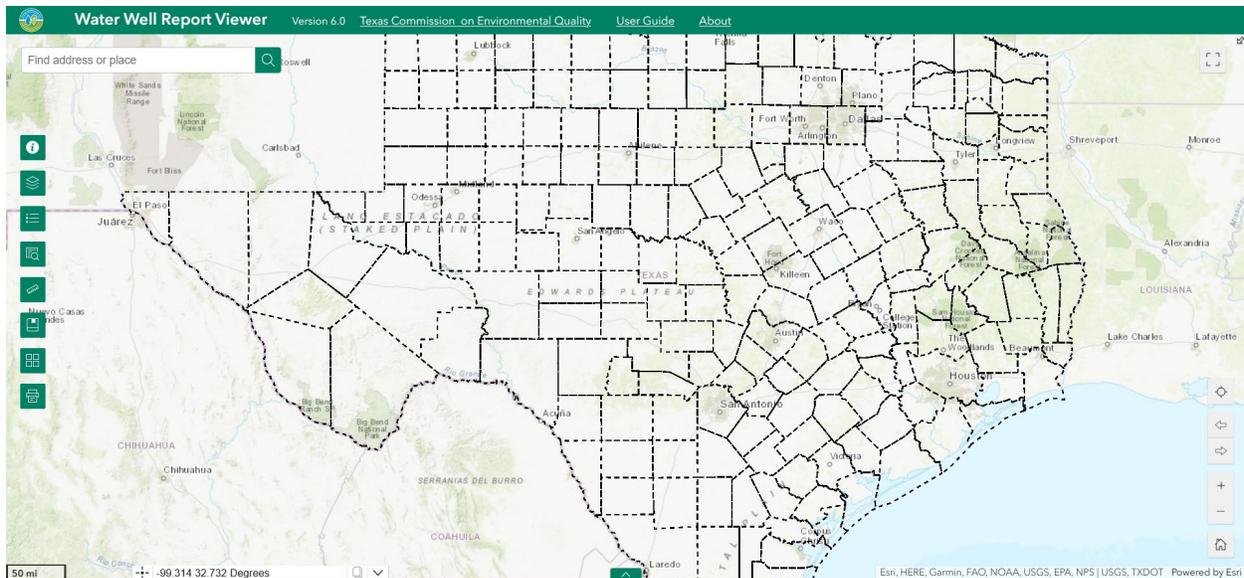


Water Well Report Viewer

User Guide



Application Overview



The Water Well Report Viewer allows users to locate and review copies of over 800,000 historical reports for water wells drilled in Texas.

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Viewing Reports

The viewer has eight different report types available for viewing. They are:

- **Plotted Water Well Reports.** These are water well reports that include drillers' logs. Most water well records are contained within this category.
- **DIM (Dewatering, Injection, or Monitoring) Reports.** These are dewatering, injection, and monitoring well reports.
- **Electric Logs.** These are geophysical logs.
- **Maps and Photos.** These are miscellaneous maps and photographs.
- **Not Plotted Water Well Reports.** These are water well reports without a Grid Number.
- **Plugging Reports.** These are reports for water wells that have been plugged.
- **State Water Well Reports.** These are water well reports that have Texas Water Development Board (TWDB)-assigned State Well Identification Numbers and are available in the TWDB Water Information Integration and Dissemination (WIID) Online System (Web Page: <http://wiid.twdb.texas.gov/>)
- **Undesirable Reports.** These are reports of undesirable water.

Of these reports:

- Plotted Water Well Reports are searchable by either the 2.5 min grid number or county.
- All other reports are searchable by county only.
- No reports are searchable by the 7.5 min grid number.

You view reports by selecting a geographic area of interest, a county or a 2.5 min grid, and then choosing a report type available for that area. You'll be presented with a list of available reports of that type and for that area. At that point you can choose individual reports from the list to view.

To select the geographic area, you may either use the map directly or issue a query with the query widget.

To use the map, navigate to the area of interest and click on it. This will display a pop-up with information about the area, including a list of report types available for that area. Click on the report type you want to see, and the viewer will show a list of all reports of that type for the selected geographic area.

Alternatively, you can click on the query widget to enter a county name or grid number. The viewer zooms to the selected area and displays a pop-up listing the report types available for that area. Click on the report type you want to see, and the viewer will show a list of all reports of that type for the selected geographic area. The query widget is described in detail later in this document. The application displays a list of reports which match the report type you select, as in the example below for DIMS reports for Bastrop county. Click on an individual report link in the list to display that report.

DIMS Reports
in BASTROP
Total record count: 2

No	County	WWD ID	Report Box Type
1	BASTROP	481957	Reports and Standard Size Maps
2	BASTROP	481957	Reports and Standard Size Maps

Interpreting Well Reports

The following links provide invaluable guidance on how to interpret a Water Well Report.

- **Texas Groundwater Protection Committee (TGPC) --> Water Wells.**
 - Web page: <http://www.tgpc.state.tx.us/WaterWells.php>
 - The **Well Basics** section of this web page has a paragraph describing Statewide Water Well Databases and has a link to the Water Well Report Viewer itself.
- **TGPC: What Are the Statewide Water Well Databases?**
 - Web page: http://www.tgpc.state.tx.us/subcommittees/POE/FAQs/StatewideWaterWellDatabases_FAQ.pdf
 - This document contains a good list of the different types of water wells and the types of information you can find in the Water Well Report.

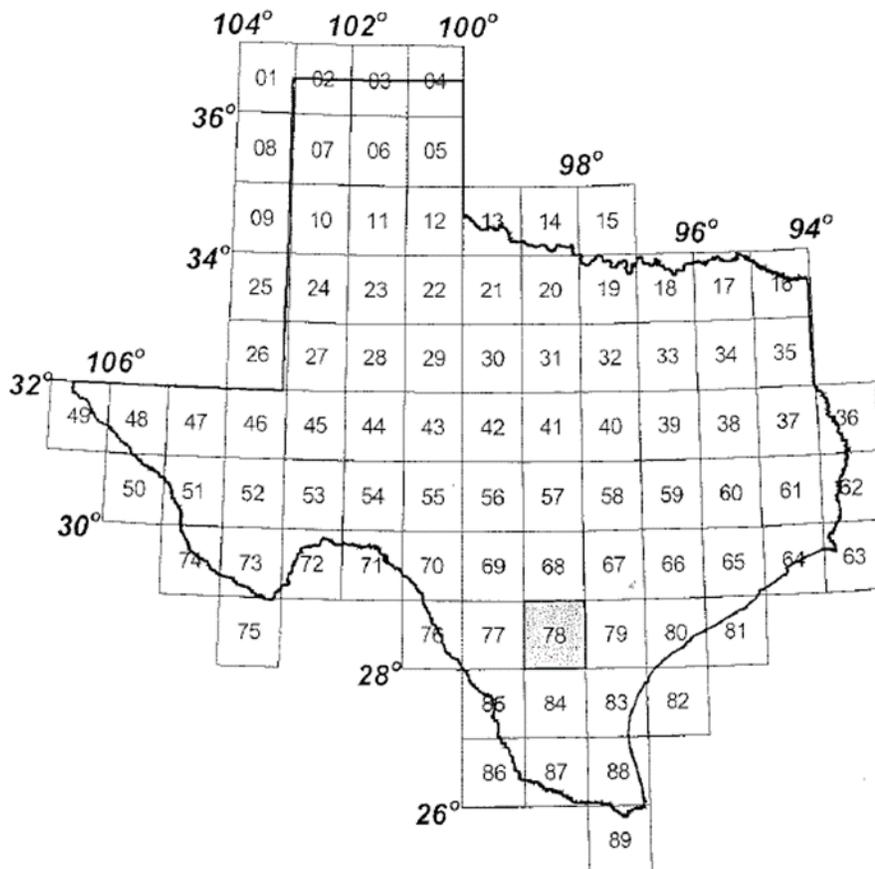
Grid Numbers

The 2.5 minute grid numbers consist of a three-part number. The three components of a grid number are described below. The example demonstrates the grid number for grid

78 28 5.

The first component number represents the number for a **1 degree by 1 degree** (1' x 1') map grid. There are 89 such grids for Texas, numbered 1-89.

Note that Grid 78 is shaded.



The second component number represents a **7.5 minute by 7.5 minute (7.5' x 7.5')** map grid. One degree contains eight 7.5 minute grids. A *1 degree by 1 degree map grid* therefore contains 64 7.5 minute by 7.5 minute grids; these grids are numbered left to right from top to bottom as shown below. Note that Grid 28 is shaded.

78

1	2	3	4	5	6	7	8
9	10	11	12	13	14	15	16
17	18	19	20	21	22	23	24
25	26	27	28	29	30	31	32
33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48
49	50	51	52	53	54	55	56
57	58	59	60	61	62	63	64

The third component number represents a **2.5 minute by 2.5 minute (2.5' x 2.5')** map grid. A *7.5 minute by 7.5 minute grid* contains nine *2.5 minute by 2.5 minute grids*. The third space is restricted to numbers 1 through 9. Note that Grid 5 is shaded.

28

1	2	3
4	5	6
7	8	9

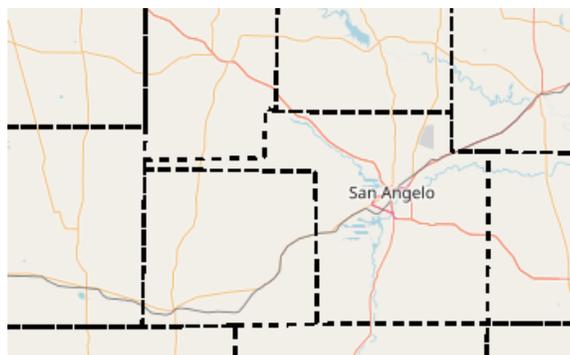
Navigating Around the Map

The map consists of multiple layers. Texas counties and the 2.5 minute grid are displayed by default, but all layers may be turned on or off as needed. See the [Layer List](#) widget description for more detail.

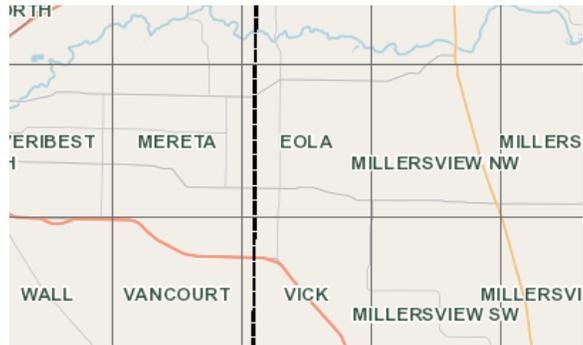
As you zoom in to the map with the mouse wheel you will automatically cross into the next lower layer, or vice versa if you zoom out.

Left clicking on the map pops up a dialog based on the layer you're displaying at the time of the click. These pop-ups allow you to search for various reports available for the geographic area you've clicked. These are described in detail later.

County layer



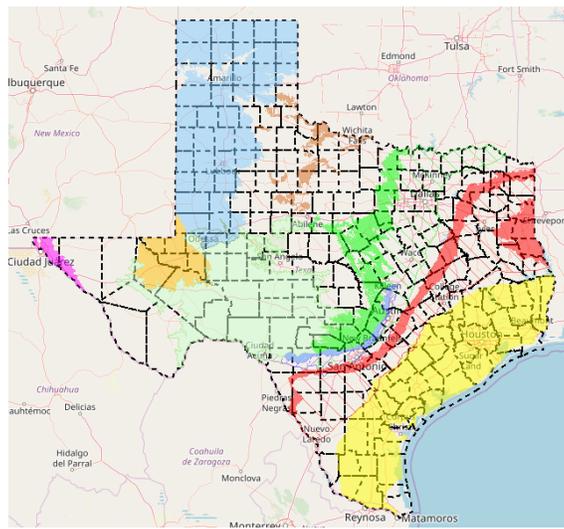
7.5 minute grid layer



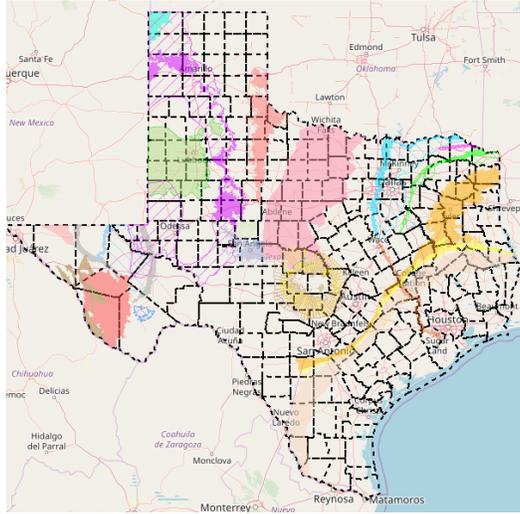
2.5 minute grid layer



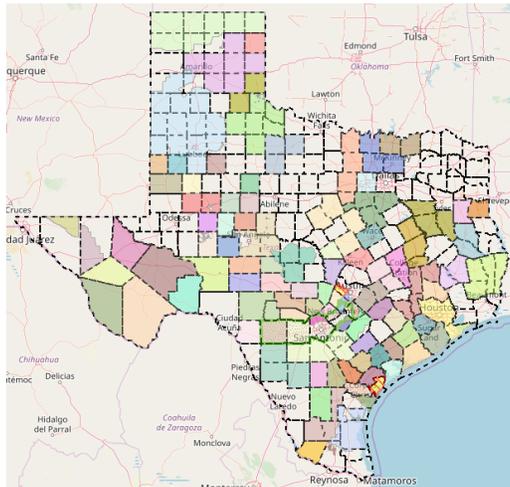
Major Aquifer layer



Minor Aquifer layer

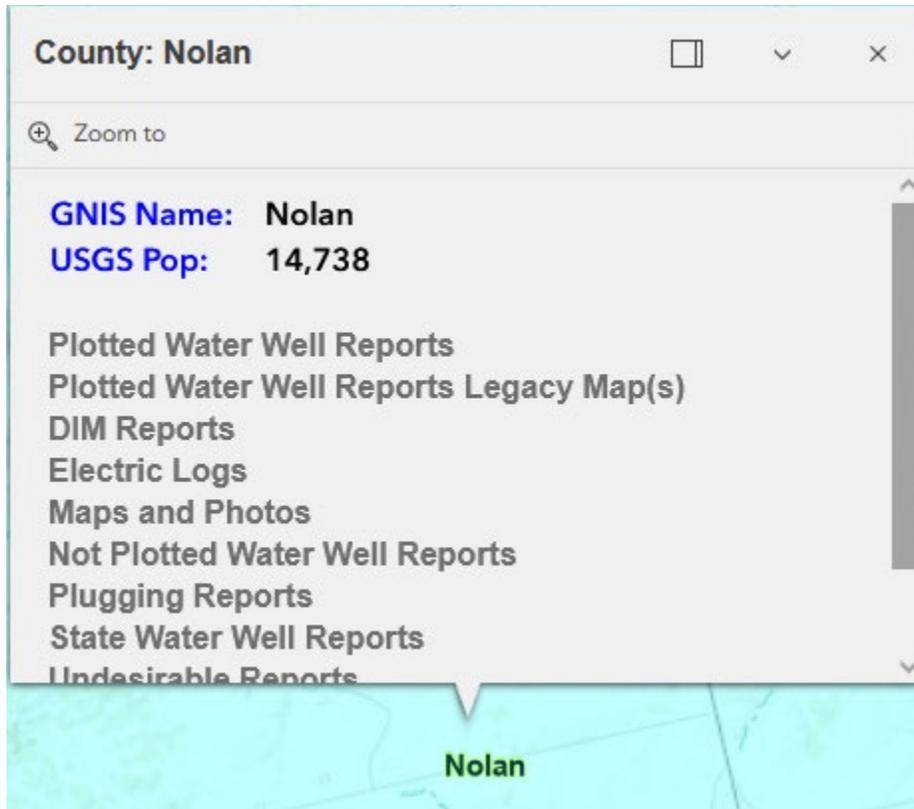


Groundwater Conservation Districts layer



Select a County

Click on any county to display information about the county as well as a list of report types which are available for it.

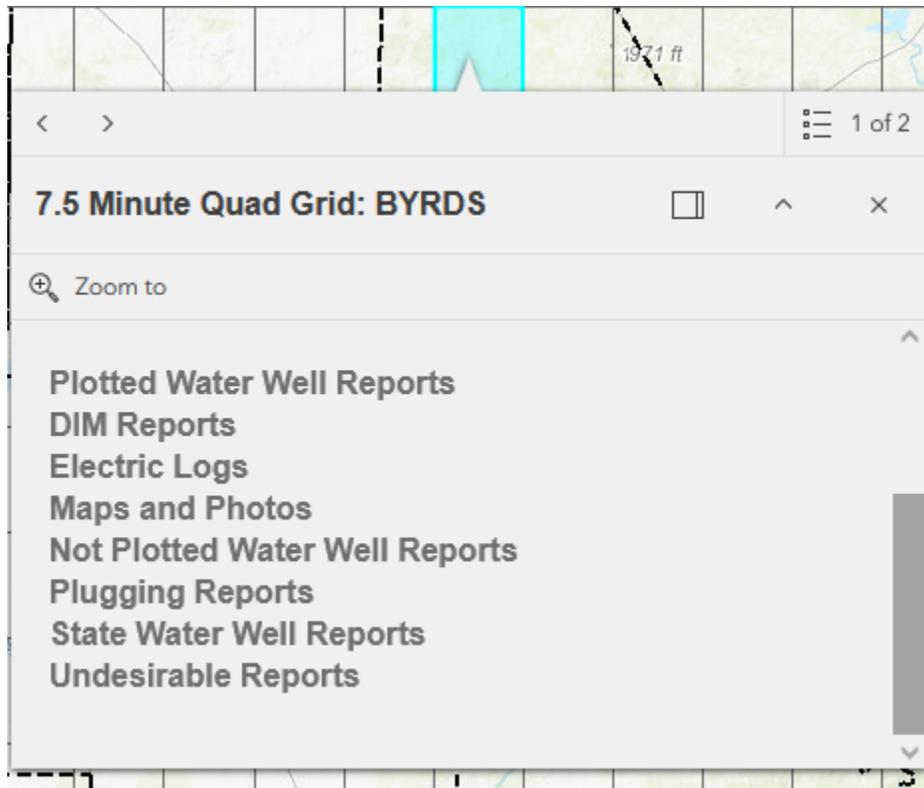


Report type list - click on one of report type links to search for all reports of this type for this county.

Zoom to - click here to get a closer view of the location.

Select 7.5 Minute Grid

Click on any 7.5 minute grid to display information about the grid. Note that there are no reports available for the 7.5 minute grid.



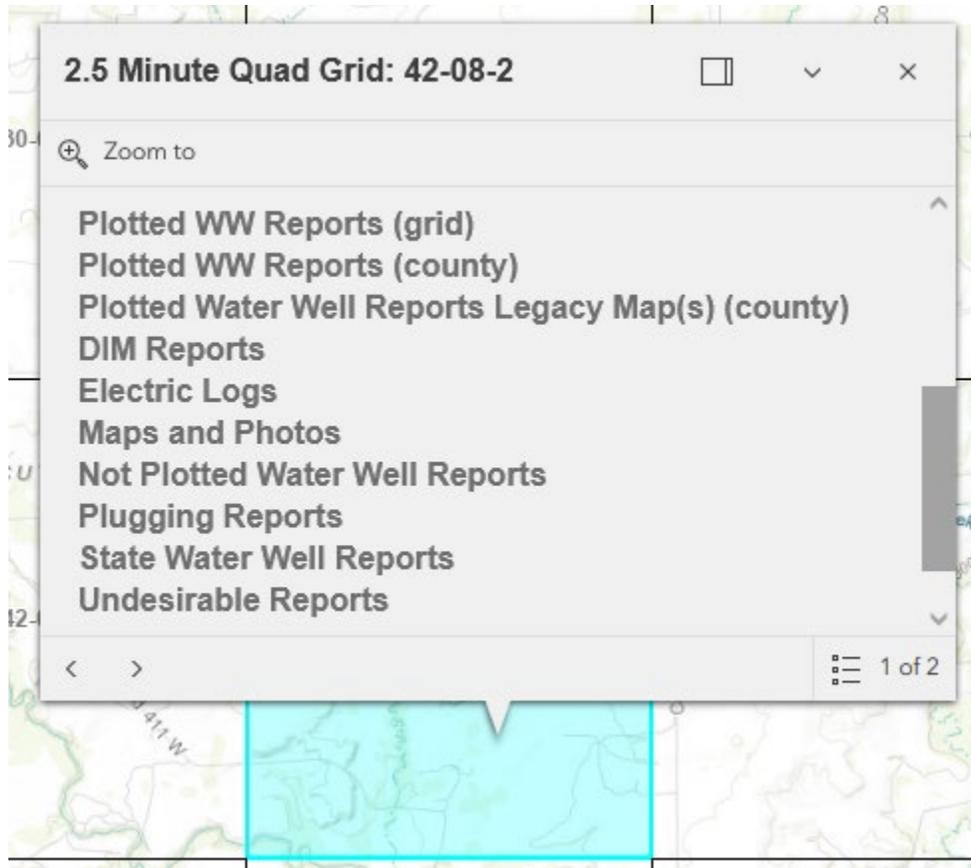
The right arrow in the header allows navigation to the county pop-up corresponding to the county in which this grid lies. If the grid is in multiple counties, the pop-ups for each county will be available using the right arrow.

Report type list - click on one of report type links to search for all reports of this type for all counties which contain this grid.

Zoom to - click here to get a closer view of the location.

Select 2.5 Minute Grid

Click on any 2.5 minute grid to display information about the grid as well as a list of report types which are available for it.



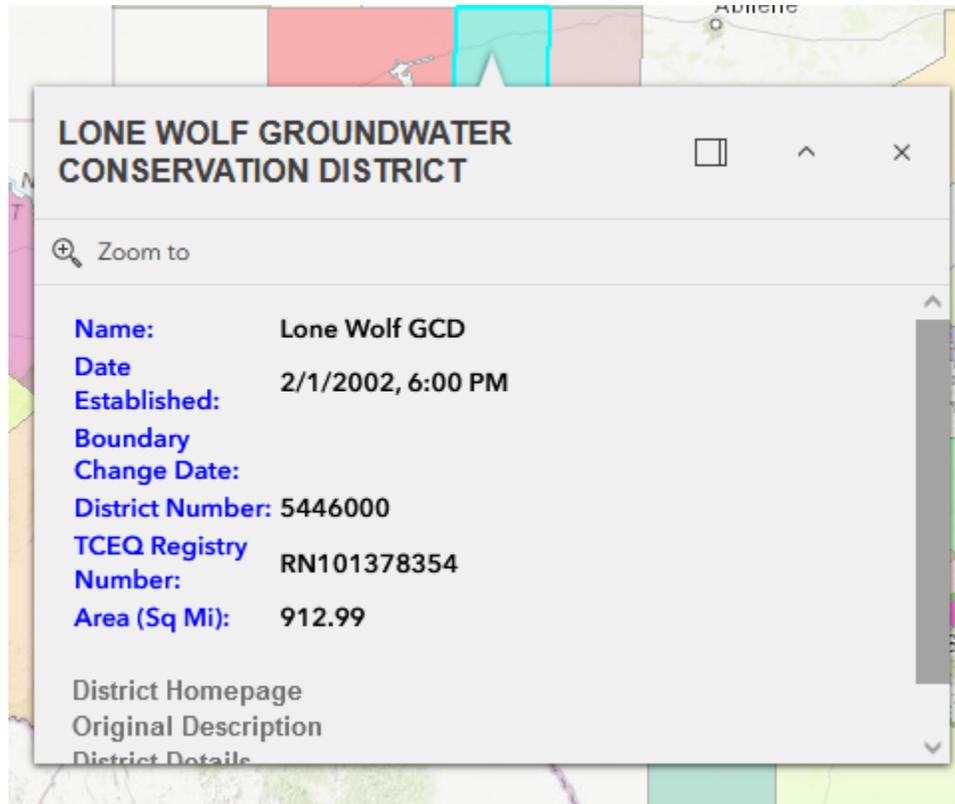
The right arrow in the header allows navigation to the county pop-up corresponding to the county in which this grid lies. If the grid is in multiple counties, the pop-ups for each county will be available using the right arrow.

Report type list - click on one of report type links to search for all reports of this type for this grid. The "Plotted WW Reports (grid)" returns plotted reports for this specific grid. The "Plotted WW Reports (county)" returns plotted reports for all counties in which this grid resides. All other reports return the specified report type for all counties which contain this grid.

Zoom to - click here to get a closer view of the location.

Select Groundwater Conservation District

Click on any district to display information about that district.



The right arrow in the header allows navigation to the county pop-up corresponding to the county in which you clicked. If the click is in multiple counties (on a border), the pop-ups for each county will be available using the right arrow.

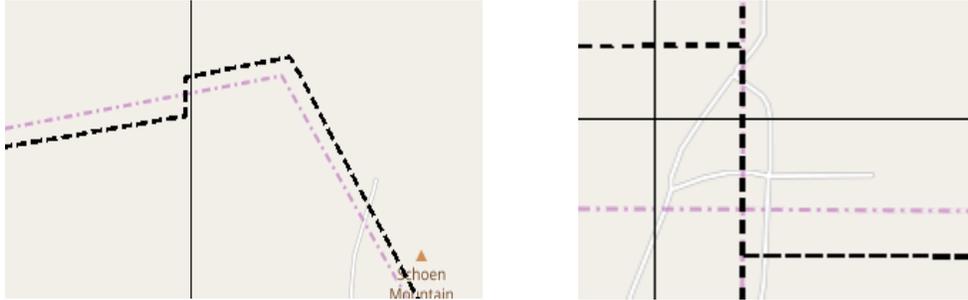
District Homepage - opens the home web page of the district.

Original Description - opens a Texas Legislature web page which describes the origin of the district.

District Details - opens the TCEQ web page with district details.

Zoom to - click here to get a closer view of the location.

Boundary Lines



Occasionally boundary lines appear on the map which don't align (see above examples) and may appear confusing. The thicker, darker lines are the official TxDOT boundaries which the TCEQ relies on as definitive. The lighter lines are drawn on the basemap by their vendors and are not considered definitive.

Splash Screen Pop Up

When first accessing the Viewer, you will see a pop-up that includes disclaimer information on the intended use of the application. Users must select the checkbox next to “I agree to the above terms and conditions” and then the “OK” button will be selectable. Click the OK button to exit the window and continue to view the application.

DISCLAIMER

The records on this site represent the best representation of water well driller's reports available to the TCEQ at this time. However, the documents are scanned from the original driller's reports and the quality of some of the reports is sometimes less than desirable. The Commission will systematically correct, replace, or try to enhance records that it discovers are not legible. The TCEQ asks that the discovery of any inaccuracies, illegible documents, or questions about the documents be provided to gpat@tceq.texas.gov.

I agree to the above terms and conditions OK

Viewer Header

The header section of the Viewer includes the Viewer's title and essential information about the Viewer. It provides links to the TCEQ Homepage, the viewer's landing page under the TCEQ Geographic Web Apps page, the Viewer's

User Guide, and an About window for the viewer. A version number may also be displayed to assist version control for developers.

Widget Controller

The widget controller is located on the left-hand side of the Viewer. It hosts individual widgets to conduct varying actions such as measuring or changing the basemap being displayed.

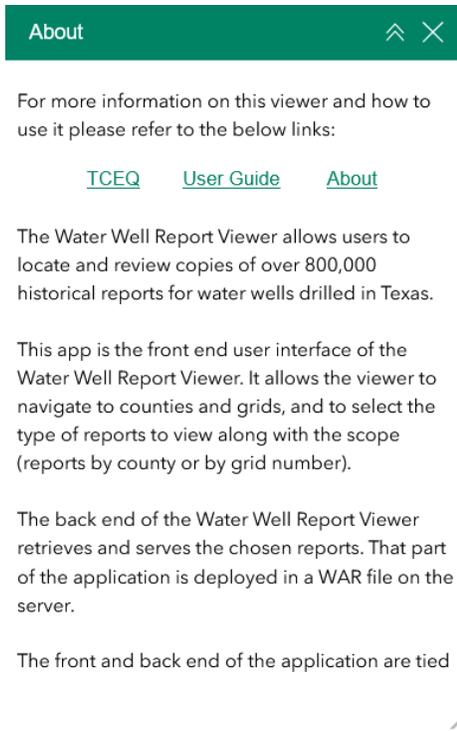


About

The **About** widget provides users with essential information regarding the application, including its purpose, user guide, data sources, and any credits or acknowledgements related to the content.

To use the **About** widget, click on the  icon in the widget controller.

- This opens a brief description of the application and the links.



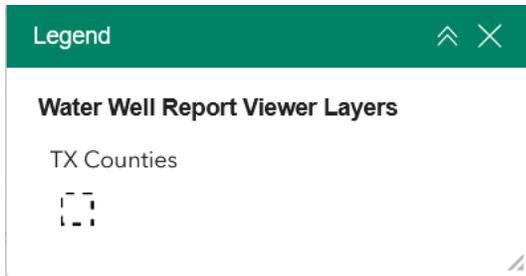
- To close the window, click the close (x) button  in the upper right-hand corner.
- To collapse the window, click the expand/collapse button  just to the left of the close button.

Legend

The **Legend** widget shows the symbols for the various layers on the map.

Simply click the **Legend** button  in the widget controller

- To close the window, click the close (x) button  in the upper right-hand corner.
- To collapse the window, click the expand/collapse button  just to the left of the close button.
- The legend will only show those layers that are currently turned on using the layers tool.

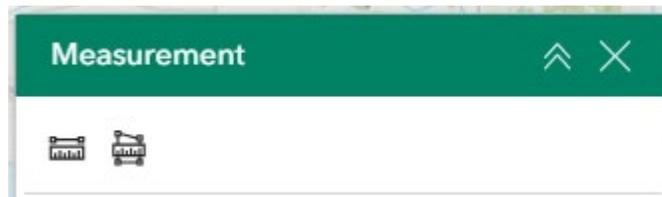


Measurement

The Measurement widget enables user to calculate the area, and distance directly on the map.

To measure a feature, click on the **Measurement**  widget in the widget controller.

The Measurement window will appear as shown below.



- To close the window, click the close (x) button  in the upper right-hand corner.
- To collapse the window, click the expand/collapse button  just to the left of the close button.
- There are two different ways to measure features on the map:

 **Area** - Click this button, choose a unit of measure from the drop-down list, then single-click the first point of your polygon on the map. Continue to single-click until you have finished measuring your area feature. Double-click to end. Results will appear in the Measurement window.

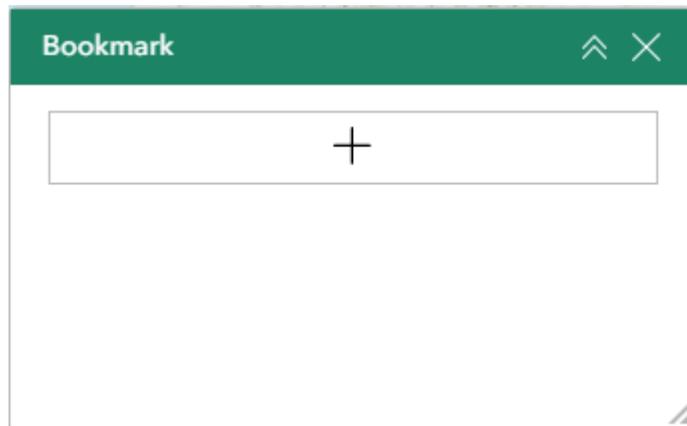
 **Distance** - Click this button, choose a unit of measurement from the drop-down list, then single-click the first point of your line on the map. Continue to single-click until you have finished measuring your linear feature. Double-click to end. Results will appear in the Measurement window.

Bookmark

The **Bookmark** widget enables users to navigate to predefined map locations.

To **Create** a bookmark, navigate to the desired map extent and click on the Bookmark widget  in the widget controller.

- Click on the plus  icon in the window.



- Click on the name of the bookmark to rename it. Click on the trash  icon on the right to remove the bookmark.



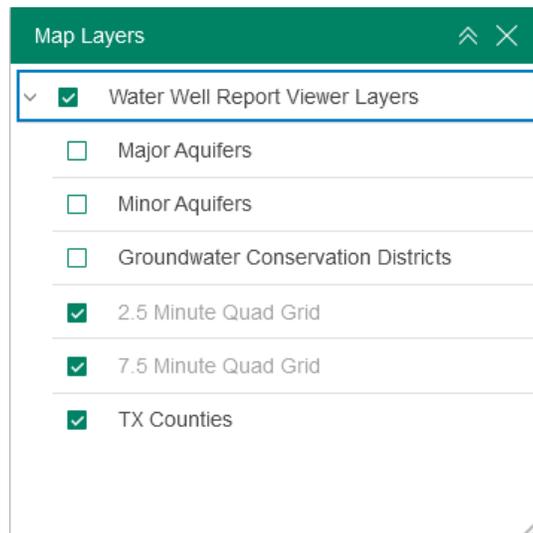
- To close the window, click the close (x) button  in the upper right-hand corner.
- To collapse the window, click the collapse/expand button  just to the left of the close button.

Layers

The **Layers** widget can be used to turn on and off data layers such as the Major Aquifers and Groundwater Conservation Districts.

To **view** the layers, simply click the **Layers** button  in the widget controller. Then browse through the available layers.

To **Toggle the layer visibility**, locate the layer in the list and click on the checkbox next to the layer name. This toggles the visibility on and off the map.



Expand the layer by clicking the small arrow to the left of the check box. Here you can see the layer symbology.

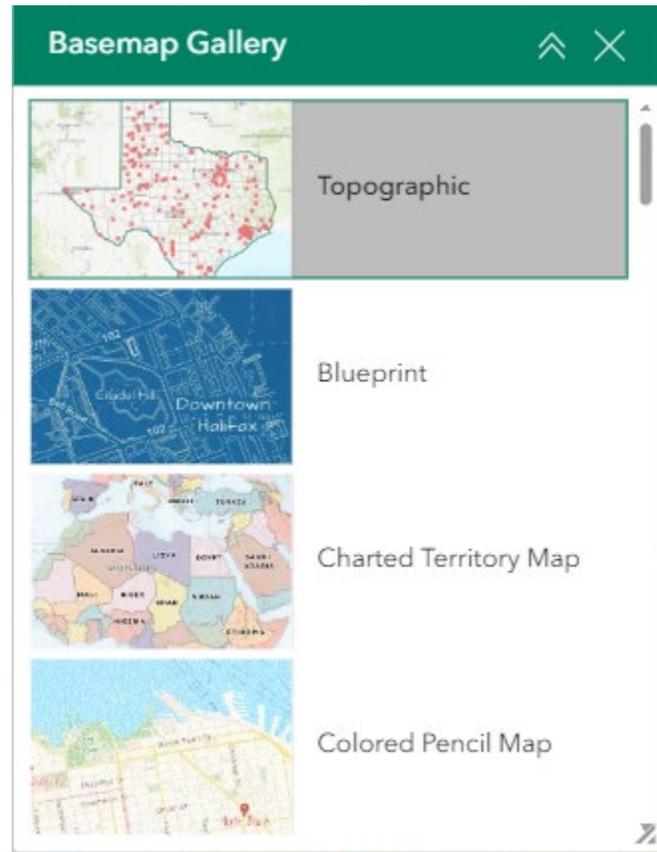


- To close the window, click the close (x) button  in the upper right-hand corner.
- To collapse the window, click the collapse/expand button  just to the left of the close button.

Basemap Gallery

The **Basemap Gallery** widget can be used to change the background in the map viewer. The topographic basemap is the default basemap.

To change the basemap, click on the Basemap Gallery widget  on the widget controller, then select the basemap you wish to use.

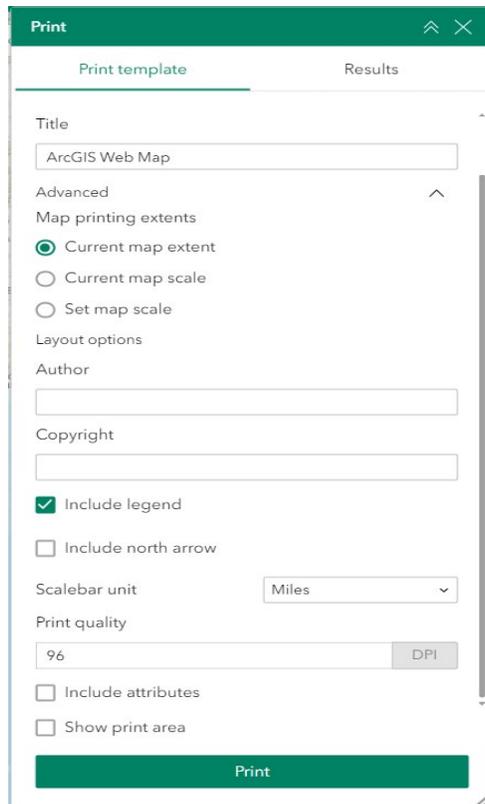


You may choose from thirty-four different basemaps.

- To close the window, click the close (x) button  in the upper right-hand corner.
- To collapse the window, click the collapse/expand button  just to the left of the close button.

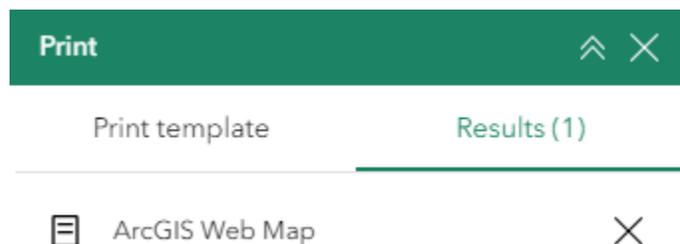
Print

Use the **Print** widget  to save the current map as a pdf file. You may give it a customized title and select a layout and size. Advanced features include ability to add map scale, author, copyright, north arrow, and legend. You may also set the map extent and printing quality.



The screenshot shows the 'Print' widget in the 'Print template' tab. The title is 'ArcGIS Web Map'. Under 'Advanced', 'Map printing extents' is set to 'Current map extent'. Under 'Layout options', 'Author' and 'Copyright' are empty text boxes. 'Include legend' is checked, while 'Include north arrow' is unchecked. 'Scalebar unit' is set to 'Miles'. 'Print quality' is set to '96 DPI'. 'Include attributes' and 'Show print area' are unchecked. A 'Print' button is at the bottom.

After clicking print, the results will show in the results panel of the Print window.



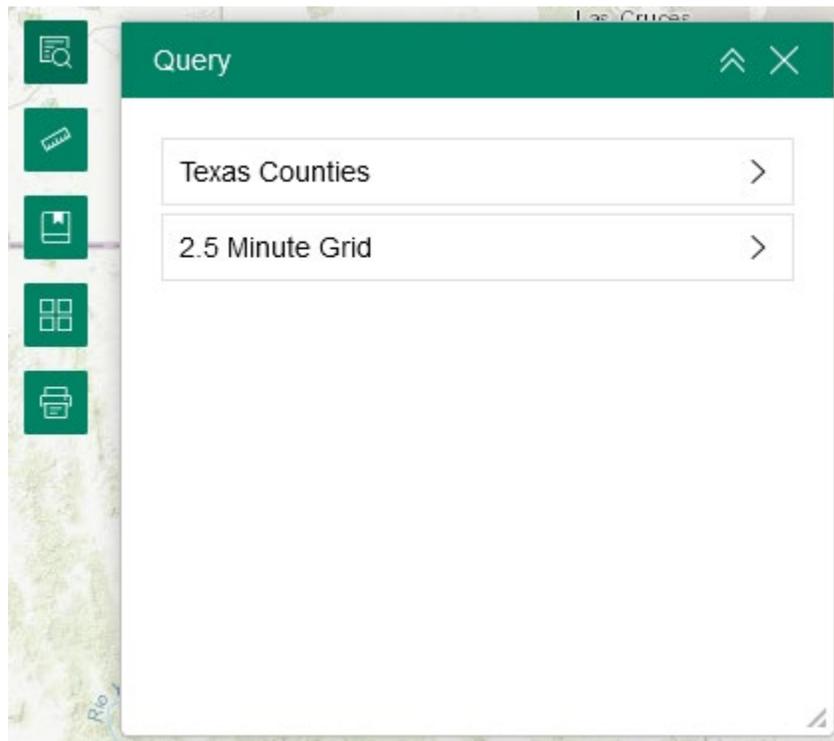
- To close the window, click the close (x) button  in the upper right-hand corner.

- To collapse the window, click the collapse/expand button  just to the left of the close button.

Analysis Widgets

Query

Used to select and execute predefined queries. Two queries are defined, search by county name or search by 2.5 minute grid number.



Query by Texas County

Click on the dropdown button to choose from the list of counties, then hit the Apply button to execute the query.

Query

← Texas Counties

Attribute filter

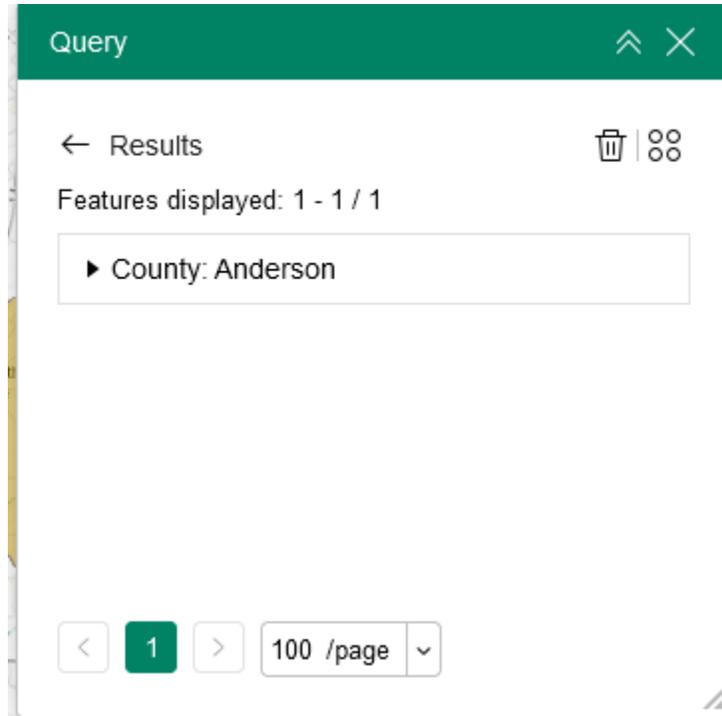
County name is

- All -

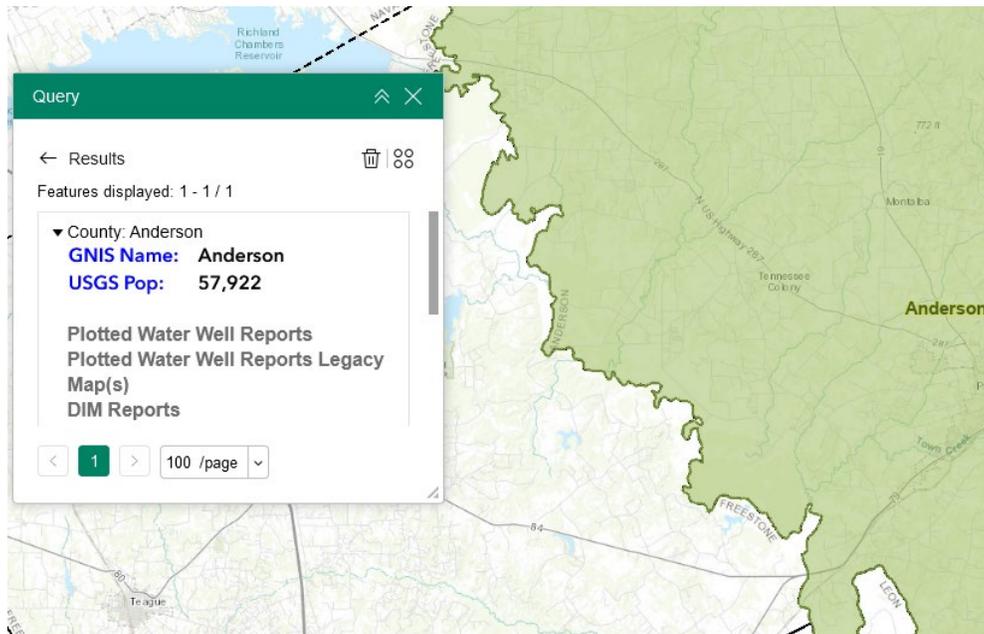
Search

- ✓ - All -
- Anderson
- Andrews
- Angelina
- Aransas
- Archer
- Armstrong

The map will zoom to the matching county and you'll be presented with the county information dialog.



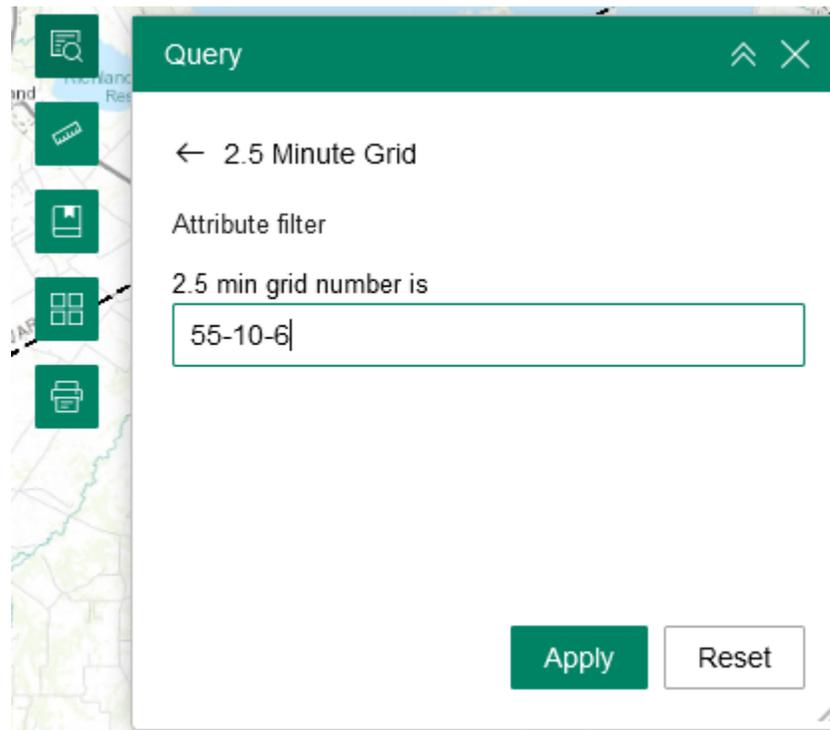
Click the drop down arrow next to County to see more information.



Query by 2.5 Minute Grid Number

Enter a valid grid number, then hit the Apply button.
Grid numbers are in the format xx-yy-z where

- xx = number between 1 and 89
- yy = number between 1 and 64
- z = number between 1 and 9



If a valid grid number is entered the map will zoom to the matching grid and the grid's information pop-up will be shown.

Search

 Type in an address or place into the bar to search for a location. As you type, you will be presented with similar matches. If you see your desired location appear, simply click on it and the map will zoom to that location. Or you can complete typing in the location and then press Enter on the keyboard or click the magnifying glass. You can click the X on the bar to clear out the search bar.



The following are examples of the types of searches you can perform.

- Addresses: 100 Congress Ave, Austin, TX, 78701
- Names: Zilker Park
- Counties: Travis County

Attribute Table

To view the attribute table, click on upward facing caret  icon at the bottom of the viewer. The attribute table will expand. To collapse the attribute table, click on the downward facing caret  icon at the top of the table.

2.5 Minute Quad Grid

7.5 Minute Quad Grid

TX Counties

TXGRID_	TXGRID_ID	DEGTX	SEVMINTXT
37,652.00	37,120.00	29	38
37,653.00	37,137.00	30	35
37,654.00	37,121.00	29	38
37,655.00	37,136.00	30	35
37,656.00	37,122.00	29	38

Total: 50,977 | Selection: 0

Map Tools

The zoom tools are located on the bottom right hand side of the map application.



Zoom In



Click the plus button once or multiple times to **zoom in** at fixed increments.

Zoom Out



Click the minus button once or multiple times to **zoom out** at fixed increments.

Previous Extent



Click left arrow button at the bottom right of the map after zooming in or out to return to the previous extent.

Next Extent



Click the right arrow button at the bottom right of the map to proceed forward one extent from the previous extent.

Home



Click the home (house) button once to return to the default extent

My Location



Clicking the bullseye button will take you to your current location.

Scale Bar



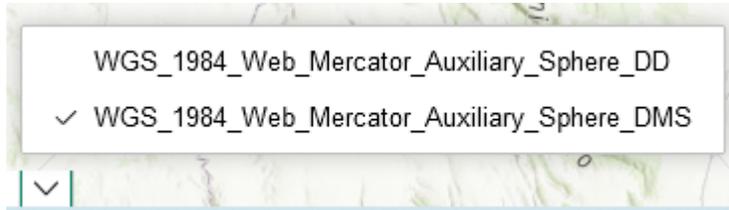
Shows the scale of the map at your current extent, located in the bottom left corner of the viewer window.

Coordinates

The **Coordinates** widget is found on the bottom left corner of the viewer window, above the scale bar. The coordinates automatically update to the location of the cursor in the viewer window.



- There are two types of coordinates that can be collected: decimal degrees (DD) or degrees, minutes, seconds (DMS).
- To change to DMS click on the downward facing caret  and select WGS_1984_Web_Mercator_Auxiliary_Sphere_DMS.



- To get the coordinates of a particular location on the map, click on the bullseye  icon.
 - Click on the map to create a marker . The coordinates widget will update with the coordinates of the marker.
- 
- You can copy the coordinates of the marker by clicking the papers  icon.

Full Screen



Click the dashed square button in the top right of the map to have the viewer expand to cover your whole screen. To return to the normal view, click the updated inner plus button  in the top right corner of the map.

Overview Map

The **Overview Map** tool provides users with a smaller navigational map that offers an overview of the entire map or application. It helps users quickly locate their position within the larger map and navigate more efficiently.

To use the **Overview Map** tool, click the expand arrow  icon located in the upper-right corner of the map, directly below the **header bar**.



A small map will appear, displaying your current view within a larger extent.



- To pan, click and drag the dark grey rectangle within the overview map to adjust your location.
- To collapse the small map, click on the **Overview Map Icon**  again.

Contact Us

E-mail the Water Availability Division at gpat@tceq.texas.gov or talk with staff in the program at 512-239-4600.