



St. Louis County Survey Explorer

<http://gis.stlouiscountymn.gov/gisviewers/surveyexplorer.aspx>

Acronyms

CSMI: County Surveyor's Master Index

CPDB: Control Point Database

ESRI: Environmental Systems Research Institute (supplier of GIS software, web GIS, web mapping services and geodatabase management applications)

GIS: Geographic Information System

IE9: Internet Explorer 9

PLSS: Public Land Survey System

SE : St. Louis County Survey Explorer

SLC: St. Louis County

SLCTM96: St. Louis County Transverse Mercator 1996 coordinate system (US Survey Feet)

USGS: United States Geological Survey

What is the SE?

The SE is a web map designed to show the survey record resources that are available online and/or in the offices of the SLC Land Survey Division.

Browser Compatibility

The SE is designed to be cross browser compatible and is optimized for Google Chrome.

Navigation and Interaction

Scrolling with the middle mouse button will zoom in and out. Clicking and dragging will pan around the map.

Click on an object to see what information is available.

Map Performance:

For best performance when interacting with the map, allow the features on the map to fully draw before interacting (Panning, zooming, identifying, etc.).

Utilizing the labeling features can slow down map performance.

General Search Bar

A variety of searches can be performed in the search box:

- Search by Address
- Search by Place Name
- Search By Zip Code, County,



(This search is based on the arcgisGeocoder search engine)

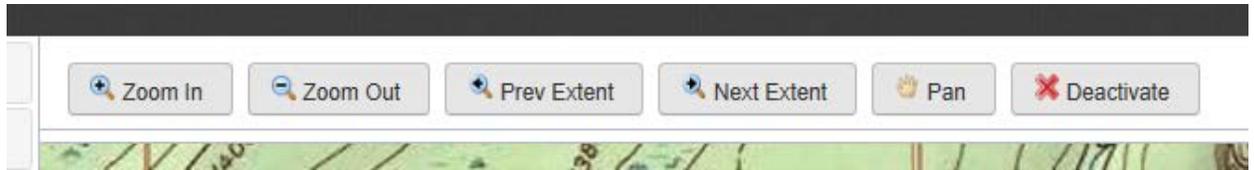
Basemap options

There are 8 basemap options available in the SE. Select a basemap to change the view

- ESRI Streets (default): Streets basemap published by ESRI
- ESRI Imagery: Imagery basemap published by ESRI
- ESRI Hybrid: Hybrid of street and imagery basemap published by ESRI
- USGS Topo: USGS Topographic basemap published by ESRI
- 1 Meter Hillshade: This basemap contains the hillshade relief map built based on the 2011 LiDAR data. See <http://www.mngeo.state.mn.us/chouse/elevation/lidar.html> for more information
- 2013 Pictometry: Aerial imagery based on the 2013 Pictometry flight. See <http://www.stlouiscountymn.gov/LANDPROPERTY/Maps/WebServicesGIS.aspx> for more information
- 2016 Pictometry: Aerial imagery based on the 2016 Pictometry flight. See <http://www.stlouiscountymn.gov/LANDPROPERTY/Maps/WebServicesGIS.aspx> for more information
- 1939 Imagery: Mosaic of georeferenced 1930's era air photos. Original scanned images can be found on the MnDNR Landview website. http://www.dnr.state.mn.us/maps/landview/index.html?layers=lakes+roads+cent_popplt1

Navigation Tools

To see the navigation tools, click on the  at the top of the map.



Use the navigation tools to pan, zoom in and out and zoom to different extents. The deactivate button only deactivates the zoom tools you are using, the pointer icon will remain the same, but the identify tool will be active.

These tools are not needed to navigate the map. By default, scrolling with the middle mouse button will zoom in and out. Clicking and dragging will pan around the map.

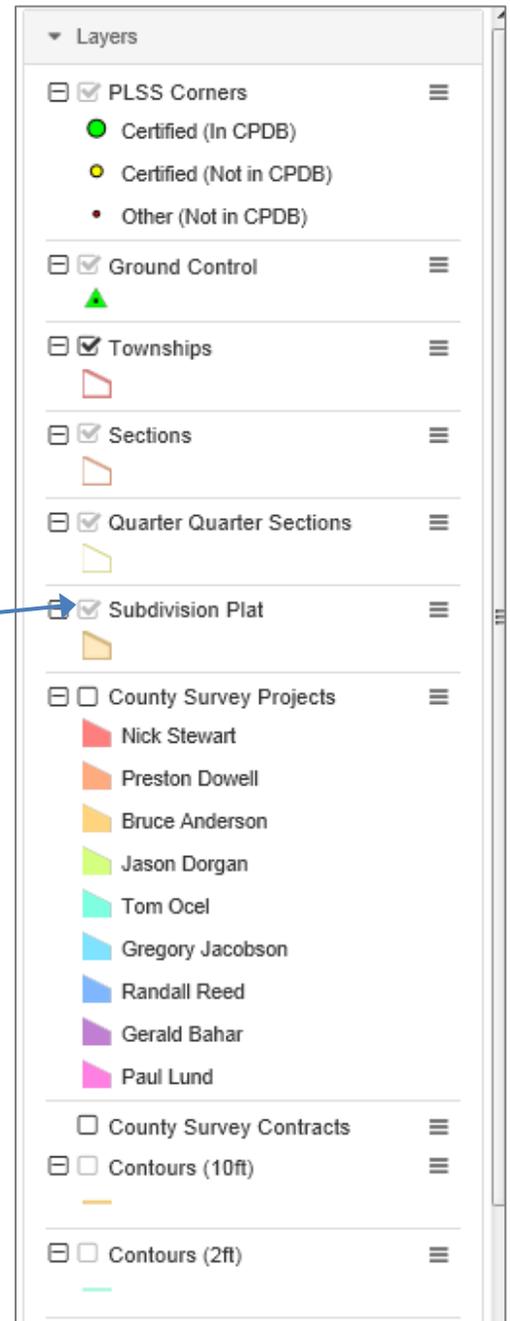
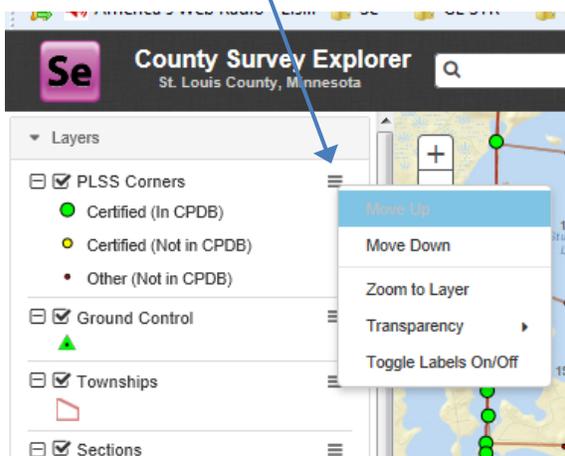
Layers Tool

Layers available for viewing and identification.

Layers are only visible at predefined scales. Zoom into an area to get more information.

Use the checkboxes to turn the layers on and off.

Layer properties can be adjusted by clicking the layer control button



Layer List:



PLSS Corners are classified in 3 categories:

PLSS Corners with Certificate of Government Corner Location which are contained in the CPDB. Coordinate values shown are in SLCTM96.

PLSS Corners with Certificate of Government Corner Location which are not contained in the CPDB.

Other PLSS corners which do not have Certificates of Government Location.

If there is a valid document number, turn labels on to display it.



Ground Control per the CPDB.



Township Polygons



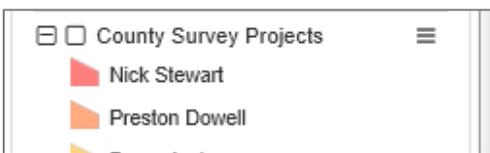
Section Polygons



Quarter-Quarter Sections Polygons



Subdivision Plat Outlines



Current Land Survey Division Projects



Current Land Survey Division Re-Monumentation Contracts



LiDAR Derived Contour Data
(see <http://www.mngeo.state.mn.us/chouse/elevation/lidar.html>)

Bookmarks Tool

Use the bookmark tool to zoom to predefined extents. Custom bookmarks can be saved for future use.

Identify Tool

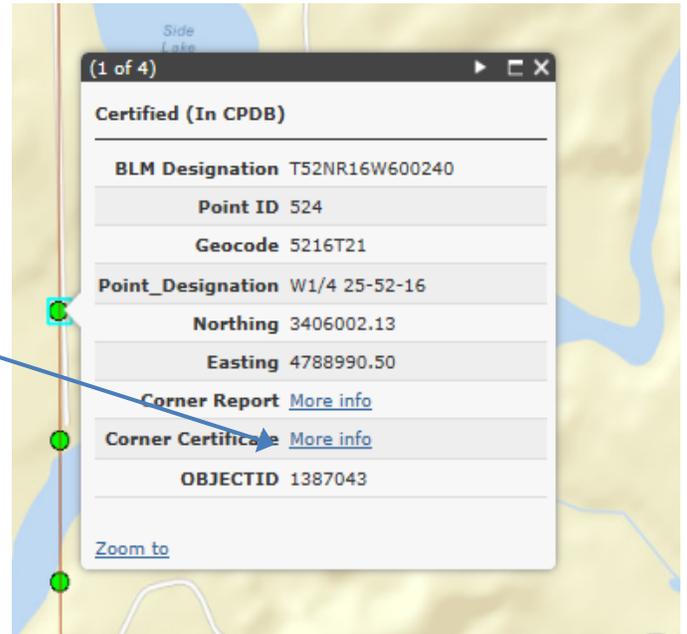
By default, all visible layers are identifiable. To identify features on a single layer, select the layer in the pulldown. By clicking on an identifiable feature in the map, a pop-up window will provide more information about the feature.

If more than 1 feature is selected, click on the ► to see other selected features.

- Note: arrow is in the upper right corner of the pop-up window

If a related record is available online, it will show up as a hyperlink in the pop-up window.

- Note: Not all records are available online. If an “Error Encounter Recovering File” message is returned, a copy of the record can be found on the County Surveyors Office.



Search Tool

Search for parcels based on the SLC Parcel Tax Information Lookup.

“An Address” Search: Search Parcels by address. For more search results use part of the address; ie enter 'Skyline' for all parcels with Skyline in the address.

- Do not include words like Road, Street, Avenue, etc. in the search. If the search is too specific results may not be generated.

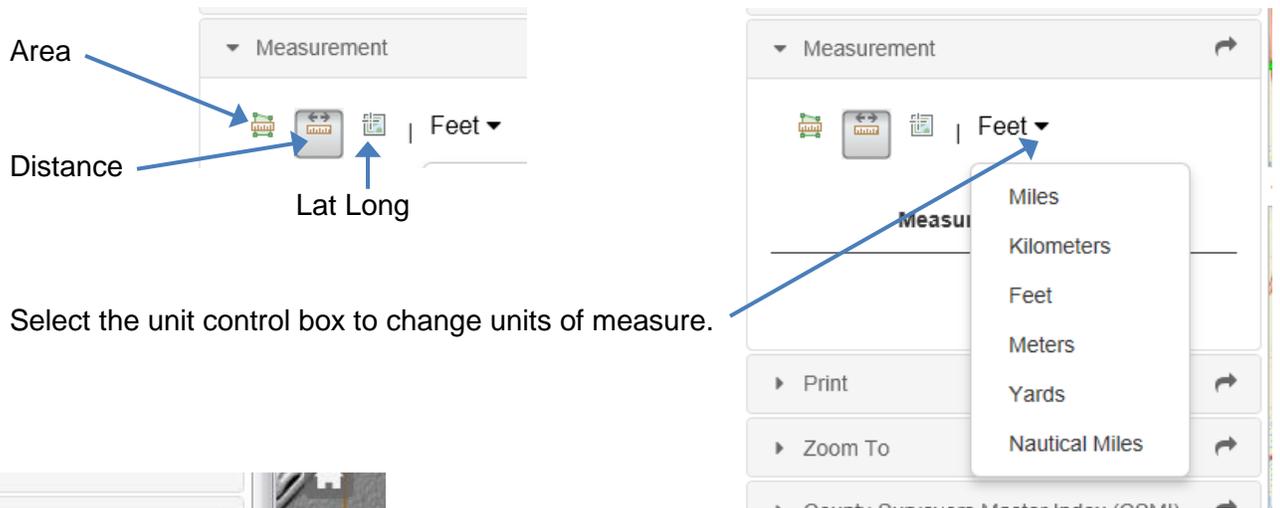
“A Parcel Identification Number (PIN)” Search: Enter St. Louis County PIN per the tax statement.

- A standard SLC PIN will have the following format
 - 000-0000-00000

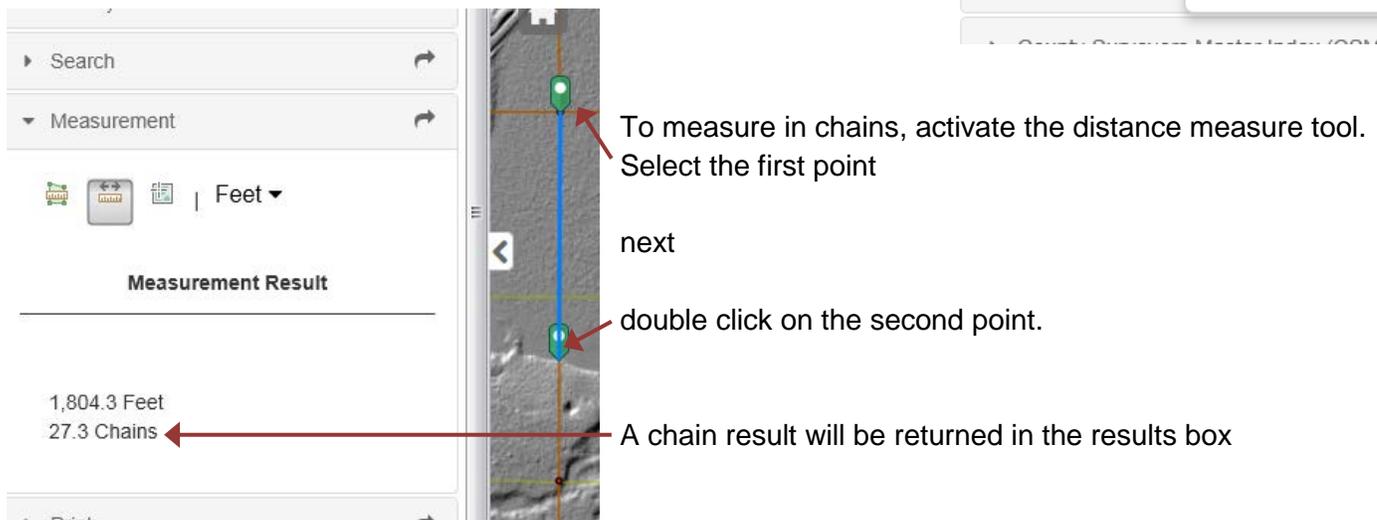
When a search is completed, the map will zoom to the extents of the search. Select a result from the table given in the search tool to zoom to the selected parcel.

Measure Tool:

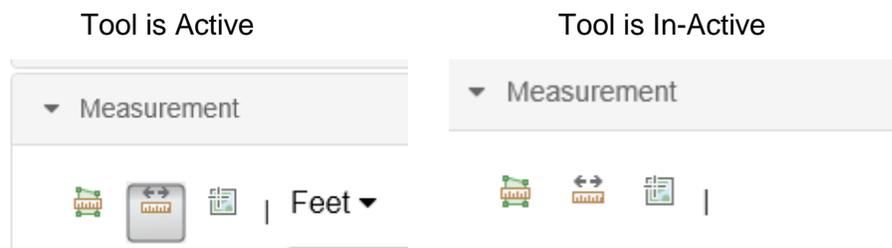
Activate the measure tool to measure different kinds of geometry.



Select the unit control box to change units of measure.



To deactivate the tool, unselect the active measurement tool by clicking on it.

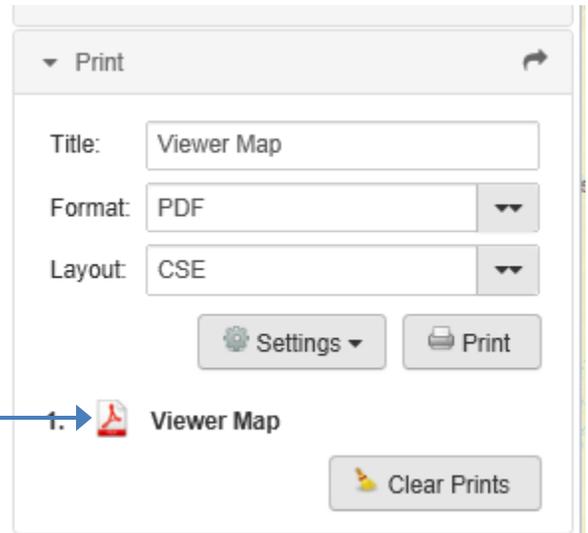


Print Tool

Create custom exports of a map in a variety of formats. The Default layout “CSE” will generate a border and map scale.

A variety of settings can be adjusted using the settings button.

When the export is complete, a hyperlink will appear in the results table.



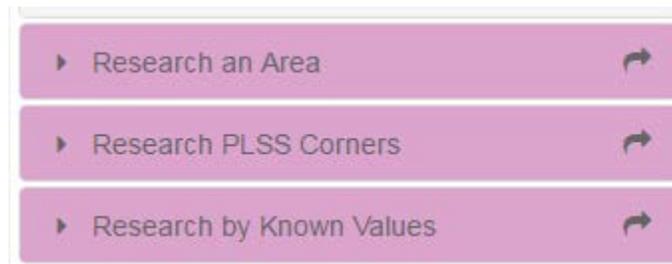
The screenshot shows the Print Tool interface. At the top, there is a 'Print' header with a dropdown arrow and a refresh icon. Below the header, there are three input fields: 'Title' with the value 'Viewer Map', 'Format' with a dropdown menu set to 'PDF', and 'Layout' with a dropdown menu set to 'CSE'. Below these fields are two buttons: 'Settings' with a gear icon and a dropdown arrow, and 'Print' with a printer icon. At the bottom of the interface, there is a 'Clear Prints' button with a trash can icon. Below the 'Clear Prints' button, there is a list of print jobs. The first job is 'Viewer Map', which has a document icon and a number '1' next to it. A blue arrow points from the text 'a hyperlink will appear in the results table.' to the '1' next to 'Viewer Map'.

Zoom To Tool

The zoom to tool will highlight a known section or parcel and zoom the map to its extents. Enter known values into the corresponding boxes to zoom to a section or parcel. Click the clear button to clear the highlights.

Research Tools: (UPDATED, previously called CSMI Tool and PLSS Corner Report)

There are 3 additional tools available for researching the SLC Land Survey Divisions indexes and records.



The “Research an Area” tool (previously called CSMI tool) is designed to query the SLC CSMI based on Township, Range and Section and will provide a hyperlink to a related record if it is available online. To ensure all indexed records in an area are returned, the tool will select the section(s) entered along with all of the surrounding sections

CSMI Background:

Historically, completing survey research in the SLC Surveyor's Office has been a daunting task due to the variety and quantity of survey records spanning more than 150 years. Visiting multiple offices in order to search multiple record sources and indexes can be very time consuming. In 2001 the SLC Surveyor's Office undertook the task of indexing these records in a single database with the goal of increasing employee efficiency and productivity. The results have been positive. Internal quality control processes and testing have helped demonstrate the reliability of the index for internal and external stakeholders.

To date, over 95,000 lines of data have been entered into the database.

The CSMI is a work in progress. The index does not comprise all of the records available in the SLC Surveyor's Office. Other records are available in the SLC Surveyor's Office and it is the responsibility of the end user to search all available records.

Data Entry Process:

The process for entering data into the CSMI was to visually inspect each record and add identifiable data into the corresponding data field. If there was an existing reliable index, it was transcribed. If identifiable, the PLSS corner that a survey record was related to was entered and the lowest Section, Township and Range was entered in accordance with the standard SLC corner index system. Please note that the data entered is not consistent from record to record (i.e. not all data fields have a value for each record). Each record is unique and should be analyzed on its own.

See the following hyperlinks for more information.

Full PDF of CSMI:

<http://www.stlouiscountymn.gov/Portals/0/Library/Land-Property/Land-Survey/research-indexes/LandSurvey-Master-Index-byTRS.pdf>

SLC County Surveyor website

<https://www.stlouiscountymn.gov/departments-a-z/public-works/county-surveyor>

Using the Research an Area Tool (UPDATED)

If the Township Range and Section are known, enter them into the corresponding boxes in the tool.

Next, click the “**Select by TRS**” button.

Research an Area

Full PDF of CSMI

Use the Select by Polygon button to create a custom query by drawing a polygon on the map

Select by Polygon

Use the Select By TRS button after entering a known Township, Range and Section to create a custom query

Township Range Section

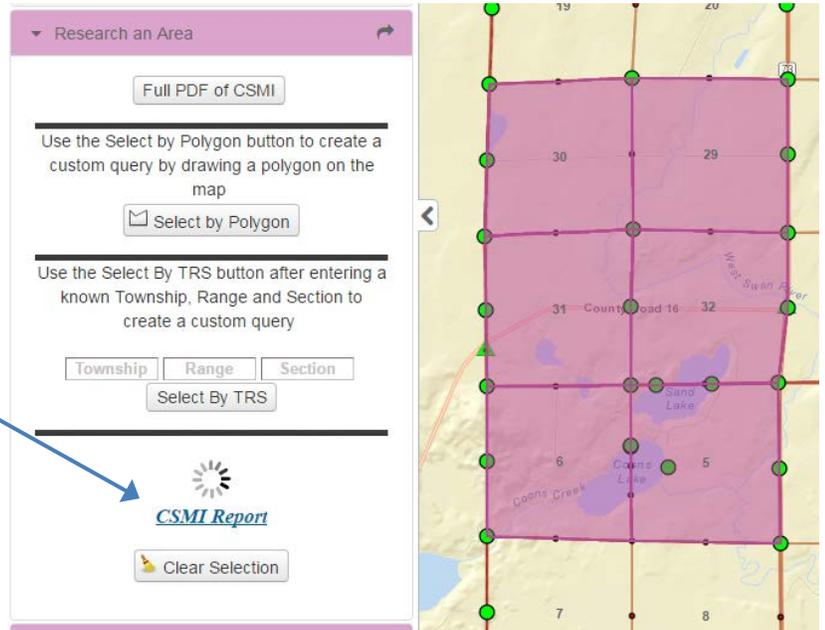
Select By TRS

No Sections Selected

Clear Selection

The tool will then select the section entered along with all of the surrounding sections. A hyperlink for a **“CSMI Report”** will now appear above the **“Clear Selection”** button.

Select the **“CSMI Report”** hyperlink and wait while the report generates and loads (loading wheel will be animated while the report is generated). The report typically takes 30 seconds to load. When the report is ready, it will open in another window.

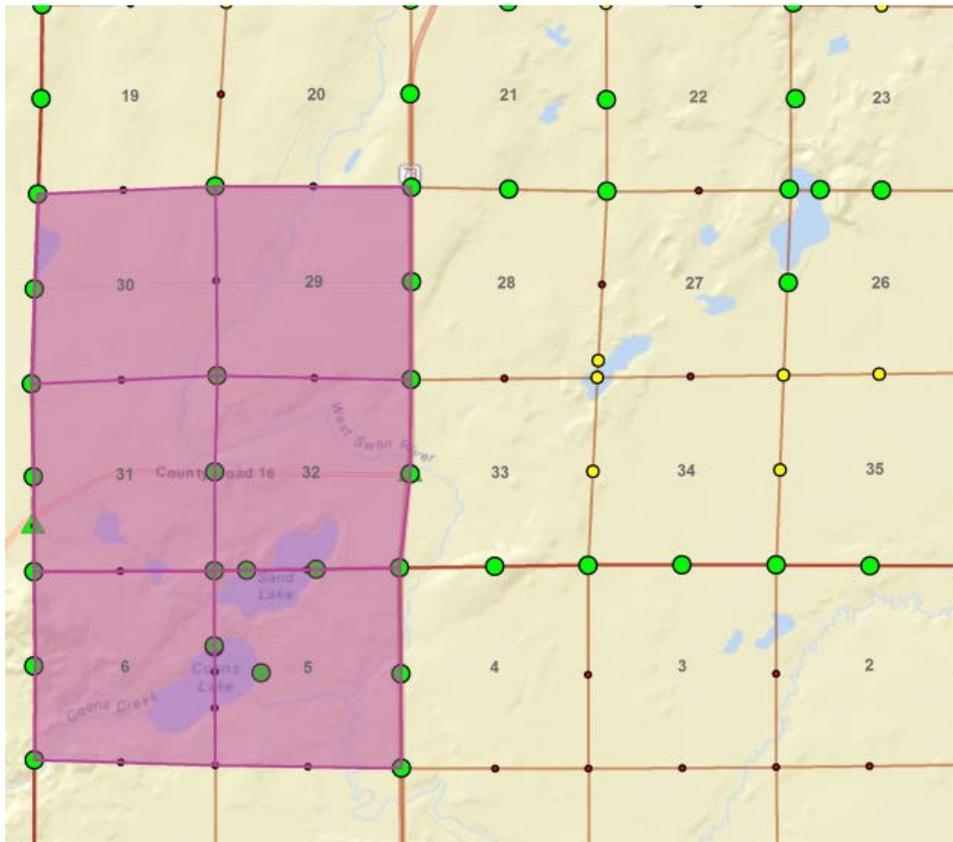


NOTE: Popup blocking may need to be disabled to allow this tool to work properly.

NEW FEATURE: A report will appear with a graphic overview of the sections selected along with a list of values returned in the report.

County Surveyor's Master Index

For information on other records not included in this report, see the [Full PDF of CSMI](#).



Values queried and included in this report:
 TRS: 552105, 552106, 5521XX, 562129, 562130, 562131, 562132, 5621XX

Look through the CSMI report to see the indexed information in the queried area.

County Surveyor's Master Index

Total Records in this Report: 89

For information on other records not included in this report, see the [Full PDF of CSMI](#).

Book	Page	Cabinet	Column	Row	Drawer	File No.	Road Name	Client	PLS No.	Date	Plat Name	Remarks	Low Res Image	High Res Image
					Township: 56		North	Range: 21		West	Section: UNK			
Location: SLC Surveyor's Office, Pike Lake and Virginia, MN														
Source: SLC Project Files														
-	-	-	-	-	-	123246	-	-	-	2014	-	Bunker Road/South Townline Rd/ Misc. Corners	-	-
Location: SLC Surveyor's Office, Pike Lake, MN														
Source: SLC Corner Cards														
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Location: SLC Surveyor's Office, Virginia, MN														
Source: SLC Mylars														
-	-	-	-	-	-	-	-	-	-	-	-	-	(1 Pages)	-
					Township: 56		North	Range: 21		West	Section: 5			
Location: SLC Surveyor's Office, Pike Lake, MN														
Source: Ordlin Burkstrom Field Books														

Use the remarks column to get an idea of what the indexed record may contain. If a related record is available online, a hyperlink will appear under the Low Res Image and/or High Res Image column. Select the hyperlink to access the record.

*The Adobe plugin that many browsers use will open the related records in the same window. Save the CSMI report to a local file and open hyperlinks from the local file.

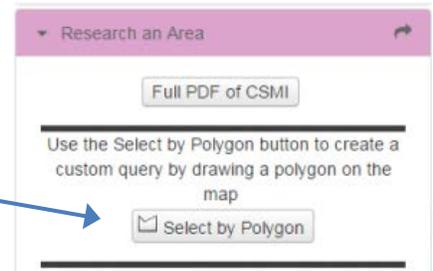
Some browsers will allow you to right-click and open the hyperlink in a new window.

*High Res Images can be very large (100-500mb). Open the Low Res image first to see if it contains the information needed.

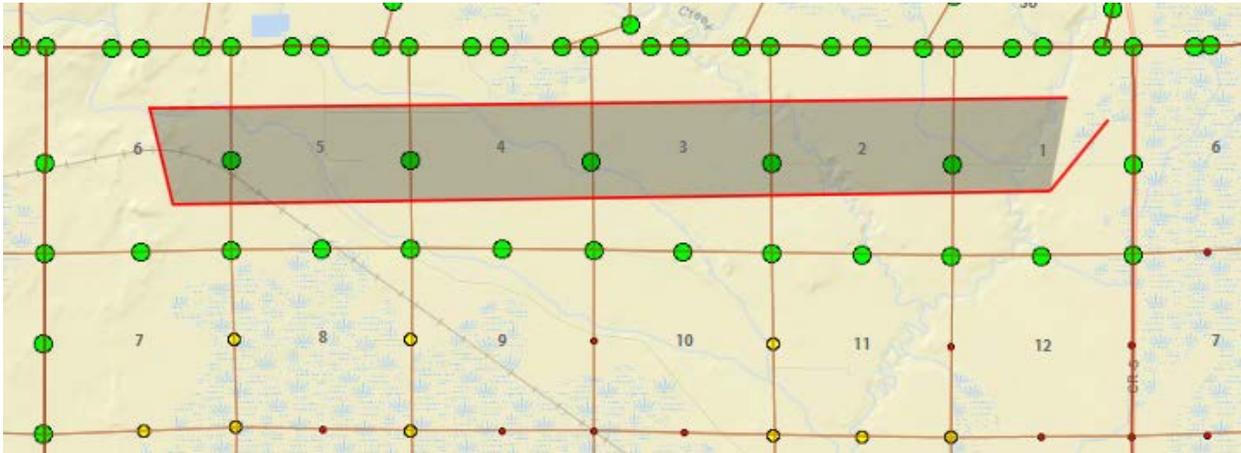
*Not all records have been scanned. Check back regularly for updates to what is available online.

Selecting Multiple Sections

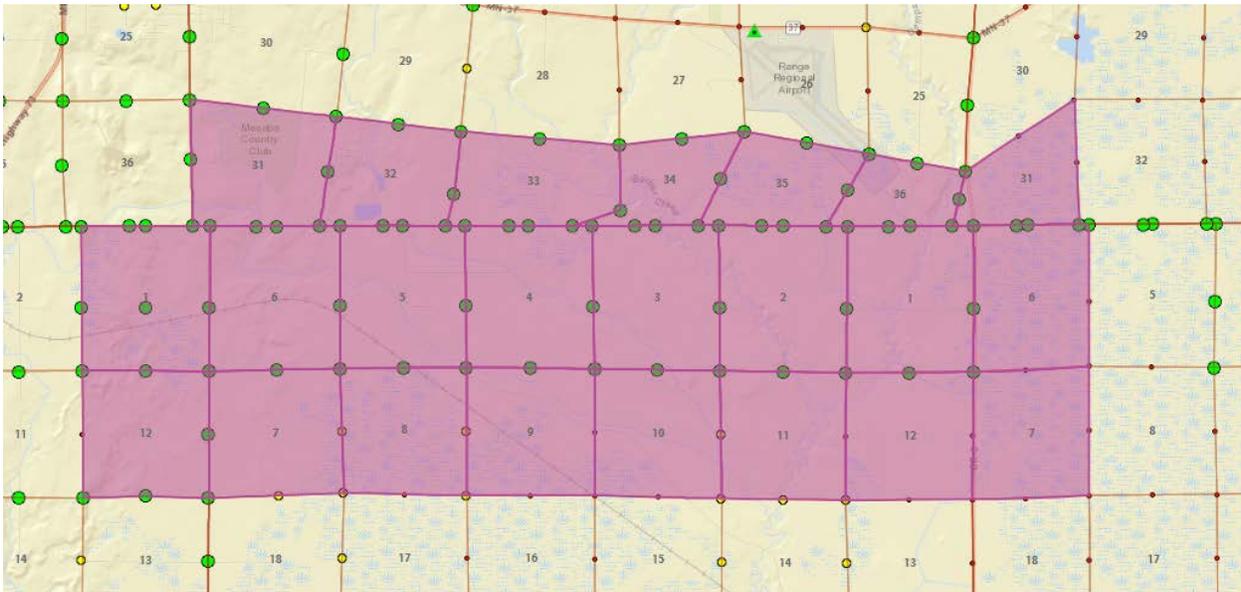
To select one or more sections at a time, use the polygon **“Select by Polygon”** button.



Draw a polygon **INSIDE** the sections to be queried by clicking on the map.



Finish the polygon by double clicking. The tool will then select the appropriate sections entered along with all of the surrounding sections.



The **“CSMI Report”** hyperlink will now be available above the **“Clear Selection”** button.

Research PLSS Corners Tool (Updated)

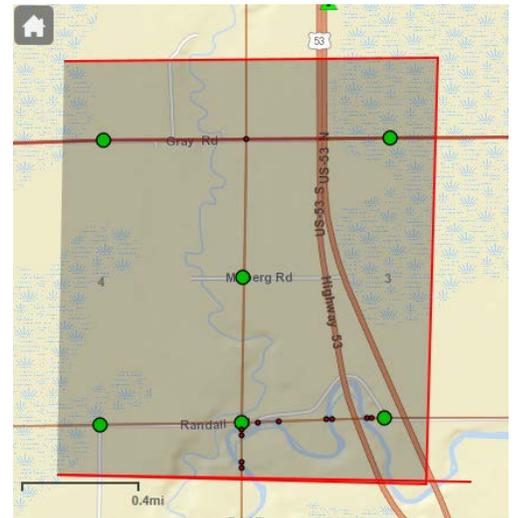
This tool is designed to query current and previous corner certificates which are indexed in the office of the County Surveyor and available via the County Recorder's office.

To use the tool click the **"Select by Polygon"** button in the Research PLSS Corners tool.

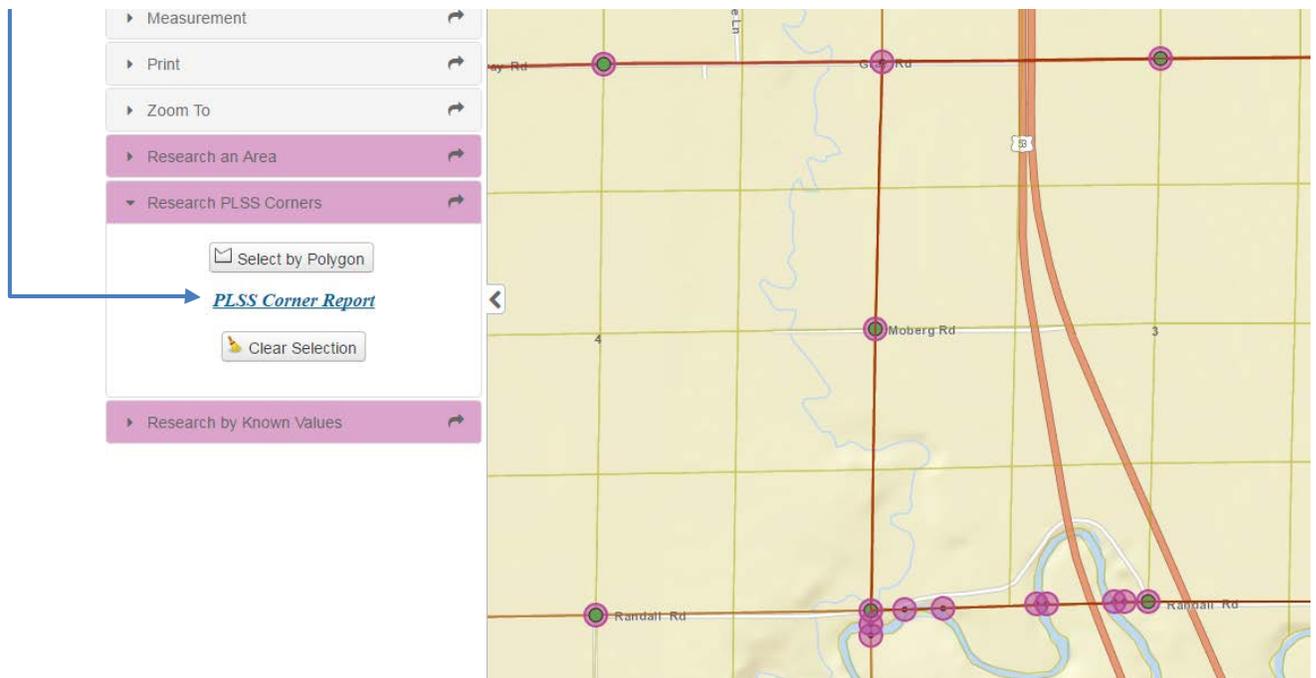


Draw a polygon **AROUND** the corners to be queried.

Finish the polygon by double clicking. The tool will then select the appropriate PLSS corners.



A **"PLSS Corner Report"** hyperlink will now be available under the "Select by Polygon" button



Click on the “**PLSS Corner Report**” and wait while the report generates and loads (loading wheel will be animated while the report is generated). The report typically takes 30 seconds to load. When the report is ready, it will open in another window.

NOTE: Popup blocking may need to be disabled to allow this tool to work properly.



Corner Report

The corner report will now return available information about the corners selected. If an online image of a record is available, it will be shown with a hyperlink.

- BLM Designation: T54NR17W400600
 Point Designation: SW 03-54-17
 Geocode: 5417E13
 Northing: 3487628.792
 Easting: 4746255.362
[Corner Certificate #: 01091653](#) Year: 2006
[Corner Report](#)
 Point ID: 1496
[Previous Certificate #: 00470679](#) Year: 1989

- BLM Designation: T54NR17W414600

Research by Known Values Tool (New)

This tool was developed for end users that know and understand the intricacies of the CSMI and wish to query a specific Township Range and Section combination. Refer to pages 8-9 of this guide along with the first 6 pages of the [Full CSMI Report](#) prior to utilizing this tool. NOTE: This tool **IS NOT** intended to replace the Research and Area tool. It is intended to allow end users that are looking for specific records to more efficiently find those records.

To use the tool click the “Select a Section” button in the Research by Known Values tool.

Next, select the section you wish to query. The section will be highlighted in the Se and the CSMI Custom Query tool will open. Read and agree to the disclaimer before proceeding.

The Custom Query tool will populate the Section, Township and Range fields and show the results of your query in a grid view at the bottom of the page.

General notes on navigating the Custom Query tool

- The grid view can be sorted by clicking on the column headings.
- If there are multiple pages to the grid view, a footer will appear with page numbers and navigation options.
 - Click on the page numbers to navigate to the different pages.
- If an image of the record is available, click on the image hyperlink to view it.
- If you wish to save a report of your selected values, select the “Click Here for CSMI Report” button.
- If you are looking for Private Surveys only, select the “Check to query private surveys only.” option.
 - The grid view will disappear. To view the results, click the browse results button.
- If you are looking for a specific record you can use the filter drop downs to select single values based on what is contained in the CSMI.
 - When a value is selected for additional filtering, the grid view will disappear. To view the results, click the browse results button.
- Fields which do not have drop downs are “auto-suggest” fields that are populated from the CSMI data
 - Enter a minimum of 3 characters to get suggestions.
- The filters and auto-suggest fields will only return single values from the CSMI data fields. To get multiple values in a field, create multiple reports.
- Selecting the “Clear Selection” button will reset all of the filters and you can start a new query.

