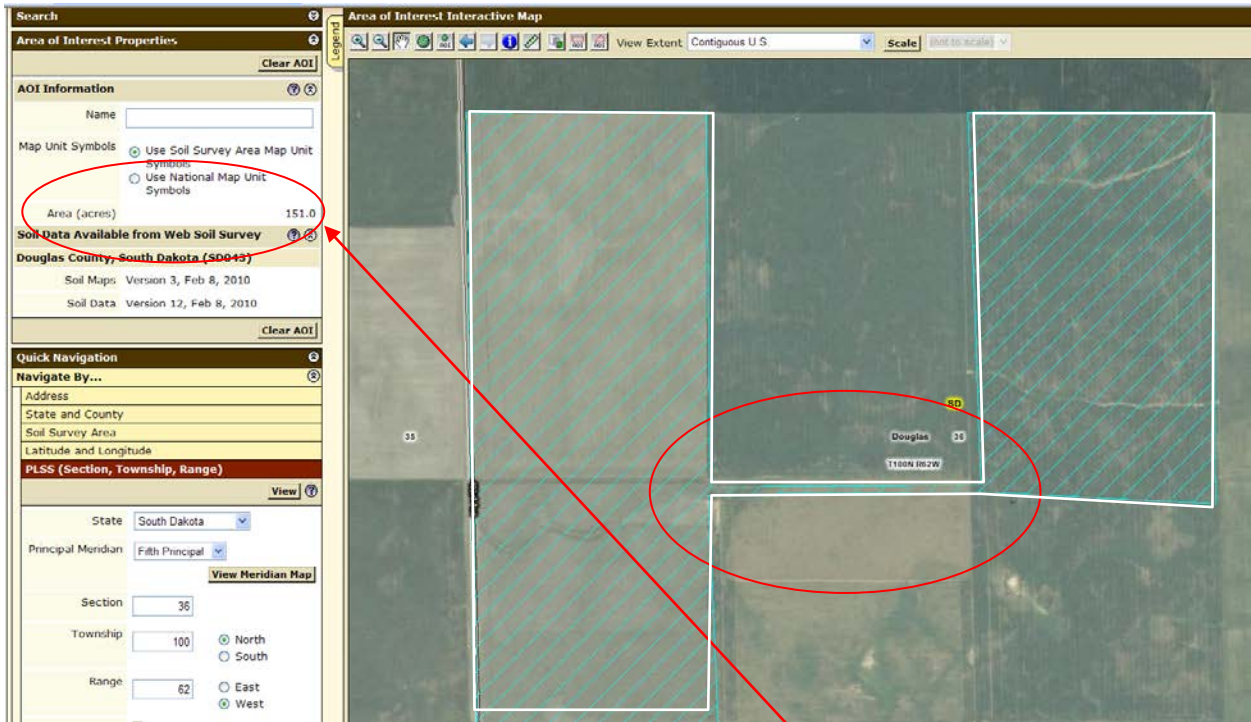


These two **tools** are used to draw the Area of Interest

- The one on the left creates a box
- The one on the right is more useful since it can be used to draw an abstract shape as seen in the two following examples. Double click to finish the drawing.

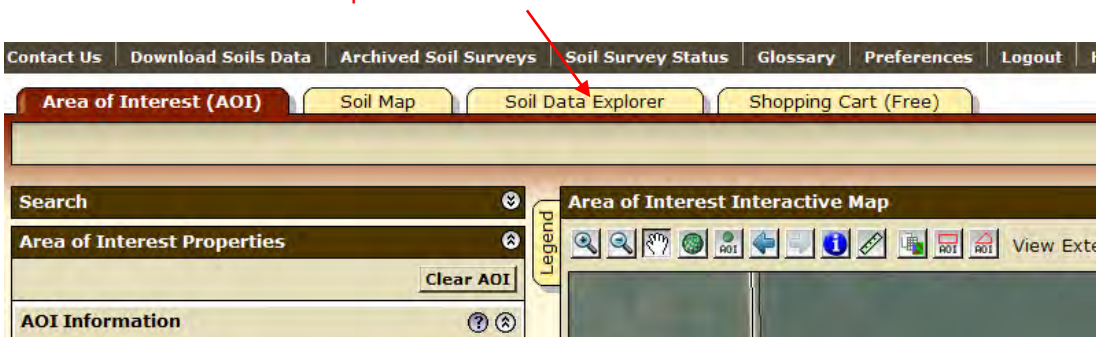


In order to get the entire area you must draw the area of interest in one polygon. One way to do this is by drawing your area of interest like the example below. The lines can overlap.

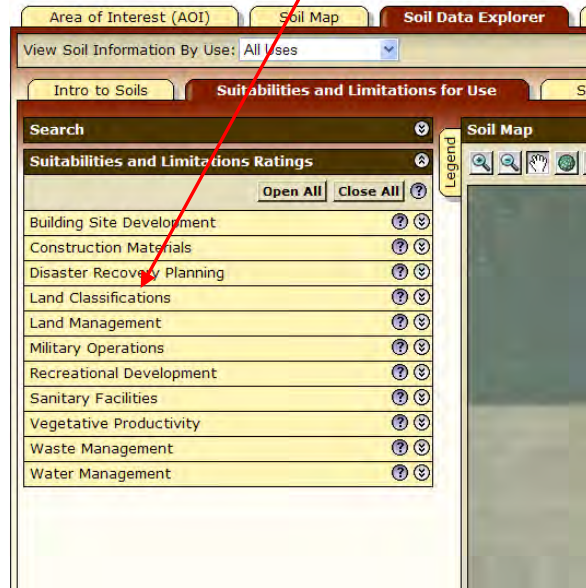


After you draw your area of interest you will want to check the total acres to help verify your accuracy. The acres are listed to the left.

The next step is to determine the Capability Class. To do this you first must navigate from the Area of Interest tab to the **Soil Data Explorer** Tab.

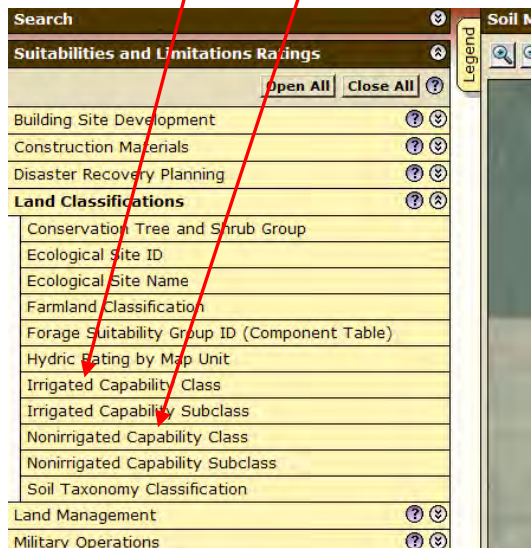


Click on **Land Classifications**



Choose the applicable Capability Class (either Irrigated or Nonirrigated). If there is no data available under Irrigated Capability Class, use Nonirrigated Capability Class.

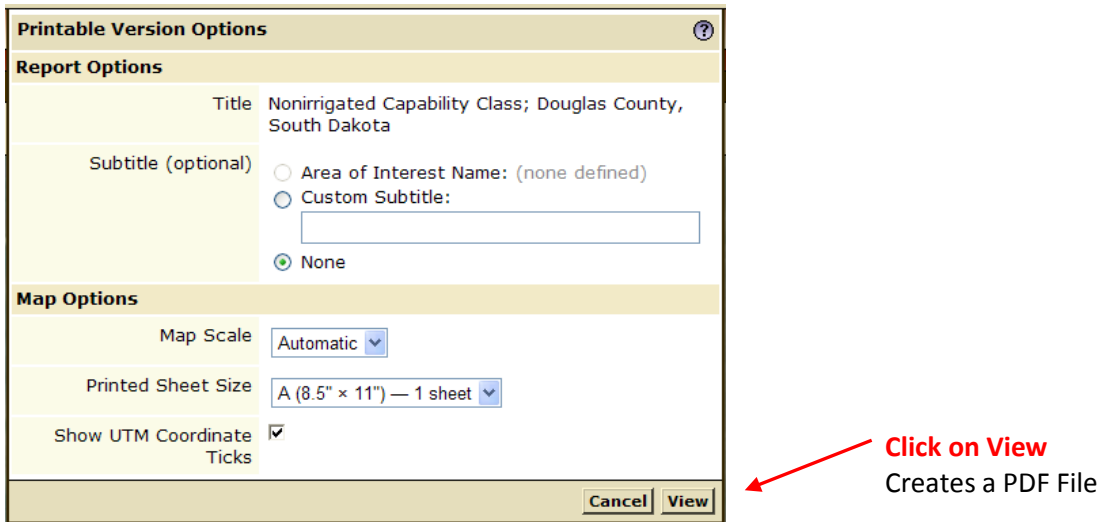
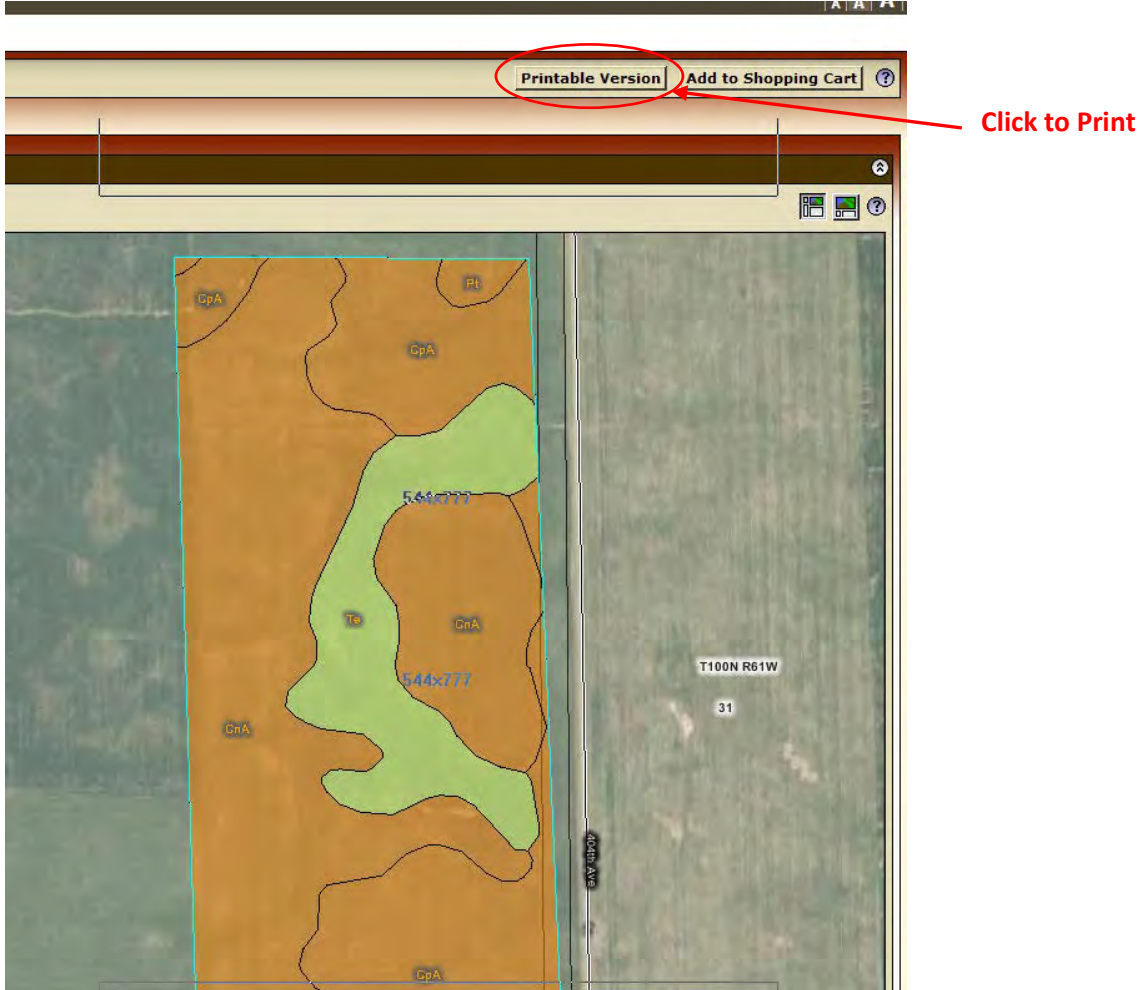
Click on **Irrigated** or **Nonirrigated** Capability Class



Click on **View Rating**



You will get the something similar to the below image.



The following pages are an example of a Printed/PDF Nonirrigated Capability Class. In order to understand the map legend it must be printed in color.

Nonirrigated Capability Class—Douglas County, South Dakota



MAP LEGEND		MAP INFORMATION	
	Area of Interest (AOI)		Local Roads
	Soils		
	Soil Map Units		
Soil Ratings			
	Capability Class - I		
	Capability Class - II		
	Capability Class - III		
	Capability Class - IV		
	Capability Class - V		
	Capability Class - VI		
	Capability Class - VII		
	Capability Class - VIII		
	Not rated or not available		
Political Features			
	Cities		
	PLSS Township and Range		
	PLSS Section		
Water Features			
	Oceans		
	Streams and Canals		
Transportation			
	Rails		
	Interstate Highways		
	US Routes		
	Major Roads		

Map Scale: 1:5,280 if printed on A size (8.5" x 11") sheet.
 The soil surveys that comprise your AOI were mapped at 1:20,000.
 Please rely on the bar scale on each map sheet for accurate map measurements.
 Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>
 Coordinate System: UTM Zone 14N NAD83
 This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.
 Soil Survey Area: Douglas County, South Dakota
 Survey Area Data: Version 13, Feb 8, 2010
 Date(s) aerial images were photographed: 7/15/2004; 8/8/2004
 The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Nonirrigated Capability Class

Nonirrigated Capability Class— Summary by Map Unit — Douglas County, South Dakota				
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
CnA	Clarno-Ethan-Prosper loams, 0 to 3 percent slopes	2	44.1	48.4%
CnB	Clarno-Ethan-Prosper loams, 1 to 6 percent slopes	2	2.0	2.2%
CpA	Clarno-Prosper loams, 0 to 2 percent slopes	2	25.2	27.7%
Pt	Prosper-Tetonka complex	2	0.9	0.9%
Te	Tetonka silt loam	4	18.9	20.8%
Totals for Area of Interest			91.1	100.0%

Description

Land capability classification shows, in a general way, the suitability of soils for most kinds of field crops. Crops that require special management are excluded. The soils are grouped according to their limitations for field crops, the risk of damage if they are used for crops, and the way they respond to management. The criteria used in grouping the soils do not include major and generally expensive landforming that would change slope, depth, or other characteristics of the soils, nor do they include possible but unlikely major reclamation projects. Capability classification is not a substitute for interpretations that show suitability and limitations of groups of soils for rangeland, for woodland, or for engineering purposes.

In the capability system, soils are generally grouped at three levels-capability class, subclass, and unit. Only class and subclass are included in this data set.

Capability classes, the broadest groups, are designated by the numbers 1 through 8. The numbers indicate progressively greater limitations and narrower choices for practical use. The classes are defined as follows:

Class 1 soils have few limitations that restrict their use.

Class 2 soils have moderate limitations that reduce the choice of plants or that require moderate conservation practices.

Class 3 soils have severe limitations that reduce the choice of plants or that require special conservation practices, or both.

Class 4 soils have very severe limitations that reduce the choice of plants or that require very careful management, or both.

Class 5 soils are subject to little or no erosion but have other limitations, impractical to remove, that restrict their use mainly to pasture, rangeland, forestland, or wildlife habitat.

Class 6 soils have severe limitations that make them generally unsuitable for cultivation and that restrict their use mainly to pasture, rangeland, forestland, or wildlife habitat.

Class 7 soils have very severe limitations that make them unsuitable for cultivation and that restrict their use mainly to grazing, forestland, or wildlife habitat.

Class 8 soils and miscellaneous areas have limitations that preclude commercial plant production and that restrict their use to recreational purposes, wildlife habitat, watershed, or esthetic purposes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher