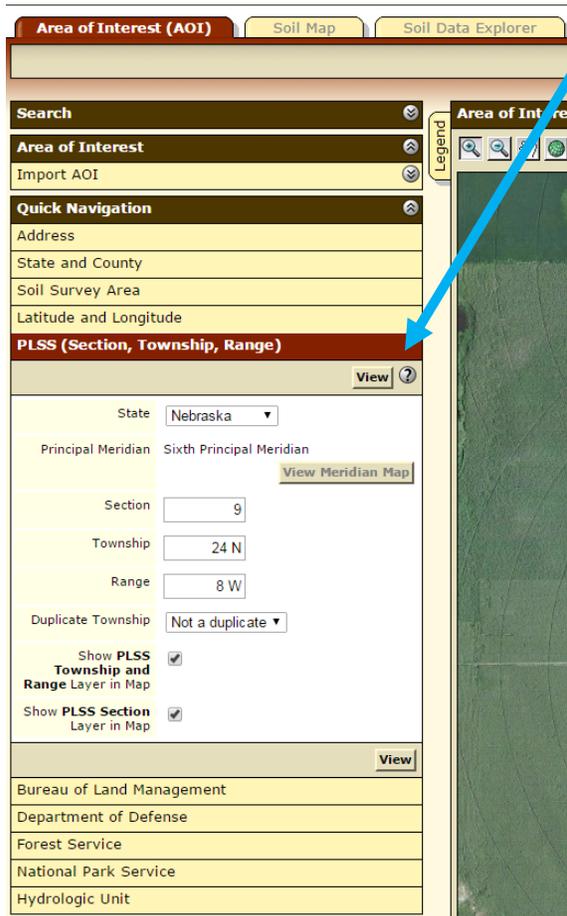


Web Soil Survey How-To

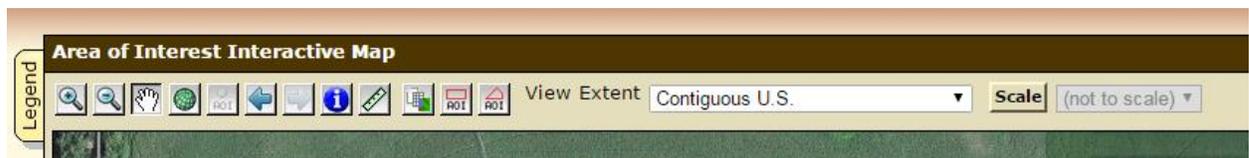
1. Go to <http://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx>
2. On the menu on the left, under the Area of Interest (AOI) tab, click on PLSS (Section, Township, Range)



The screenshot shows the 'Area of Interest (AOI)' tab selected in the top navigation bar. Below it, the 'PLSS (Section, Township, Range)' dropdown menu is open, displaying a 'View' button with a question mark icon. The form fields are filled with: State: Nebraska, Principal Meridian: Sixth Principal Meridian, Section: 9, Township: 24 N, Range: 8 W, and Duplicate Township: Not a duplicate. There are also checkboxes for 'Show PLSS Township and Range Layer in Map' and 'Show PLSS Section Layer in Map', both of which are checked. At the bottom of the form, there is another 'View' button. The background shows a satellite map of a field.

- a. Pick Nebraska
- b. Enter the section number: numbers less than 10 do not need a 0 in front. Use 9 instead of 09
- c. Enter Township: Include N after the number with or without a space in between. ex. 24N or 24 N
- d. Enter the Range: Include W, same format as for Township
- e. In the Duplicate Township dropdown select "Not a duplicate"
- f. Click View in the top or bottom right corner of the PLSS dropdown menu

3. Use the tools at the top of the map to zoom, navigate the map to the quarter you want, and to draw the area of interest (AOI) for the given application.



- a. To draw irregular shapes pick the AOI button on the right.



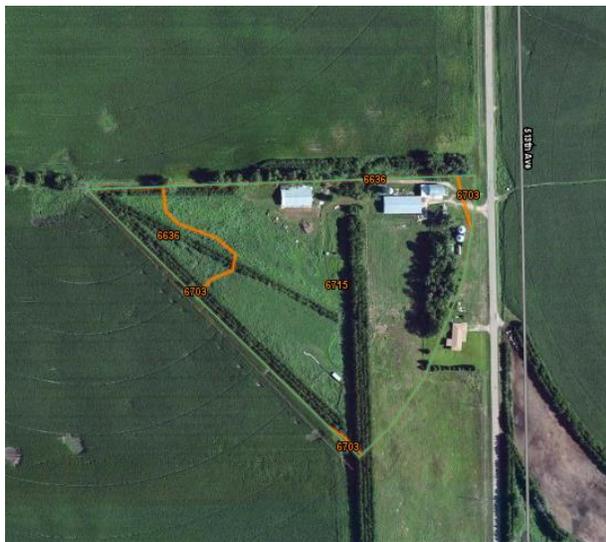
b. Outline your AOI



Outline

Selection

4. Navigate to the Soil Map tab, where the soil map and breakdown of soil types for the AOI will be displayed.



Soil map

Area of Interest (AOI) **Soil Map** Soil D

Search

Map Unit Legend

Antelope County, Nebraska (NE003)

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
6636	Boelus loamy fine sand, 0 to 2 percent slopes	1.5	10.7%
6703	Thurman loamy fine sand, 2 to 6 percent slopes	0.2	1.2%
6715	Thurman-Valentine complex, undulating	12.4	88.1%
Totals for Area of Interest		14.0	100.0%

Legend

Soil types

5. Using the Map Unit Legend, select each of the options in the Map Unit Name column to find the land classification. Find the Interpretive groups, *Land capability classification (irrigated)*, and the number listed (listed as a number and letter such as 3a).

Area of Interest (AOI) **Soil Map** Soil D

Search

Map Unit Legend

Legend

Antelope County, Nebraska (NE003)

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
6636	Boelus loamy fine sand, 0 to 2 percent slopes	1.5	10.7%
6703	Thurman loamy fine sand, 2 to 6 percent slopes	0.2	1.2%
6715	Thurman-Valentine complex, undulating	12.4	88.1%
Totals for Area of Interest		14.0	100.0%

Interpretive groups

Land capability classification (irrigated): 3e
Land capability classification (nonirrigated): 3e
 Hydrologic Soil Group: B
 Ecological site: Sandy (R102CY054NE)
 Other vegetative classification: Sand (G102CY300NE)
 Hydric soil rating: No

- a. The number listed here is the Land Classification that will be used for the ranking criteria. (For this example, the other two map units were classified as 4.)
- b. Using the Percent of AOI and the points awarded by classification in the ranking sheet, calculate the points to be awarded. Use the Percent of AOI as a ratio of the land area. The first map unit takes up 10.7% of the land so you will use 0.107

Area of Interest (AOI) **Soil Map** Soil D

Search

Map Unit Legend

Legend

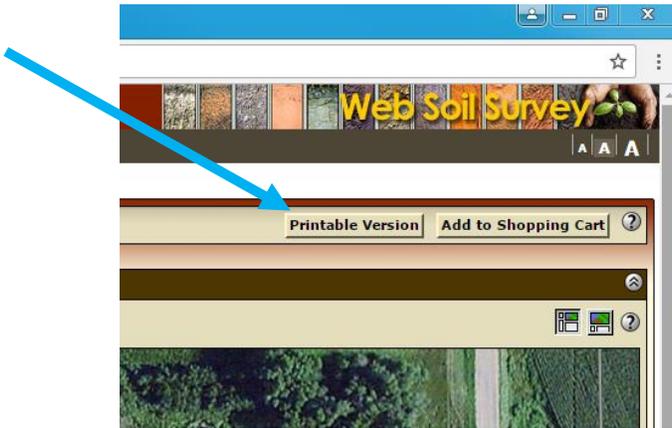
Antelope County, Nebraska (NE003)

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
6636	Boelus loamy fine sand, 0 to 2 percent slopes	1.5	10.7%
6703	Thurman loamy fine sand, 2 to 6 percent slopes	0.2	1.2%
6715	Thurman-Valentine complex, undulating	12.4	88.1%
Totals for Area of Interest		14.0	100.0%

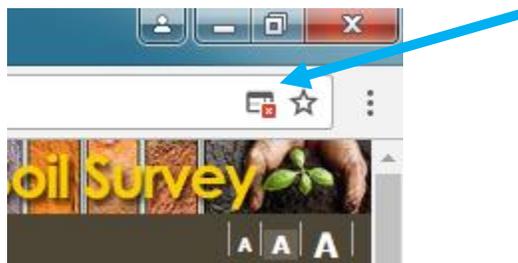
- c. Multiply the ratio of land area by the points allotted to each classification

9. Web Soil Survey Classification Points – Irrigation capability class will be determined on an area weighted average of each land classification by utilizing the USDA-NRCS Web Soil Survey Program.					
a. Land Classification 1	_____	% X	+30 pts =	_____	
b. Land Classification 2	_____	% X	+25 pts =	_____	
c. Land Classification 3	0.107	% X	+20 pts =	2.1	
d. Land Classification 4	0.893	% X	+15 pts =	13.4	
e. Land Classification 5	_____	% X	+10 pts =	_____	Sub Total
f. Land Classification 6-8	_____	% X	+ 0 pts =	_____	15.5

6. Print off the map and map unit table by clicking the Printable Version button in the upper right corner of the window.



- a. You will need to allow pop-ups to view the printable map. A dialogue box will ask you to allow pop-ups, or you will have to allow them by clicking the pop-up blocker in the address bar.



- b. The printable version will either open a new tab or a new window. Print the map and table off, and add it to the applicant's file.

What If?

Stream Drainage (No. 10 on the ranking criteria)

The presence of stream drainage is also determined by the web soil survey. Designated waterways will be highlighted with a blue line on the Web Soil Survey such as in the example below. Even if it look like there is drainage in the parcel, only count it if it has been highlighted.



If there is a confluence or separate streams within an AOI they are to be counted as more than one, the total number does not matter.



Confluence



Separate streams

Multiple land classifications

Occasionally multiple soil types will be listed under than same map unit name (see Step 5 above). When this is the case, give the Percent of AOI according to how many different interpretive groups there are (so if there are two different interpretive groups, divide by 2).

Map Unit Legend			
Holt County, Nebraska (NE089)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
4498	Dunday loamy sand, 0 to 3 percent slopes	0.0	0.1%
4542	Els-Ipage complex, 0 to 3 percent slopes	4.8	19.0%
4641	Ipage fine sand, 0 to 3 percent slopes	4.6	18.5%
4650	Ipage loamy fine sand, 0 to 3 percent slopes	0.4	1.7%
4792	Valentine fine sand, 3 to 9 percent slopes, moist	12.0	47.9%
4871	Valentine-Dunday loamy fine sands, 0 to 3 percent slopes	3.2	12.8%
Totals for Area of Interest		25.0	100.0%

These two map units both have two soil types listed in each. For the top one, both soil types have the same land classification and so 19% still goes to that classification. For the bottom one, each soil type has a different land classification.

Salinity, maximum in profile: Nonsaline (0.0 to 0.2 mmhos/cm)
Available water storage in profile: Low (about 5.2 inches)

Interpretive groups

Land capability classification (irrigated): 4e
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: A
Ecological site: Sands High P.Z. 22-25 P.Z. Provisional (R065XY055NE)
Other vegetative classification: Sand (G065XY300NE), Sands 17-22" P.Z. (065XY033NE_2)
Hydric soil rating: No

Description of Dunday

Setting

Landform: Interdunes
Down-slope shape: Concave
Across-slope shape: Linear
Parent material: Eolian sands

Typical profile

A - 0 to 18 inches: loamy fine sand
AC - 18 to 25 inches: loamy fine sand
C - 25 to 79 inches: loamy fine sand

Properties and qualities

Slope: 1 to 9 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Somewhat excessively drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95 to 19.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Salinity, maximum in profile: Nonsaline (0.0 to 0.2 mmhos/cm)
Available water storage in profile: Low (about 5.5 inches)

Interpretive groups

Land capability classification (irrigated): 3e
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: A
Ecological site: Sandy High P.Z. 22-25 P.Z. Provisional (R065XY054NE)
Other vegetative classification: Not suited (G065XY000NE), Sandy 17-22" P.Z. (065XY032NE_2)
Hydric soil rating: No

In this case, half of the 12.8% would go to each land classification. 6.4% would be Classification 4 and 6.4% would be Classification 3. See Step 6 to calculate the points awarded as normal.

No Land Capability Classification

Occasionally, the *land capability classification (irrigated)* is listed as *None* for a given map unit. When this is the only calculate the score based on the map units that do have land capability classifications. The reasoning behind this is that land that so poor that it should not be irrigated does not get a capability classification and so fewer points should be awarded.