Getting Started

How to access the map – tips & tricks
How to get started
How to use the main toolbar

Find

Search for parcels (Address, PIN, Lease PIN)
Search for Sub-division Plat
Search for PLSS
Identify parcels on the map
Search address points on the map

More information

Subscribe to Email Updates
Getting Help and Giving Feedback

FAQ

FAQ about data and how to use it
FAQ about address searching
FAQ about XY coordinates
FAQ about Printing
FAQ about display

Explore the map

Navigation tools
Overview map
Changing the Basemap
Layers and map contents
Legend
Draw and Measure
Bird’s Eye View
Printing
Spatial Bookmarks
Share
Viewing the map scale and coordinates
Using the mouse
Using the keyboard

Mobile County Land Explorer

How to access
Mobile functionality
How to get support
FAQ about Location Services

Return to Main Menu

https://gis.stlouiscountymn.gov/landexplorer/
How to access the map – tips & tricks

System requirements

If you have trouble loading the web map application, check for an Ad Blocker or Pop-up Blocker on your web browser. If an Ad Blocker exists or if the Pop-up Blocker is enabled, try adding gis.stlouiscountymn.gov as a trusted site.

Browser History

Due to the nature of web browsers, the functionality of web maps may be affected by the browser history. If the website is not displaying correctly, or not showing changes that were recently applied by site administrators, you may need to refresh the browser and/or delete browser history. The method for deleting browser history varies with each browser. To delete browser history from Internet Explorer, go to the upper right hand corner of the browser, Tools>Internet Options. From the General tab, click ‘Delete’ under the Browsing History section.

Still having trouble getting the site to work properly?

Try refreshing the web browser and waiting for it to load completely. The site is designed to work on desktop or mobile devices. Access the application from a web browser on desktop and mobile. Supported web browsers include: Chrome, Firefox, Safari 3+, Edge, Internet Explorer 9+, iOS Safari, Chrome for Android. Ensure to check your web browser has received the most recent updates.

How to get started

Access the County Land Explorer from the St. Louis County website at www.stlouiscountymn.gov or directly from the following link: www.stlouiscountymn.gov/explorer/

Additional resources from St. Louis County, MN can also be accessed from this document:

Maps, Applications, and Geospatial Data Services https://www.stlouiscountymn.gov/departments-a-z/planning-development/enterprise-gis
Land Use https://www.stlouiscountymn.gov/departments-a-z/planning-development/land-use
Land Survey https://www.stlouiscountymn.gov/departments-a-z/public-works/county-surveyor
Parcel Information Lookup https://www.stlouiscountymn.gov/departments-a-z/auditor/property-tax-payments/payments-and-lookup-your-taxes
How to get started

The County Land Explorer initially displays at the St. Louis County scale. Access the tools from the main toolbar or explore the map using the mouse or keyboard.

*Note: if the County Land Explorer appears differently from the above example and you are experiencing difficulty, you may need to adjust the resolution of your web browser.

https://gis.stlouiscountymn.gov/landexplorer/
Navigation

The navigation toolbar is located on the upper left side of the map. These tools are static on the map viewer and cannot be moved around by the user. For additional tips on how to use these tools, refer to Using the mouse section. The Overview map is located in the lower right corner of the map.

- **Zoom to St. Louis County** – This allows for a quick method to zoom the map to the entire county.

- **Previous/Next Extent** – This allows for zooming back to the previous extent or to the next extent.

- **Zoom-in and Zoom-out to defined extent** – Use these tools to zoom in to or out from a location on the map to preset scales.

- **GeoLocate disabled** – Click to Enable the Zoom to your current location in the web browser. The GeoLocate functionality requires the user to select to allow gis.stlouiscard.com to know your location.

- **GeoLocate enabled** – Location services are enabled in the web browser. To disable Location services, click the GeoLocate button again.

**Find my Location** – When the GeoLocate button is selected, you may need to authorize the site to access your location as shown below. The web browser will likely prompt you for allowing or blocking this functionality as in the following examples. *See instructions on the following pages for how to manage location settings in the web browser for Google Chrome or Internet Explorer.

*Notice: The location services in the web browser are approximate. Accuracy of Location Services will vary based on how the application is accessed, to learn more, go to FAQ about Location Services.
Manage location settings in the web browser

**Google Chrome**

From the menu in the upper right corner, select settings. A new tab in the Chrome browser will open for Settings. Select to show advanced settings.
Manage location settings in the web browser

Google Chrome

Settings

Content settings

Location

- Allow all sites to track your physical location
- Ask when a site tries to track your physical location (recommended)
- Do not allow any site to track your physical location

Manage exceptions...

Geolocation exceptions

Hostname pattern

Behavior

Block

Allow

Web content

Font size: Medium

Page zoom: 100%

Learn more

https://gis.stlouiscountymn.gov/landexplorer/
Manage location settings in the web browser

Google Chrome

Manage Exceptions – with the option selected to ‘Ask when a site tries to track your physical location, the following message will alert when you utilize the Geolocate button. The user can change their settings by clicking the ‘Manage location settings’ from this pop-up.

Internet Explorer

Ensure the box to ‘Never allow websites to request your location’ is unchecked under the Privacy tab of the Internet options.
Other map features – lower right corner

**Overview map** – this feature offers a visual of the spatial extent of the map in relation to the geographic features surrounding that area.

- **Overview map minimized** – Located in the lower right corner of the map. The overview map is minimized by default. To expand the overview map select the arrow.

- **Overview map expanded** – Shows the current spatial extent of the map display as a shaded rectangle relative to the entire spatial extent of the base map service. The shaded box will move and change in size as the zoom level and spatial extent are changed on the map. Click the arrow to minimize the overview map.
Other map features – upper right corner

These tools are static on the map viewer and cannot be moved around by the user. To learn more about the Theme switcher, Address or Tax PIN search, Basemap switcher, or GovDelivery updates, see pages 9-11.

Theme Selection

The data in the County Land Explorer is now available to users by ‘theme’. The selected theme determines the data and associated searches available in the web map. The available data in the web map is listed in the Layer List from the main toolbar. The default theme is Cadastral. Currently, there are eight themes available to choose from.

The Cadastral is a fundamental collection of datasets pertaining to land ownership information in St. Louis County, MN. The Cadastral theme, intended to be used for discovering property and land information, includes the full range of cadastral features, i.e. Tax Parcels, Address Points, Public Land Survey System, Survey Control Points, Right of Way, Subdivision Plats, Lots, Blocks, Lease Sites, County and Community Boundaries. The other themes include the Cadastral data as a reference to the theme data.

FAQ about the Cadastral data

NOTICE: Some data available in the County Land Explorer are sourced from outside of the county.

<table>
<thead>
<tr>
<th>Theme</th>
<th>Theme Data</th>
<th>Associated Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Layers</td>
<td>All data from other themes</td>
<td></td>
</tr>
<tr>
<td>Aquatic Invasive Species</td>
<td>St. Louis County AIS funded projects, Trailer Boat Ramps, AIS lakes (classified and NOT classified)</td>
<td></td>
</tr>
<tr>
<td>Cadastral</td>
<td>Full Cadastral dataset: Tax Parcels, Address Points, Public Land Survey System, Survey Control Points, Right of Way, Subdivision Plats, Lots, Blocks, Lease Sites, County and Community Boundaries</td>
<td>Tax Parcel labels, Road Name labels, Administrative boundaries, Congressional and Commissioner Districts, Census, Full Cadastral, Public Lands, Elevation data (derived from LiDAR)</td>
</tr>
<tr>
<td>Environmental</td>
<td>Hydrography, FEMA Floodways, National Wetland Inventory, Watersheds</td>
<td></td>
</tr>
<tr>
<td>Market Sales and Value</td>
<td>Sales by Year, Sales by Type, Estimated Value</td>
<td></td>
</tr>
<tr>
<td>Recreation</td>
<td>Authorized ATV routes, Hunting Zones, Snowmobile Trails, Cross-Country Ski Trails</td>
<td></td>
</tr>
<tr>
<td>Road Construction</td>
<td>St. Louis County Road Construction Projects by type</td>
<td></td>
</tr>
<tr>
<td>Tax Forfeit Land Sales</td>
<td>Available and Auction Land Sales</td>
<td></td>
</tr>
<tr>
<td>Zoning and Land Use</td>
<td>St. Louis County administered zoning and land use, City-Township zoning and land use, Buffers</td>
<td></td>
</tr>
</tbody>
</table>
Address or Tax PIN search

This search toolbar is in the upper right corner of the web map interface. The search toolbar is based on St. Louis County Tax Parcel data and the Master Address Repository database maintained by the county. In other words, this search option is specific to St. Louis County. If searching by Tax Parcel, specify the PIN in the standard CVT-PLAT-PARCEL format. For example: 123-1234-12345. The PIN search will highlight the parcel. Alternatively, specify an address and the result will highlight the address point. For more information on search options, see the FAQ about address data and search options.

Basemap Switcher – Enables the ability to switch between basemaps. The available basemaps include Esri Streets*, Esri Imagery**, 2016 and 2013 County Imagery***, USGS Topo.

*The labeling component of the Esri Streets basemap is out of St. Louis County control. The labels used in the Esri Streets basemap is based on data managed by other sources. For more information click to read more about the Esri Streets basemap.

**It is possible to know the date or source of the Esri Imagery basemap. This imagery is often a composite of multiple sources and dates, varying by scale and location of the map. Typically, this imagery is from the summer season as indicated by leaves on deciduous trees. To determine the source and date of the imagery for your area of interest, click to get more information on the Esri Imagery basemap.

***The 2016 and 2013 County Imagery is aerial photography acquired in the spring of the associated year. This imagery was paid for by St. Louis County and acquired by Pictometry International Corp. at 4 inch resolution in select areas and 9 inch in most other areas of the county.
Email Updates

There is an option for users to subscribe to updates to the County Land Explorer via email. Users will have the option to subscribe or unsubscribe at any time. At this time, subscribing to updates will include updates on the following:

1. Maintenance & Service Interruption notices – occur as needed
2. Additions & Enhancements – Quarterly
3. Tech Tips – occur 2x per year

The subscriptions are for *email communication* in the event that site administrators have identified a technical issue with the site and if there is an update on the resolution of an issue. Subscribers will be notified ASAP of issues as they occur. Updates on enhancements to the site and tech tips will be shared only periodically throughout the year as noted above. The optional and free subscription is administered through GovDelivery. To sign up or manage your subscriptions from the map application, click the ‘Manage Subscriptions’ icon in the header to the left of the Basemap Switcher and the Theme Selection.

Read more information on how to subscribe and manage subscriptions.
Other map features – lower left corner

These tools are static on the map viewer and cannot be moved around by the user.

Help – Users can access the latest version of the Help document for learning more about the tools, data, and troubleshooting tips. Be aware of the ‘Last Edited’ date in the upper right corner of the document. The document is updated periodically. To ensure you have the latest version, always access the document from the link provided.

St. Louis County website – Click on the St. Louis County logo to open a new tab in your web browser for the St. Louis County homepage www.stlouiscountymn.gov.

Feedback – Site administrators welcome feedback in an effort to continually improve and enhance the County Land Explorer where possible. Select the Feedback link to submit your feedback on the mapping application. A new tab in the web browser will open to a page on the St. Louis County web page where there is space to enter feedback.

Disclaimer – Users can view the County Land Explorer Disclaimer on the county website as stated here: St. Louis County makes no representation or warranties, express or implied, with respect to the use or reuse of data provided herewith, regardless of its format or the means of its transmission. THE DATA IS PROVIDED “AS IS” WITH NO GUARANTEE OR REPRESENTATION ABOUT THE ACCURACY, CURRENCY, SUITABILITY, PERFORMANCE, MERCHANTABILITY, RELIABILITY OR FITNESS OF THIS DATA FOR ANY PARTICULAR PURPOSE. St. Louis County shall not be liable for any direct, indirect, special, incidental, compensatory or consequential damages or third party claims resulting from the use of these data, even if St. Louis County has been advised of the possibility of such potential loss or damage. This data may not be used in states that do not allow the exclusion or limitation of incidental or consequential damages.
Coordinates – Latitude and Longitude coordinates display in Decimal Degrees or Degrees (◦) Minutes (‘) Seconds (") for the current location of the computer mouse on the map. These coordinates will change automatically as the mouse is moved on the map. To change the display from DD to DMS or vice versa, click the arrow to the right and select your preference. To manually convert the coordinates to DD or DMS or to learn more, read FAQ about XY coordinates.

Scale bar – the scale bar displays units in miles (greater than or equal to 0.2 miles) and feet (less than or equal to 600 feet) for the map scale corresponding to the current zoom level on the map. The scale bar will change automatically as the zoom level changes on the map.

Table View – this is a tab that can be activated to display data in the table view. The Table View will open automatically when a search is conducted from the Search in the main toolbar to display the search results. To open the Table View manually, select the up arrow from the bottom center of the map and to close the Table View, select the down arrow.

For an example, and to learn more go to the Table View.
## Using the mouse

<table>
<thead>
<tr>
<th>Map action</th>
<th>Mouse stroke</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Re-center</td>
<td>Pan tool</td>
<td>The pointer from the mouse is the pan tool by default. Click on the map and drag the map to a new location. The mouse pointer will automatically change to the 4 arrows when the user clicks on the map.</td>
</tr>
<tr>
<td>Zoom-in</td>
<td>Mouse wheel</td>
<td>Scroll the mouse wheel forward (or up) to zoom in. Each wheel click will zoom the map in by approximately 50% in width/height</td>
</tr>
<tr>
<td></td>
<td>Shift+Left click mouse</td>
<td>Hold the shift key down while also holding the left mouse button down and drag to draw a rectangle. The map will zoom in to the area of the rectangle.</td>
</tr>
<tr>
<td></td>
<td>Zoom-in tool</td>
<td>Select the zoom-in tool from the navigation toolbar. Click once on the map to zoom-in and re-center the map on that point.</td>
</tr>
<tr>
<td>Zoom-out</td>
<td>Mouse wheel</td>
<td>Scroll the mouse wheel backward or down to zoom out. Each wheel click will zoom the map out by approximately 50% in width/height.</td>
</tr>
<tr>
<td></td>
<td>Ctrl+Left click mouse</td>
<td>Hold the Ctrl key down, then double-click the left mouse button to zoom out OR hold the left mouse button down and drag to draw a rectangle. The map will zoom out to the extent of the rectangle drawn. The smaller the rectangle, the more the map zooms out.</td>
</tr>
<tr>
<td></td>
<td>Zoom-out tool</td>
<td>Select the zoom-out tool from the navigation toolbar. Click once on the map to zoom-out and re-center the map on that point.</td>
</tr>
<tr>
<td>Zoom to full extent of St. Louis County</td>
<td>Zoom to full extent</td>
<td>Select the St. Louis County boundary graphic from the navigation toolbar to zoom to the full extent of the county.</td>
</tr>
</tbody>
</table>
Using the keyboard

<table>
<thead>
<tr>
<th>Map action</th>
<th>Keyboard shortcut</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zoom-in</td>
<td>+</td>
<td>Press the plus key on the keyboard. Each click of the plus key zooms the map in by a fixed amount. The mouse cursor must be over the map.</td>
</tr>
<tr>
<td>Zoom-out</td>
<td>-</td>
<td>Press the minus key on the keyboard. Each click of the minus key zooms the map out by a fixed amount. The mouse cursor must be over the map.</td>
</tr>
<tr>
<td>Re-center (pan) the map</td>
<td>Home, Up, Page Up, Left, Right, End, Down, Page Down</td>
<td>To pan the map, use these keys on the numeric keypad and the map will move a small amount with each click. The arrow keys (up/down/left/right) move the map horizontally and vertically. The Home/End/Page Up/Page Down move the map diagonally.</td>
</tr>
<tr>
<td>Zoom to full extent of St. Louis County</td>
<td>f</td>
<td>One click of the 'f' key will zoom the map to the full extent (St. Louis County extent).</td>
</tr>
<tr>
<td>Print</td>
<td>Ctrl + Alt + PrtScn</td>
<td>To capture a screen shot of any object or map view on the computer screen, press the Ctrl + Alt + Print Screen buttons (in that order) on the keyboard. In an open document, select paste. A word document, Paint, or any image editing program will work. Save the screen shot in the desired file format for sharing or using in other programs.</td>
</tr>
</tbody>
</table>

Using the keyboard and mouse

<table>
<thead>
<tr>
<th>Map action</th>
<th>Keyboard shortcut</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adjust web browser resolution</td>
<td>Ctrl + scroll mouse wheel</td>
<td>To adjust the resolution of your web browser, click on the map application and press the Ctrl key on your keyboard while moving the wheel on your mouse. Click to see examples and more details.</td>
</tr>
</tbody>
</table>
How to use the main toolbar

The main toolbar contains tools that allow the user to interact with the map through a widget dialog. To use any of these widgets, select the desired widget icon from the main toolbar in the left side panel of the map. This will open the tool in the side panel.

The main toolbar and widget dialog boxes can be minimized as needed by clicking the arrows at the top or by clicking on the tool in the main toolbar.

**Search** – Search county land records using an address, Property Identification Number (PIN), plat, and PLSS. The results from either the text or graphical search will be displayed in the results tab of the widget.

**Layer List** – The layers available in the web map are listed and with the option to check on/off the boxes for each layer. The data available in the layer list is determined by the current theme selected from the Theme Selection list.

**Legend** – The display settings (predefined size, colors, and classes) for each layer in the web map.

**Measure** – This widget allows the user to measure a distance or area, or acquire the Geographic coordinates for a point.

**Draw & Measure** – Draw graphics, add text, and/or save drawings to your desktop for later viewing. The drawing tool can also be used to measure approximate areas and distances. The graphics can be included in a printed map.

**Bird’s Eye View** – This widget allows the user to view another web map application customized for viewing the St. Louis County imagery from the ‘Bird’s Eye’ perspective overlaid by the GIS county data. The Bird’s Eye View will open in another tab in the web browser.

**Print** – This widget creates a PDF of the map in a preset template as the user currently has it displayed. If a feature is selected, the selection and details will be included in the PDF version. The PDF can then be printed as a separate process.

**Bookmarks** – This widget displays a list of predefined spatial bookmarks in St. Louis County. The user can add/delete custom bookmarks and those changes are saved in the browser settings until the browser history has been deleted.

**Share** – Share the web map through social media, send an email with a link, or embed it in a website or blog. The user can specify to share the web map at a specific map extent.
The Search widget is available in the main toolbar on the left of the map. Depending on the theme selected, some additional data may be available for searching. The core search options in each theme include:

1. Tax Parcels
   a. Address (Physical, Owner, Taxpayer)
   b. PIN (Parcel Identification Number)
2. Lease PIN (Property Identification Number)
3. Subdivision Plat (Plat Name)
4. Public Land Survey System
   a. Township and Range Numbers
   b. Township Range Section

Text Search [By Value]

Enter an address or PIN in the space provided. The text entered must follow a specific format as displayed by an example below the space where the user can enter text. Alternatively, select from a drop-down list for a Plat name or Township-Range-Section. Click Search to activate the search.

Graphical Search [By Shape]

Draw on the map using a point, line, rectangle, or polygon to search county data. Select a layer to search on and then draw the area of interest.

Spatial Search [By Spatial]

Search by a spatial distance from a feature selected on the map. This requires first selecting feature(s) ‘By Value’ or ‘By Shape’. Select features within a spatial buffer parameter as specified by search distance and spatial relationship (i.e. contained within, intersected by). See the next page for an example of a Spatial Search.

Apply a search distance:

Search entries of:

- Tax Parcel

[Example: 123-1234-12345]
Spatial Search

For example, to search Subdivision Plats within 1 mile of the Government Services Center at 320 W 2nd St in Duluth:

1. Search parcels **By Value** first.
Ensure the parcel of interest is the only parcel in the search results.

2. Search parcels **By Spatial**
Select to create the buffer and when prompted select **Buffer**.
Select one of 3 spatial relationship buffers:
- Entirely contained in,
- Intersected by,
- Intersected envelope of

**IMPORTANT NOTE**
Number of Search Results are limited to 3,000.

To create new results select from the right of the search layer. Alternatively, add or remove records to/from the currently selected records, select the appropriate option in the text or graphical search, enter the search criteria, and click Search.

[Links to GIS website]

[Return to Main Menu]
The Results view is displayed in the widget. If no results are returned, check your text entry to ensure it is accurate and try again.

**Tip:** *if no results from a text search are produced, be sure there is no punctuation in your search, such as a period for abbreviations.*

The selected feature will be highlighted in red on the map. To view selected features with the red boundary only, select the red polygon on the left of the search results and the selected feature will turn hollow. To revert to the fill symbology, select the polygon again.

Additionally, a ‘Bird's Eye’ view of the property, tax, property details, and related records can be derived from two links at the bottom of the results view.

Records can be removed from the search results individually in the results tab. Multiple results can be deleted graphically or the search option menu – Clear Results. Access other options including Zoom to, Pan to, Flash, and Export to CSV.

The Table View will open automatically to display the selected records.
Search Results in Table View

The Table View displays the search results in tabular format. To open the Table View manually, select the up arrow from the bottom center of the map. To close the Table View, select the down arrow.
Search Results in Table View

Other options are available in the Table View including 'Filter by Map Extent'. If selected, the only search results displayed in the Table View will be those that are within the current spatial extent of the map. The available records in the table may change as the user pans and zooms. The individual records in the table can be selected for the 'Zoom to' option. Under the Options menu, select to export to CSV for working with the records outside of the map application.

Show or Hide Columns in the Table View

Select the ☰ icon in upper right corner of the Attribute Table. Check the boxes for the fields to display and uncheck the boxes to hide fields. This custom configuration will not be saved for the next search.

https://gis.stlouiscounty.mn.gov/landexplorer/
Search Results Related Records in attribute table

The Table View can also display related records for tax parcels with multiple physical addresses.

Select the icon at the bottom of the search results with two attribute tables to open a new tab in the attribute table titled ‘Tax Parcels – Related Records’. In this example, the primary address of the Tax Parcel 010-2710-03940 is 1918 N Arlington Ave. There are 4 secondary addresses on this parcel. Notice all the records for primary and secondary addresses have the same PIN. The designation of the primary address on a parcel is arbitrary.

FAQ about address searching

Return to Main Menu

https://gis.stlouiscountymn.gov/landexplorer/
Identify parcels on the map with pop-ups

Information can also be viewed for parcels by selecting the parcel of interest. To do this, ensure the parcels are turned on in the Layer List widget. Select the parcel of interest with a left-click on the mouse. This will prompt a pop-up to display information associated with the selected parcel, similar to the Search results. From the pop-up, there are links available for viewing the tax information and property details for the selected parcel. Clicking the Parcel Tax Lookup link will open a new tab in the web browser from the St. Louis County website. Clicking the Property Details link will open a PDF document in a new web browser stored on the county web server.
Multiple pop-ups

It is possible to click on more than one feature with a pop-up from the same click. This means the data overlays another layer with the same spatial extent. In some cases there may be multiple parcels representing multiple ownerships. More commonly, there may be more than one layer turned on in the Layer List widget which has pop-up capability.

It is important to note that not all layers have the pop-up capability. If more than one feature with the pop-up capability is clicked on at one time, there will be numbers and arrows displaying in the upper right hand corner of the pop-up. The arrows allow the user to scroll through the pop-ups. The highlighted feature associated with the pop-up will display.

For example, if the parcels and school district boundaries have been turned on, there will be a pop-up available for both since they both have the pop-up capability. Select the arrow in the upper right corner to see additional pop-ups.
Related Records in pop-ups

For tax parcels with multiple physical addresses, the primary address (designated arbitrarily), it is possible to access the secondary addresses in the pop-up. Scroll to the bottom of the pop-up, click on ‘Tax Parcels – Related Records’. A list of related records for that tax parcel will display by physical address. Select a related recorded to view more information. The related records on a tax parcel may also be viewed from the search results.
Layer List

If the Layer List widget dialog is not open, select the Layer List widget icon from the main toolbar in the left side panel of the map.

The Layer List widget displays the available county data and associated labels for viewing on the map by checking the boxes on/off for each layer. The map automatically redraws to reflect the changes in layer visibility. If the layer does not draw as expected, wait patiently and/or try panning around on the map to get the map to refresh. Some layers may take longer than others to draw depending on the amount of data and how much it is being accessed by other users.

The layers available in the web map are determined by the current theme selected from the Theme Selection list. The layers are organized by groups and sub-groups. The check boxes for parent groups and sub-groups must be checked to display the layers below. Expand or contract the groups and sub-groups by clicking the › or ◀ next to the layer name. Expanding the layer also allows for viewing the display settings (predefined size, colors, classes) for each layer. The display settings can also be viewed from the Legend  widget.

Some layers may not be visible at the current map scale (zoom level). These layers are scale dependent. This means the data will only display when the map is within a specific scale range even if the box is checked. The checkbox next to each layer indicates if it is scale dependent. As the map scale changes, the checkbox may change to show it is in range for that layer.

Current zoom level is out of scale range for this layer

Current zoom level is within scale range for this layer

https://gis.stlouiscountymn.gov/landexplorer/
Layer List

Layer List options

Additional options for tweaking the display of layers. The options are available from the drop-down arrow to the right of each layer.

Layer Transparency

Layer transparency can be controlled by clicking on Transparency and moving the sliding bar to change. This option is available for the group level only.

Layer Description

To get a brief description of the layers in a group, click on Description from the parent group.

A new tab will open for the Map Service of the layer. A service description is included toward the top of the web page.

Mix and match the data as needed for viewing or exporting images to reports and presentations.

https://gis.stlouiscountymn.gov/landexplorer/
If the Legend widget dialog is not open, select the Legend widget icon from the **main toolbar** in the left side panel of the map.

The display settings (predefined size, colors, classes) for each layer currently available for viewing in the web map are viewable from the Legend widget dialog. As more layers are turned on in the Layer List widget, or the zoom level changes to allow for more scale dependent layers to display, more layers and display settings will display in the legend.

For Example:
Measure

If the Measure widget dialog is not open, select the Measure widget icon from the main toolbar in the left side panel of the map.

**Measurement**

The widget allows for measuring distances or areas. Also, there is an option to obtain geographic coordinates for a point on the map. The measure units available for measuring include:

<table>
<thead>
<tr>
<th><strong>Area</strong></th>
<th>Acres, Sq Miles, Sq Kilometers, Hectares, Sq Yards, Sq Feet, Sq Meters</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Distance</strong></td>
<td>Miles, Kilometers, Feet, Meters, Yards, Nautical Miles</td>
</tr>
<tr>
<td><strong>Geographic point</strong></td>
<td>Decimal Degrees OR Degrees Minutes Seconds</td>
</tr>
</tbody>
</table>

Select the measurement tool and units of your choice before starting to draw on the map. The measurement will display while the user is drawing in the tool dialog. Double-click to finish drawing the polygon or polyline. The measurement results cannot be saved and the results are overwritten with each new measurement. The Draw and Measure widget allows for saving the drawings and/or measurements.

**Measure vs Draw & Measure Widgets:**

<table>
<thead>
<tr>
<th>Tool</th>
<th>Advantage</th>
<th>Disadvantage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measure</td>
<td>View the measurement progress while measuring</td>
<td>No saving of drawings and/or measurements</td>
</tr>
<tr>
<td></td>
<td>Simple</td>
<td>Limited to polyline or polygon geometry options</td>
</tr>
<tr>
<td>Draw &amp; Measure</td>
<td>Save the drawings and/or measurements</td>
<td>No view of the measurement progress while drawing</td>
</tr>
<tr>
<td></td>
<td>Greater options for drawing geometry types</td>
<td>Complex user interface</td>
</tr>
</tbody>
</table>

https://gis.stlouiscardmn.gov/landexplorer/
If the Draw & Measure widget dialog is not open, select the Draw & Measure widget icon from the main toolbar in the left side panel of the map.

This widget allows for drawing graphics on the map to mark up or derive approximate measurement information. Choose one of the following geometry types:

- Point
- Line
- Polyline
- Freehand Line
- Triangle
- Rectangle
- Circle
- Ellipse
- Polygon
- Freehand Polygon
- Arrow
- Text

Once a geometry type is chosen, the display options for that geometry type will be available. Set the desired display options before drawing. The display options allow the user to change the geometry or text colors and sizes. If using the tool for deriving measurements, check the box to ‘Show Measurements’ before drawing on the map. After drawings have been added to the map, the widget will change to allow the user to clear all or individual drawings.

**Draw & Measure**

Select a geometry tool to start drawing on the map.

**Display Options**

The widget changes after the geometry tool is selected.

**Save, Modify, or Zoom to Graphics**

The Drawings list shows all your graphics with the option to further modify, delete, or zoom to the graphic(s).

At the bottom of the widget dialog box, several options are available for the selected graphics. The options include:

- Zoom to
- Copy
- Delete
- Save

Save the selected graphics to be shared with other users or imported back in to County Land Explorer for use at a later date.
New in the County Land Explorer is the ‘Bird’s Eye’ view of the county data and imagery. From the search results select or select the tool from the main toolbar. The Bird’s Eye view will open in a new tab in the web browser. This view is another map application available for the user to pan, zoom, view county data, and county imagery from a ‘Bird’s Eye’ view of the landscape within a web browser. The application will initially open to display the search result selected. From there, the user can search county data by tax parcel PIN or an address within St. Louis County. The date of the imagery displayed in the application will be displayed in the upper left corner. As the user pans and zooms, the imagery will automatically change to the latest date of imagery available unless the user specifies a year from the list available.
If the Print widget dialog is not open, select the Print widget icon from the main toolbar in the left side panel of the map.

The Print widget allows the user to create a map in a pre-configured Portrait layout and save to one of the following file formats: EPS, GIF, JPEG, PDF, PNG32, PNG8, SVG, SVGZ. There also an option to save the map without a layout known as ‘MAP_ONLY’.

Some Advanced options are also available for configuring the map scale, extent, metadata, size and print quality.

Learn about alternative print methods outside of the County Land Explorer.
Print Example

Add a Title for the map, position the map for the desired zoom level and extent.

The map can be created based on a pre-set portrait template from the St. Louis County Enterprise GIS team. Select Print.

The output will be listed in the widget dialog. The user can create as many maps as desired and clear the maps at any time.

https://gis.stlouiscountymn.gov/landexplorer/
Print Portrait Map Template Example

The PDF from the portrait map template option will open in a new tab in the web browser. The map template provides a portrait layout with the standard components of a map (Title, North Arrow, Scale, Description, Source Information, an inset locator map) as in the example below. From here, the PDF can be saved or printed.
Print No Template

The option to print ‘MAP_ONLY’ also creates a PDF but does not put the map in to a pre-set template. The ‘MAP_ONLY’ option creates a map view in PDF format without the standard components of a map (Title, North Arrow, Scale, Description, Source Information, or an inset locator map) as in the example below. Using this option, the map layout may be landscape (as in the example below) or portrait, based on the extent of the web browser window when selecting to create the PDF. Once the map is opened in a new tab, the PDF can be saved or printed.

FAQ about alternative print methods

Return to Main Menu

https://gis.stlouiscountymn.gov/landexplorer/
If the Bookmark widget dialog is not open, select the Bookmark widget icon from the main toolbar in the left side panel of the map.

This widget displays a list of pre-defined spatial bookmarks in St. Louis County. Select a location from the list and the map will zoom to the extent set for that location.

Add a custom bookmark by zooming to the desired location. Type in the name for the new bookmark and select +.

Delete a bookmark by selecting the bookmark from the list and select Delete at the bottom of the widget dialog.

The custom bookmark will display as entered in the list at the bottom.

The customized bookmarks are saved in the browser settings until the browser history is cleared or the user deletes the bookmark.
If the Share widget dialog is not open, select the Share widget icon from the main toolbar in the left side panel of the map.

Share the web map through social media, send an email with a link, or embed it in a website or blog. Clicking on any of the social media or email icons will automatically open that application with the URL for the map ready to share or send.

The Map Link can also be useful for easily setting up multiple tabs in the web browser for different themes at the same spatial extents. Right-click on the map link to copy and paste in a new tab.

The web map may also be shared by embedding the map in a website.

**Share**

Share a link to this app

https://gisdev.stlouiscountymn.gov/landexplorer_web?extent=

Embed this app in a website

<iframe width="300" height="200" frameborder="0" scrolling="no" allowfullscreen src=https://gisdev.stlouiscountymn.gov/landexplorer_web?extent=-10250940.6767%2C-9088996.7704%2C-10250940.6767%2C-9088996.7704" width="300" height="200"></iframe>
FAQ about data and how to use it

What is Cadastral data?

The Cadastral is a fundamental collection of datasets pertaining to land ownership information in St. Louis County, MN. The main dataset within the Cadastral are Tax Parcels. Other datasets are included in the cadastral as they have elements that formulate or impact the Tax Parcels data: Survey Control Points, Public Land Survey System, Right Of Way, lots, blocks, subdivisions, Lease Sites, St. Louis County Boundary, and Community Boundaries. The Tax Parcels are a spatial representation of a legal description linked to many attributes about the property such as land ownership, parcel size, configuration, land use, improvement values, and other related information. One way of thinking about parcel data is to consider it as a digital version of a plat book; but in reality, the data contained within the tax parcel data is much more detailed and suited for analysis. From a county perspective, the presence of a cadastral dataset allows for the building of an integrated system of land management information. St. Louis County utilizes the Cadastral data to describe and visually identify approximate land ownership. The Tax Parcel is the fundamental base from which taxes and assessments are calculated, and it is the basis by which all land-related decisions are based.

When and how often is the data updated?

The County Land Explorer brings together multiple databases from across the county. The database updates are typically reflected within 1-2 days but some data are updated less frequently. Tax parcel data are updated regularly. However, some information (i.e. new owner name/address following the sale of a parcel) may take weeks or months to update depending on the processing time frames of recorded documents. Further inquiries regarding attributes displayed in the tax parcel data can be answered by calling the St. Louis County Auditor’s office at 218-726-2380.

What is the best use of the Tax Parcel data? How accurate is the data?

The St. Louis County parcel data is available to the public for interpreting property tax information, approximate land ownership and physical characteristics of a property. The parcel data is not intended to be used for identifying property boundaries. Although the parcel data is overall fairly accurate across the county, the lines and polygons as drawn in the Geographic Information System (GIS), are often wrongly interpreted to be of survey grade quality, or assumed to “correct” as they are maintained by an authoritative government office. The accuracy of the data varies depending on the availability of survey corners and surveys of the associated properties. Even in areas where the survey information exists, property lines can only be derived from a survey and not from the digital parcel data. The accuracy of GIS data will never meet the requirements for identifying property boundaries and should be thought of more as a mere ‘representation’ of the parcel.

What is accuracy vs. errors in the data?

In some cases, errors do exist in the data where the parcel line is drawn incorrectly or the attributes attached to the parcel are incorrect. Errors are discrepancies in the data that do not even serve the purpose of ‘representing’ the parcel lines and associated attributes. These errors exist either due to errors in the original survey, change in the natural features from which the survey was originally based on, or due to human error. St. Louis County staff are continually working to clean-up errors that exist in the data and welcome feedback from the public where those errors are identified. Errors are different from accuracy in that the errors should be corrected. Parcel lines will never be accurate enough to be of survey grade quality.
**Why does the parcel data not line up with the features in the basemap image the way they should?**

It is common to conclude that the parcel lines are inaccurate based on a visual assessment of where the parcel lines draw over a basemap such as aerial photography or satellite imagery. There are several problems with determining the accuracy of GIS data based on how it overlays on another layer. The first problem with this conclusion is that the imagery itself, no matter its source, is also less than 100% accurate. Although some image datasets are more spatially accurate than others, there is always some degree of inaccuracy.

For many image basemaps, we do not know the accuracy statistics associated with the data. One reason for this is that metadata (i.e. information about the source of the data, the date of acquisition, image resolution, image post-processing methodology, or the accuracy of the final product) is often not provided to the end-user. More often than not, the GIS data representing parcel lines have been derived from sources at different scales and accuracy than the image basemap. A visual comparison of parcels in the same area (example below), over different image basemaps demonstrates how the difference in imagery can lead to different conclusions about the accuracy of the parcel data.

2011 City of Duluth Image Example:  
Bing Imagery Example:
Accuracy of parcel data and image basemap

The horizontal accuracy changes across an image. The change in accuracy is dependent on the image product, the methodology used for post-processing the imagery, and the specific point of interest on that image in relation to the center of the original image acquired. The post-processing methodology may cause a slight shift in some areas of the image and not in other areas of the image. The center of an aerial image is generally the most accurate because this is where the camera was pointing straight down to the ground from the airplane. Visually this is obvious when the specific point of interest is focused on a building (or any object with height) which happens to be far away from the center of the original image and the building appears to be leaning as in the example below.

2007 Pictometry Example:

Bing Imagery Example:
FAQ about the address data and search tools

What are all the available search methods?

There are 3 ways to search for an address in the County Land Explorer:

1. **Tax Parcel Search (Address or PIN)**
   Address or PIN searching on tax parcel data may be used for deriving tax information and property details on a particular tax parcel. The tax parcel data can be searched on from the Search widget in the main toolbar.

2. **Address points search**
   The location for each physical address in the county is maintained by the St. Louis County Emergency 9-1-1 department in a separate point database known as the Master Address Repository (MAR). These points can be searched on from the Address points search in the upper right corner.

3. **PIN search**
   The tax parcel PIN can also be searched on from the PIN search in the upper right corner.

What are the advantages to each Search method?

<table>
<thead>
<tr>
<th></th>
<th>Tax Parcel Search (Address or PIN)</th>
<th>Address points Search</th>
<th>PIN Search</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advantages</td>
<td>The tax parcels can be searched on using a PIN, Physical address, Owner Address, or Taxpayer address</td>
<td>Can search any physical address in the county</td>
<td>PIN search allows for easy access to search on tax parcels</td>
</tr>
<tr>
<td></td>
<td>Search widget produces results with all associated attributes in a table and selected parcels are highlighted</td>
<td>Address Search widget is easy to access and allows for more deviations in how the address is entered</td>
<td>The tax parcel is highlighted on the map</td>
</tr>
<tr>
<td>Disadvantages</td>
<td>Can search on only one physical address per parcel (primary address)</td>
<td>Search results only display the physical address and location as a point</td>
<td>Search results only display the highlighted parcel without the associated parcel attributes</td>
</tr>
<tr>
<td></td>
<td>Exact syntax of the address must be entered correctly</td>
<td>The attributes of the associated parcel are not displayed in the results</td>
<td>Search results do not display in the attribute table</td>
</tr>
</tbody>
</table>

There are a lot of complexities inherent in address data. For this reason, the address search options are also fairly complex and therefore can be a great source for confusion. Address information is utilized in a lot of different ways and consequently stored in databases in different ways. For more details on the different search methods, their advantages/disadvantages, click on the Search method above.
**PIN and Address Search toolbar**

The PIN and Address Search toolbar now also has the capability to locate a *Tax Parcel* by PIN or an Address Point.

For Example, Tax PIN Search

The Tax Parcel result will be highlighted from this search. The Search results will only display in the Search widget if the search is conducted from the Search widget.
Address Search on MAR data from search in upper right corner

Another method available for searching addresses in St. Louis County is to utilize the Address Points Search in the upper right corner. This search toolbar allows the user to search the Master Address Repository (MAR) data. This database contains a single point for every physical address in the county. Each physical address is stored as a single point. This means that if there are multiple physical addresses within the same parcel, each address can be searched on.

Advantages to Searching on MAR data

There are two main advantages to utilizing the Address Points Search in the upper right corner. First, searching on the MAR data allows the user to search for an address regardless of whether it is considered to be the ‘primary’ address in the parcel data or otherwise. Second, this search allows for more deviations in how the address is entered than the Search widget allows.

For Example, Address Search

Enter the address with a ‘.’ after each abbreviation (N. and Ave.) in the Address Points Search and you will still get a result. Enter the same syntax in the Search widget on Tax Parcels and no results will be produced.

The Address Point result will be highlighted from this search. The Search results will only display in the Search widget if the search is conducted from the Search widget.
Address Search on Parcel data from Search Widget

One of the methods available for searching St. Louis County addresses is by using the Search widget. If the Search widget is not open, it can be accessed from the main toolbar on the left side of the application. This search method will allow the user to search the St. Louis County parcel data. In the parcel data, there are three different possible addresses for each parcel: physical address, tax payer address, and owner address. These addresses may or may not be the same for any given parcel. In some cases, a parcel may have multiple physical addresses. For parcels with multiple physical addresses, one address is considered the ‘primary’ address and is the only address that can be searched on in the Search widget. The ‘primary’ address designation is arbitrary.

TIP: Type the address without a ‘.’ after abbreviations such as N, S, E, W, Ave, Ln, St, etc.

The Search results will display in 3 different locations: in the Search widget result(s) tab, in the Search Result(s) table at the bottom of the screen, and the parcel pop-up selected in the map.
Advantages to Searching on Parcel Data from Search Widget

There are two main advantages of the Search widget method for searching addresses in the County Land Explorer. First, the Search widget gives the user the ability to view parcels of interest as a highlighted feature. This can be useful for creating maps or visualizing a parcel of interest in spatial context to other features of interest. Second, the Table view of the results gives the user the ability to export results to a CSV file.

From the Options menu of the table, the user can select to export to CSV file. This functionality gives the user the option to work with the data further in an external program.

<table>
<thead>
<tr>
<th>PIN</th>
<th>Tax District</th>
<th>Owner Name</th>
<th>Owner Address</th>
<th>Owner City State Zip</th>
<th>Taxpayer Name</th>
<th>Tax Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>010-2710-03940</td>
<td>CITY OF DULUTH</td>
<td>ST LOUIS CITY</td>
<td>DULUTH</td>
<td>UNKNOWN</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Relate Results/Multiple Addresses*

If a parcel has multiple physical addresses, the search will show the related records in a separate table titled ‘Tax Parcels – Related Records’. To access the relate results click the ‘Show Related Records’ link in the pop-up. The tab for Relate Results is in the same table with the Search Results.
FAQ about XY Coordinates

What are the XY coordinates?

The XY coordinates refer to Longitude (x) and Latitude (y) for any given point on the Earth. These coordinates can be specified in different formats including; Decimal Degrees (◦) or Degrees (◦) Minutes (’) Seconds (“). Both formats are referenced in this Help Document and may be used in the County Land Explorer.

The Coordinates widget in the lower left corner of the map displays the coordinates for the XY position of the computer mouse in DD or DMS.

How do I convert from Degrees Minutes Seconds to Decimal Degrees or vice versa?

To change the display from DD to DMS or vice versa, click the arrow to the right of the Coordinates widget and select your preference.

The math to convert is as follows:

Convert DMS to DD

Ex. Convert (x) 92° 6’ 20.988”, (y) 46° 46’ 58.98”

DD(x) = [degrees(◦) + (minutes(’)/60) + (seconds(“)/3600)]

DD(x) = [92 + (6/60) + (20.988/3600)] = 92.10583°

DD(y) = [46 + (46/60) + (58.98/3600)] = 46.78305°

(x) 92° 6’ 20.988”, (y) 46° 46’ 58.98” = (x) -92.10583°, (y) 46.78305°

Convert DD to DMS

Ex. Convert (x) -92.10583°, (y) 46.78305°

Degrees(◦) = int[decimal degrees] Minutes(’) = int[60 * (decimal degrees – degrees)] Seconds(“) = [3600 * (decimal degrees – degrees – minutes/60)]

X Degrees(◦) = 92°

x Minutes(’) = int[60 * (92.10583° – 92°)] = 6’

X Seconds(“) = [3600 * (92.10583° – 92° – (6/60))] = 20.988”

Y Degrees(◦) = 46°

y Minutes(’) = int[60 * (46.78305° – 46°)] = 46’

Y Seconds(“) = [3600 * (46.78305° – 46° – (46/60))] = 58.98”

(x) -92.10583°, (y) 46.78305° = (x) 92° 6’ 20.988”, (y) 46° 46’ 58.98”
FAQ about alternative print methods

Are there other methods for printing a map from the County Land Explorer?

On Microsoft Windows computers, alternative methods for printing a map is Print Screen Using the Keyboard or using the Snipping Tool.

The Snipping Tool allows the user to capture a screenshot, annotate, save as an image, and share. These options are available as a component of Microsoft Windows and are separate from the County Land Explorer. To access the Snipping Tool on a Microsoft Windows computer, go to Start Menu > Accessories > Snipping Tool.
There is now an option for users to subscribe to updates to the County Land Explorer via email. Users will have the option to subscribe or unsubscribe at any time. At this time, subscribing to updates will include updates on the following:

4. Maintenance & Service Interruption notices – occur as needed
5. Additions & Enhancements – occur 2x per year
6. Tech Tips – occur 2x per year

GovDelivery subscriptions are for *email communication* in the event that site administrators have identified a technical issue with the site and if there is an update on the resolution of an issue. GovDelivery subscribers will be notified ASAP of the issues. Updates on enhancements to the site and tech tips will be shared only 2x per year. The optional and free subscription is administered through GovDelivery. To sign up or manage your subscriptions from the map application, click the ‘Manage Subscriptions’ icon in the header to the left of the Basemap Switcher and Theme Switcher.

**New or returning Subscriber**

If you are a new subscriber, enter your email address and select *Submit*. Updates will be sent to the email address entered. If you are already a subscriber, enter your email address as previously entered to login and manage your subscription(s).
Subscribe to updates

By entering your email address for GovDelivery, you will be listed as a subscriber to the County Land Explorer updates. Subscribing to GovDelivery is intended for email communication only and is not related to any other accounts. Subscribers have the option to unsubscribe at any time. Use of the County Land Explorer does not require a GovDelivery subscription.

New Subscriber

The GovDelivery system will ask you to confirm your email previously entered. This extra step is to confirm you are a human being and not a robot. Click Submit to confirm. Optionally, you may enter a password to make your GovDelivery account password protected. Email confirmation will prompt GovDelivery to send an email welcoming you as a new subscriber.

Subscriber Preferences

After you have confirmed your email and optional password, a message will display to indicate you have successfully subscribed to the ‘County Land Explorer’ updates. To unsubscribe, change or remove your password, or to change other preferences, click on the Subscriber Preferences link.

Success

shobergm@stlouiscountymn.gov has been successfully subscribed to County Land Explorer for St. Louis County MN.

[Submit Preferences]

[Finish] [Close]

Your contact information is used to deliver requested updates or to access your subscriber preferences.

Privacy Policy - Help
Subscriber Preferences

To unsubscribe, check the box on the line after ‘County Land Explorer’, click Submit. Alternatively, you may also select to Delete my account or Add Subscriptions. Any changes made to your preferences or deleting your account will prompt an email from GovDelivery to notify the account holder of the change.

Add Subscriptions

Additional subscriptions through GovDelivery are available on other topics through St. Louis County. Check a box or multiple boxes to add subscriptions.
**Subscribe to updates**

**Subscriber Preferences**

The ‘Preferences’ tab allows the subscriber to change the email address, reset the password or remove the password entirely for the GovDelivery account. If the password is removed, this means your GovDelivery account is not password protected. If the GovDelivery account is not password protected, anyone can enter your email address to alter yourGovDelivery account without a password.

**Subscriber Questions**

The ‘Questions’ tab is not applicable to subscribers of County Land Explorer updates. The ‘Questions’ tab can be clicked on but there is no functionality in this tab.

---

Welcome shobergm@stlouiscountymn.gov

**Email Address**

You currently receive updates at shobergm@stlouiscountymn.gov. To change this address, enter a different one below:

shobergm@stlouiscountymn.gov

Click to save your new address.

**Password**

If you would like to set an optional password or change your existing password, please enter it below:

Remove Password

Enter New Password

Confirm New Password

Submit Cancel

Your contact information is used to deliver requested updates or to access your subscriber preferences.

Privacy Policy - Help
FAQ about the display

The resolution of your web browser may change, affecting the display of the mapping application. This may change without the user even realizing it. The flexibility to change the resolution of your web browser can be nice as it makes the interface flexible to every user. It can also be a point of confusion when the interface becomes too cluttered or the icons and text can become too small to interpret. Either way, the functionality of the interface becomes lost to the user.

1st Example: web browser resolution zoomed in too far displaying all icons, tools in the interface.

Depending on the size of the screen, particularly on mobile devices, the ‘More Info’ links may not be visible in the lower left corner of the browser based web map application. There is no known solution for this issue on mobile devices at this time.

See next page for another example and the solution for use on desktop.
2nd Example: web browser resolution zoomed out too far, making icons and tools too small to read.

The Solution

The user has the option to adjust the resolution of the web browser to fit their needs. Click on the application hovering the mouse over the header in the application (gray bar at the top), hold down the ctrl key on your keyboard while scrolling the wheel on your mouse. You will notice as you scroll the wheel toward yourself, the resolution will zoom out, making icons and text smaller and more spread out. As you scroll the wheel away from yourself, the resolution will zoom in, making icons and text larger and closer to each other. Adjust as necessary until the resolution is where you need it. Often, the user’s preference may change as the size of the window for the browser is adjusted. Note that the web browser resolution does not affect the zoom levels of the web map.
Mobile County Land Explorer

The County Land Explorer can be accessed from the web browser on your mobile device. Some functionality and user friendliness of the application is lost when accessed from mobile devices, particularly those with smaller screens (i.e. smart phones). For this reason, the County Land Explorer can also be accessed on mobile devices by using a free downloadable app from Esri.

Download the ‘Explorer for ArcGIS’ app from the app store (Apple App Store or Google Play Store) on your mobile device.

To access the County Land Explorer through the ‘Explorer for ArcGIS’ app, you do not need an ArcGIS online account.

In the app, select the menu in the upper left corner. Under search, select ‘Find Maps’ and type in ‘County Land Explorer’ or ‘St. Louis County, MN’.

The mobile version of the County Land Explorer from the ‘Explorer for ArcGIS’ app has a lot of the same functionality to the desktop version but not all. See the comparison list below.

<table>
<thead>
<tr>
<th>Functionality</th>
<th>County Land Explorer</th>
<th>County Land Explorer (Esri Explorer App)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explore</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Zoom in/out</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Pan</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Identify</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Search</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Address Points Search</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Tax Parcel</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Sub-division Plat Search</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Township-Range-Section Search</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Lease PIN</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Spatial Bookmarks</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Layer List</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Legend</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Draw &amp; Measure</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Bird’s Eye View</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Print</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>More info – links to feedback and help document</td>
<td>X (small screen size may not show this)</td>
<td>X (GPS enabled)</td>
</tr>
<tr>
<td>Location services</td>
<td>X (web browser enabled or GPS enabled)</td>
<td>X (GPS enabled)</td>
</tr>
</tbody>
</table>

For more information about the Explorer app or to get support for the app, visit [http://www.esri.com/software/explorer-for-arcgis](http://www.esri.com/software/explorer-for-arcgis). The app is supported by Esri. To get support for the County Land Explorer, access the Quick Guides available for [iOS](https://itunes.apple.com/app/id1080001845) and [Android](https://play.google.com/store/apps) devices from the St. Louis County website. Users may also contact site administrators via the County Land Explorer feedback page. In the feedback, specify feedback for the Mobile iOS/Android or Desktop version.
FAQ about Location Services

*Why does the accuracy of the Location Services vary?*

The Location Services option is much more reliable from the Explorer App (from Esri) than from the web browser based application. This is a known limitation of browser based web map applications that utilize Location Services. The specific web browser being used can affect the accuracy in itself. Each web browser accesses your location differently and may be affected by several factors such as the public IP address, cell tower IDs, GPS information, a list of Wifi access points, and signal strengths. When the app runs on a desktop computer, the Location Services use the browser on the network to detect the location. In some cases, there may also be an issue with the version of the operating system of a device as it relates to Location Services in a browser-based web map application. When the browser based web map application runs on a mobile device, by default, the Location Services utilize the GPS on the device to determine location.

If the Location Services are not working at all on the desktop, check to ensure JavaScript is enabled on your web browser. JavaScript code is required to access the HTML5 Geolocation API.