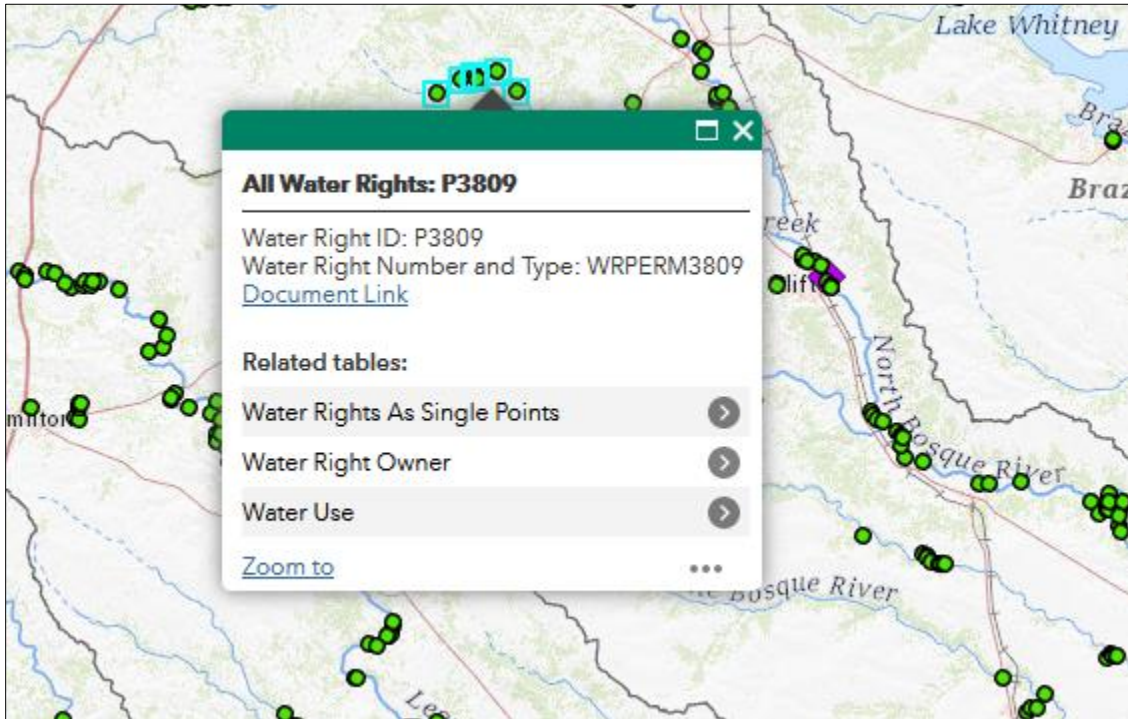# Water Rights Viewer
User Guide

Application Overview

The TCEQ Water Rights Viewer includes information about water rights authorizations and other water related information such as river basins and streams. A user can find information about the location of authorized water rights points, a copy of the water right and the Adjudication Final Determination, current ownership of the water right, recent water use data, and TCEQ's adopted environmental flow standards. A user can also find administrative boundaries such as Watermaster Areas, Regional Water Planning Areas and Groundwater Conservation Districts.
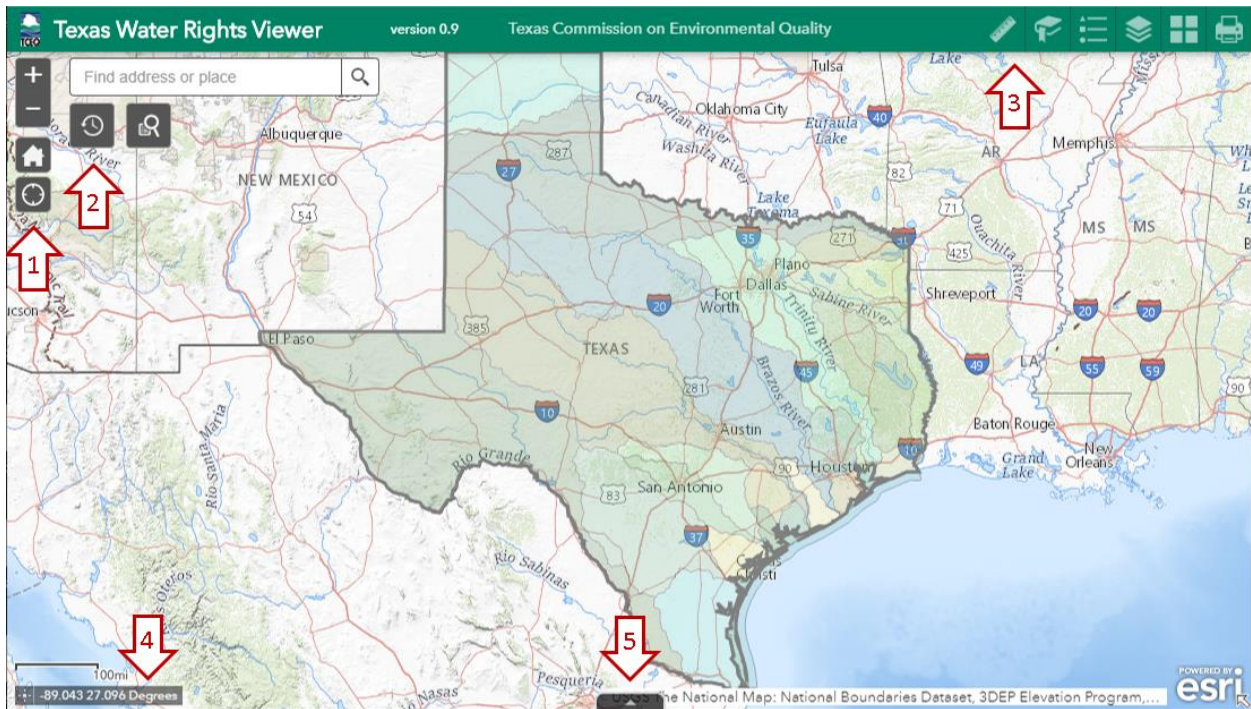
Contents

Navigating Around the Map

The figure below shows the default extent of the Viewer map and the locations of the groups of tools available. The groups include:

1. Zoom Tools

2. Water Rights Query Tools

3. Main Toolbar

4. Scale Bar and Coordinate Indicator

5. Attribute Tables

Basic navigation and use of the tools is explained in the following sections.

Basic Navigation:

While map tools provide advanced browsing capabilities, you can perform basic map navigation just by using your mouse.

Scale Dependent Rendering

Most layers in the map use scale dependent rendering, which means their visibility is governed by the current zoom level. For example, you will typically see major river basin boundaries but not individual water right locations when zoomed to the entire state. When zoomed in to the county level, the major basin boundaries fade away while water right locations become visible. To check whether a layer is zoomed beyond its visible scale range, you can look in the Layer List widget and see if the layer name is gray (not visible at this scale) or black (visible at this scale).

Showing the right pop-up
You can click a feature in the map to show a pop-up with more information. When more than one clickable feature is present, the pop-up includes arrows that let you browse the different features at that location. Click the arrows until you find the pop-up related to your feature of interest.
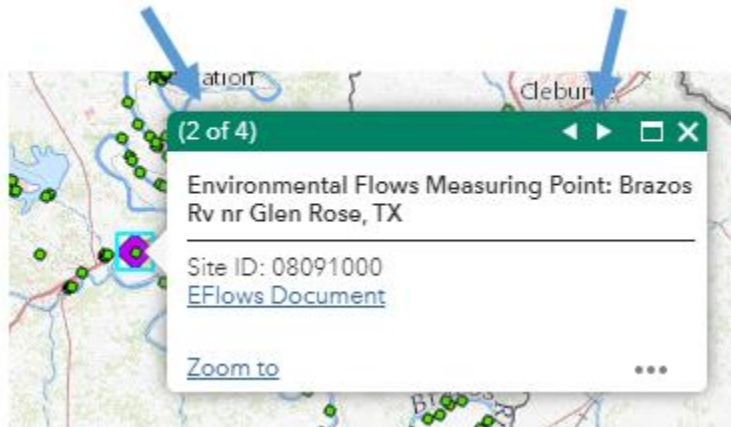
Finding latitude and longitude for a given location in the map
Click Measure, and then click the Location button. Now you can see latitude and longitude coordinates as you hover your mouse over the map.

Water Rights
The **All Water Rights** layer shows water right points, such as locations where a water rights holder may divert water from a river. Clicking one point will highlight all points in the map associated with that water right.

The pop-up includes a link to the water right document. You'll also find links to related records such as owners and water use.

To see individual locations associated with a water right, first turn (i.e., check) on the **Water Rights As Single Points** layer using the Layer List. You can then click a point in the map and cycle through the pop-ups to see the individual location's attributes and the overall water right's attributes.

Environmental Flows
From the [TCEQ website](#):
> An environmental flow is an amount of water that should remain in a stream or river for the benefit of the environment of the river, bay, and estuary, while balancing human needs. (For the legislative definition of an environmental flow regime, see (Title 2, Texas Water Code, Section 11.002.16.)

TCEQ has established environmental flows recommendations at select locations throughout Texas. These locations are commonly associated with stream gages, whose measurements help decision makers identify when certain environmental flows thresholds are being reached.

The **Environmental Flows Measuring Point** layer shows these environmental flows locations. The pop-up for each location includes a link to the environmental flows document for that location.

Stream Network
The National Water Model (10 Day Forecast) layer includes forecasted streamflow for river segments in the contiguous United States. Click a stream segment to show forecasted streamflow conditions for that segment with links to more information. The forecast comes from the National Weather Service's National Water Model, and includes a forecasted streamflow value every three hours up to 10 days out. The pop-up for a stream segment includes the time stamp for which the forecasted value applies. While only one value is visible in the pop-up, you can use the Time Slider widget to adjust the currently visible date and time.

Note that the time slider covers the dates and times for the stream network layer at the time you first loaded the map. If a new forecast is harvested while you are viewing the map, the first few steps in the time slider may no longer show any streams. This is because the new forecast doesn't cover the older dates in the time slider, which originated from an older forecast. If you notice that streams are

no longer visible, or that pop-ups for streams no longer work, it is likely that a new forecast was harvested. To address this problem, you can either move the time slider forward, or refresh your browser.

Zoom Tools:

 Zoom In – Click this button once or multiple times to ***zoom in*** at fixed increments

 Zoom Out – Click this button once or multiple times to ***zoom out*** at fixed increments
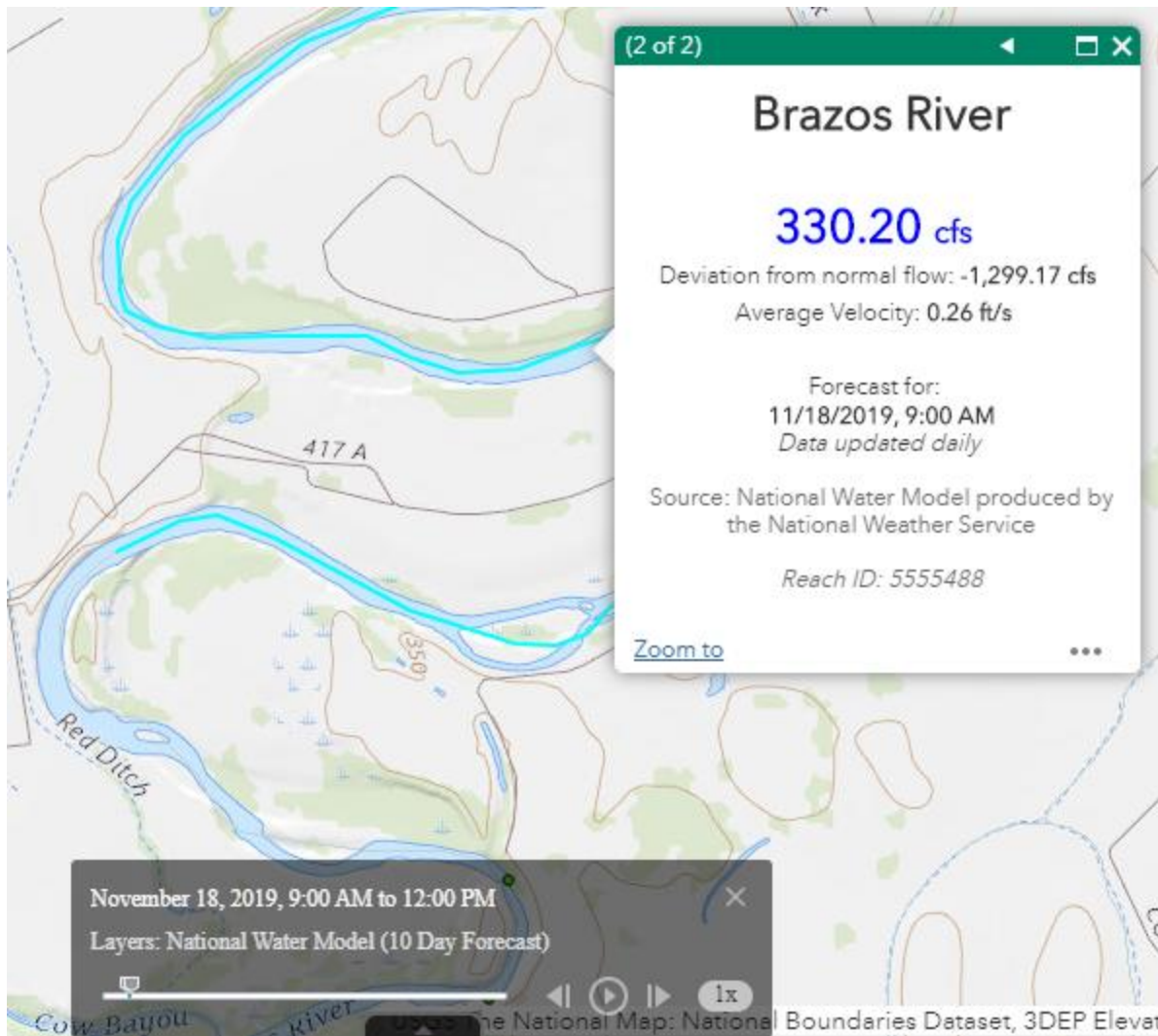
 Home – Click once to return to the default extent

 My Location – Clicking this button will take you to your current location.

Tools:

 Time Slider – Click to this button to activate a time slider at the bottom of the window that allows you to control which forecasted streamflow values are displayed. Forecast data originate from NOAA's National Water Model 10-day forecast.

- The color and width of each stream segment depend on the streamflow value at the given forecast time.

- Click a stream segment to view the streamflow value at the given forecast time.

Brazos River

330.20 cfs

Deviation from normal flow: -1,299.17 cfs

Average Velocity: 0.26 ft/s

Forecast for:
11/18/2019, 9:00 AM
Data updated daily

Source: National Water Model produced by
the National Weather Service

Reach ID: 5555488

Zoom to   •••

November 18, 2019, 9:00 AM to 12:00 PM

Layers: National Water Model (10 Day Forecast)

⊲ ⊙ ⊳   1x

...he National Map: National Boundaries Dataset, 3DEP Elevat...

Query – Click to locate a water right by its identifier or owner name.

- Click the Query tool, and then click to select by ID or Owner.
- In the Query window, select a water right identifier or owner and click Apply. Tip: When you click the drop down list of identifiers or owner names, you'll see a search box where you can type part of the identifier or owner name to filter the list.

Query   ×

                 Tasks   Results

←   Select Water Right By ID

Query criteria
Water Right ID is

C1169   ▾

e.g., C1169

UPPER(WR_ID) = 'C1169'

Result layer name

Select Water Right By ID _Query result

Apply

d

- If querying by identifier, the map will zoom to the selected water right, and you will see the water right's attributes and a link to the water right PDF.
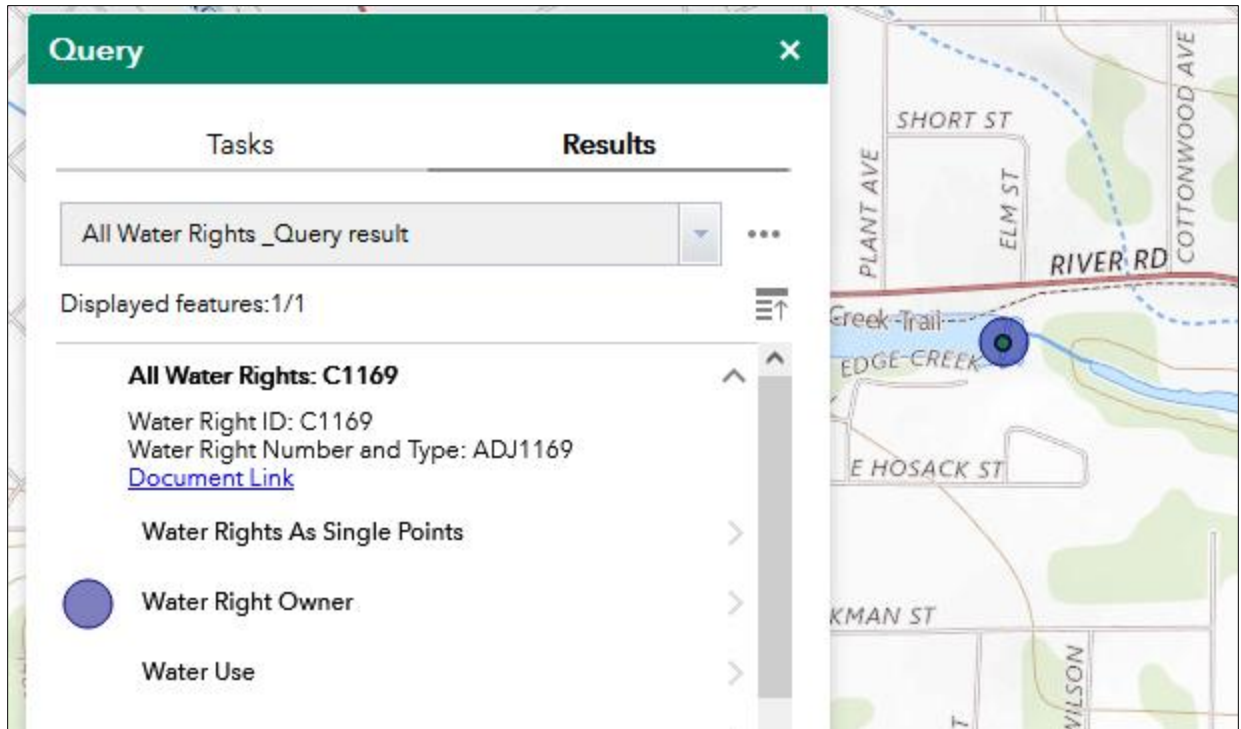
- If querying by owner name, you will see a list of all matching water rights. For a given water right, click All Water Rights and the map will zoom to the selected water right. Note that PDF links are not available when querying by owner name. To see the water right PDF, click the water right point in the map, and find the Document Link in the pop-up that appears.
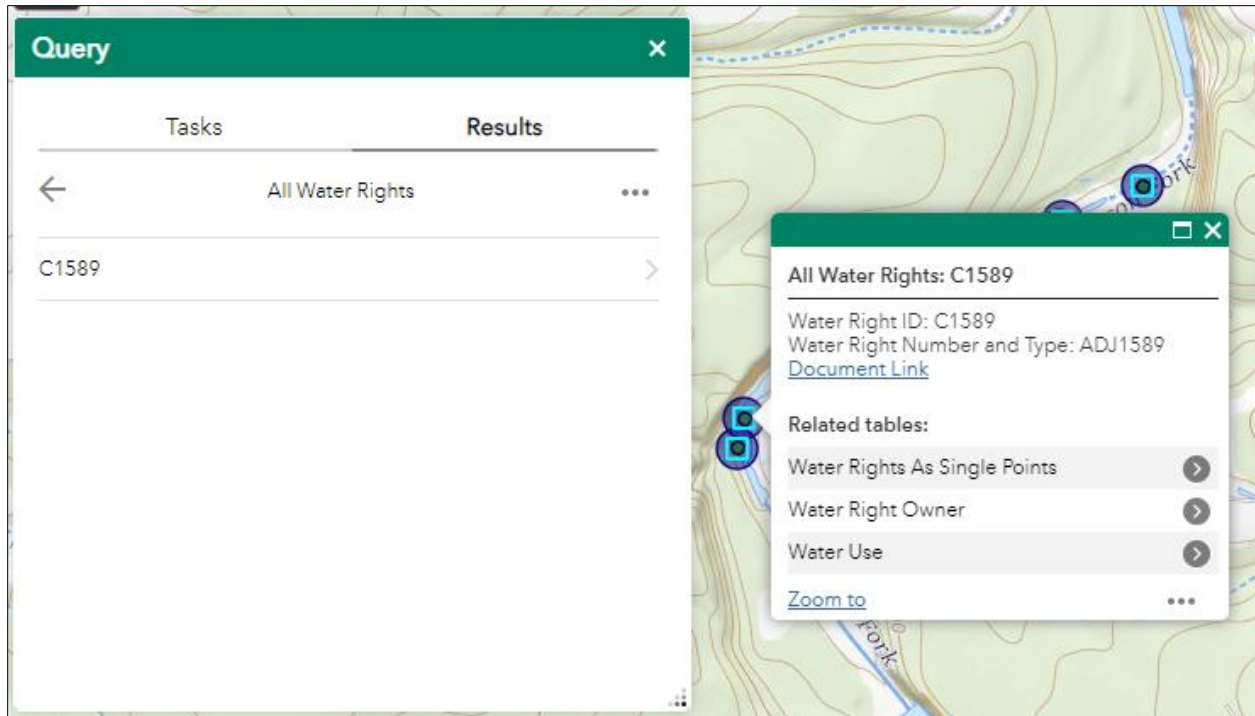
Search Bar – Type in an address or place into the bar to search for a location. As you type, you will be presented with similar matches. If you see your desired location appear, simply click on it and the map will zoom to that location. Or you can complete typing in the location and then press Enter on the keyboard or click the magnifying glass. You can click the X on the bar to clear out the search bar.
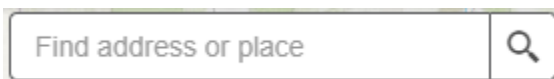
The following are examples of the types of searches you can perform.

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

Note that the search bar is primarily for place names and street addresses. To find specific water rights, use the query tools instead.

Main Toolbar:

Measure

- The Measure tool enables the user to measure point, linear, and area features on the map.
- To measure a feature, click on the **Measure** tool on the main toolbar.

- The Measure window will appear as shown below.

- To close the window, click the in the upper right-hand corner. To collapse the window, click the just to the left of the close button.
- There are three 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 Measure window.

  Distance - Click this button, choose a unit of measure 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 Measure window.

  Location - Click this button, choose a unit of measure from the drop- down list, then click a point on the map then move the mouse across the map. Result will display the coordinates for both the green

indicator and cursor

Bookmarks

- The **Bookmark** tool can be used to view a particular map extent (or zoom area).
- To **view** a bookmark, click on the Bookmark tool in the main toolbar.

- To close the window, click the in the upper right-hand corner. To collapse the window, click the just to the left of the close button.

Bookmark		
📍 Texas		

Legend

- The **Legend** tool shows the symbology for the selected layers that are set using the layers tool

- Simply click the **Legend** button in the main tool bar

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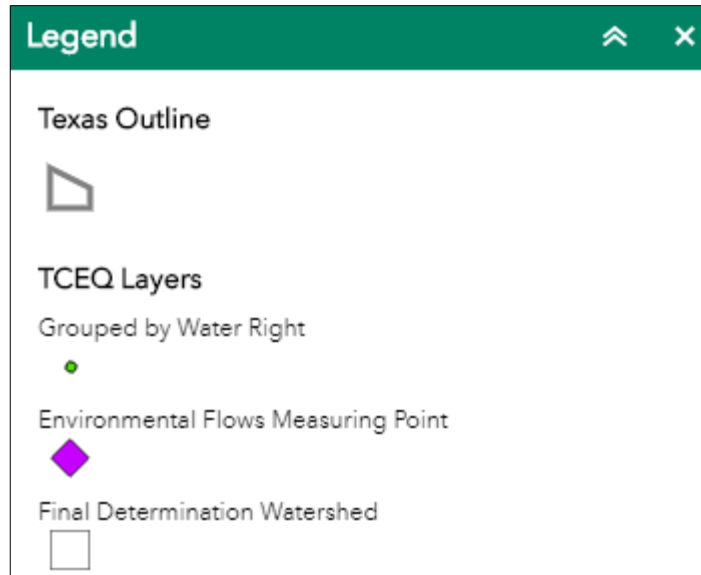
 Layers

- The **Layers** tool can be used to turn on and off data layers such as the Surface Water Intake and the current query results
- Simply click the **Layers** button in the main tool bar, then check or uncheck the data layers you would like to see.

- To close the window, click the in the upper right-hand corner. To collapse the window, click the just to the left of the close button.
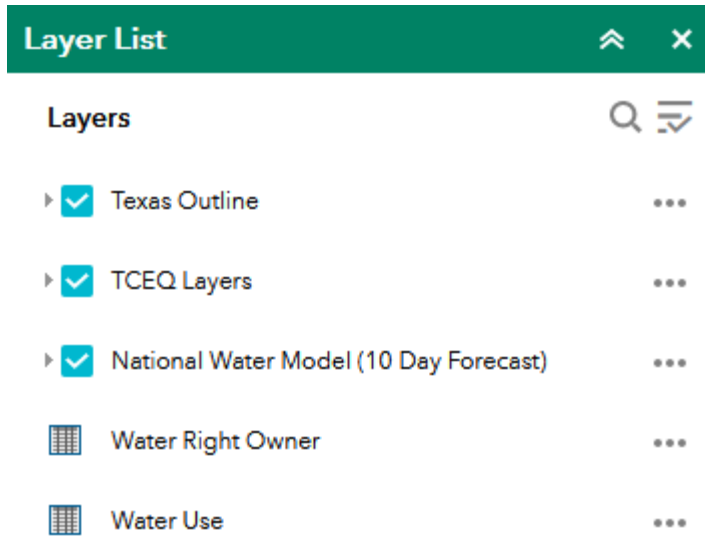
- Expand the layer by clicking the small arrow to the left of the check box. Here you can see the layer symbology.

- Click the three dots to the right to set the layer transparency and drawing order.

 Basemap

- The **Basemap** tool 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 tool on the main toolbar, then select the basemap you wish to use.
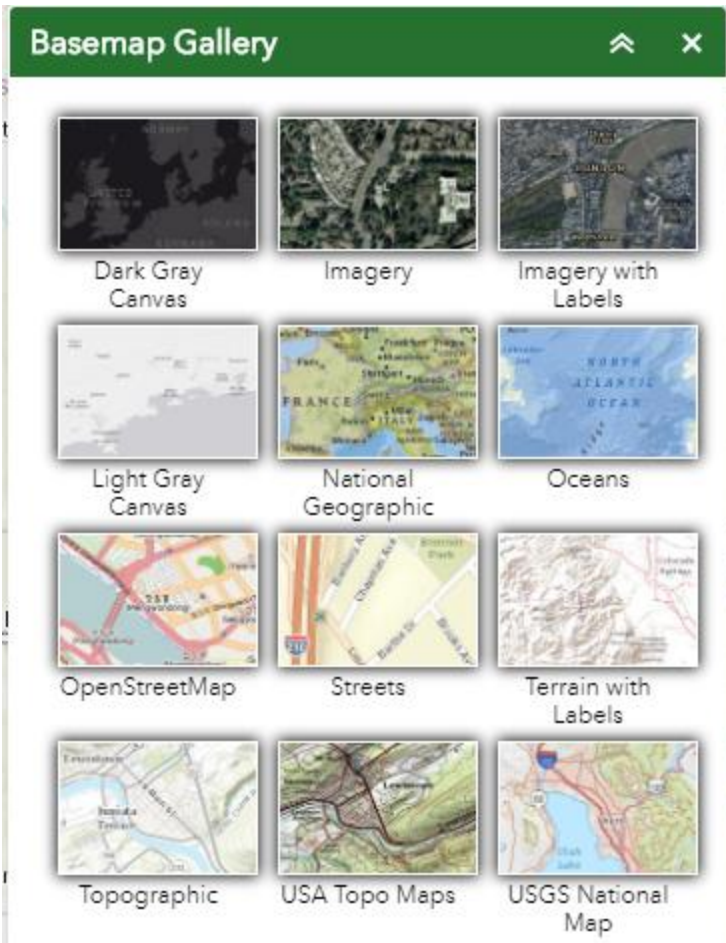
- To close the window, click the ☒ in the upper right-hand corner. To collapse the window, click the ⌃ just to the left of the close button.

- You may choose from twelve different basemaps. Note: Some basemaps (such as Open Streetmap) are not visible when zoomed in too close.

🖨 Print

- Use the **Print** tool 🖨 to save the current map to an image file. You may give it a customized title, select a layout and size, and format. Advanced features include ability to set map scale, pixel dimensions, and DPI.
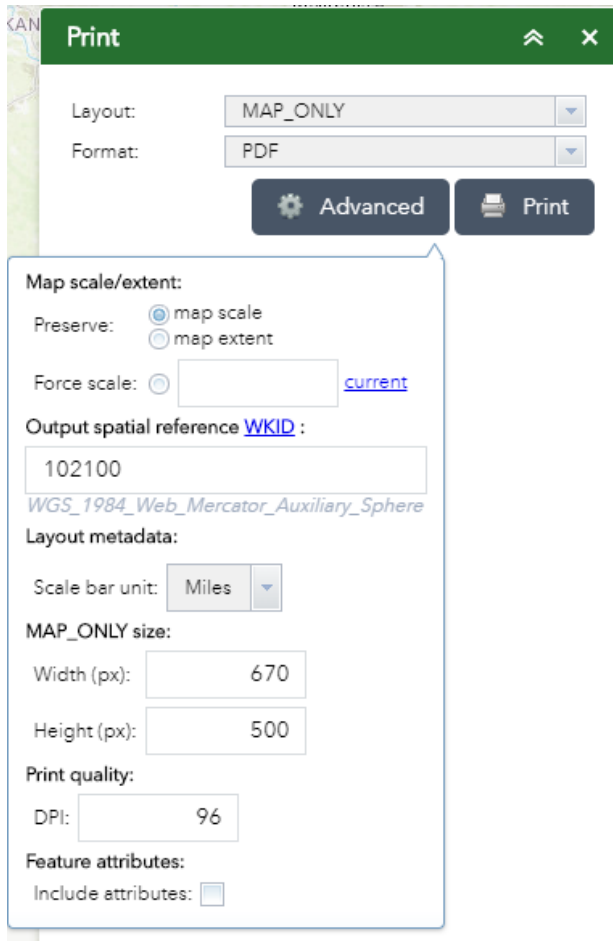
Coordinate Indicator:

- Click this tool, then click anywhere on the map to obtain the coordinates in decimal degrees.
- The tool will also show the coordinates of your current mouse position over the map.

Attribute Tables:

Click on the Attribute Table button - - in the bottom center of the map to display a tabular view in the lower half of the screen for map layers. The table is arranged so that each row represents a map feature and each column provides information about the feature. To close the table view, click the button again.

The attribute table has several controls:

- **Options** - Use the Options drop down menu to filter attributes, show and hide columns, or to export the table.

- **Filter by Map Extent** - Click this button to only show the attribute information for features in the current map view.

- **Zoom To** - Select a feature by clicking its row in the table, and then click the *Zoom* button to zoom to its location.

- **Clear Selection** - Click this button to clear your previous selections.

- **Refresh** - Click this button to reload the attribute table.

Contact Us

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