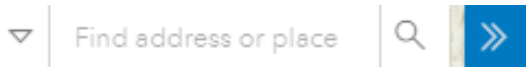
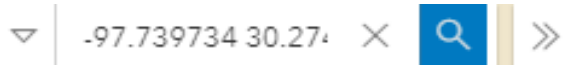
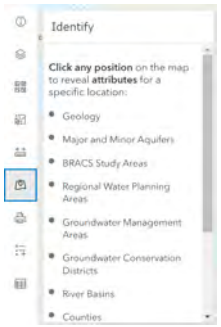
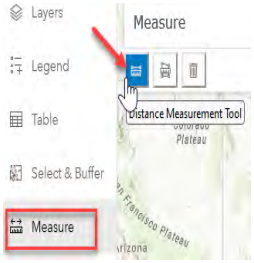
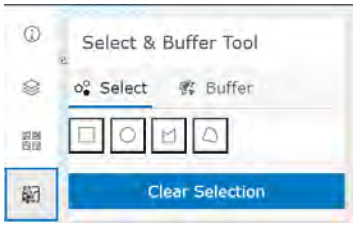
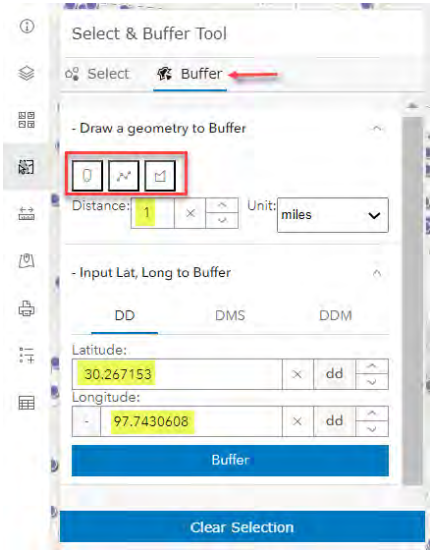
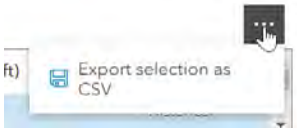
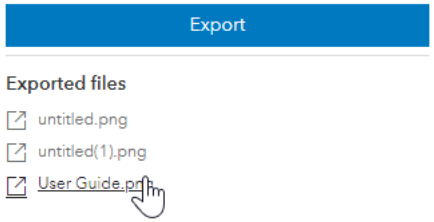
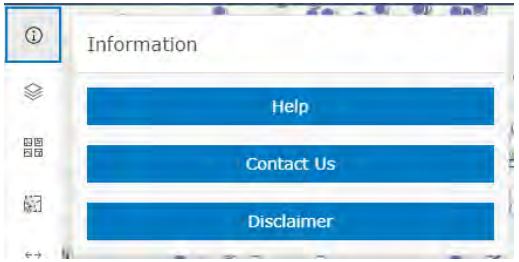
Quick Reference Guide

Water Data Interactive: Groundwater Data Viewer

Application Support Email:WDI-Support@twdb.texas.gov

How to...	Tool(s)	Steps
Find a well by State Well or Tracking number		Click on the Search Tool (magnifying lens) and start typing a well number (Groundwater Well Number or Driller Tracking Number). Matching numbers will begin to appear; you can then select or continue to type the complete number. Searchable well number results can include: • Submitted Driller's Plugging Report • Submitted Driller's Well Report • Brackish Groundwater • TWDB Groundwater Database
Enter a X,Y coordinate value (Longitude/Latitude) and zoom to it		Using the Search Tool, enter coordinates: •'Negative Longitude' 'comma or space' 'Latitude' •Values must be in decimal format. •Example: -97.739734 30.27472 note: Latitudes and Longitudes on the map are displayed in WGS 1984
Display the X,Y coordinate value of any location on the map		Select the **Identify tool**, then click anywhere on the map. • *Coordinates are displayed along with general location information* *note: Latitudes and Longitudes on the map are displayed in WGS 1984 coordinates*
Identify general information about any location on the map		Using the Identify Tool, Click any position on the map to reveal basic location information: Geology, Major Aquifer, Minor Aquifer, RWPA, GMA, GCD, River Basin, 7.5' USGS Grid, 2.5' State Grid, County, Latitude, Longitude, Land Elevation
Measure the distance between locations on the map		Select the Measuring Tool. Start to measure by clicking in the map to place your first point. Click the point to measure to. Continue measuring or ESC to clear.

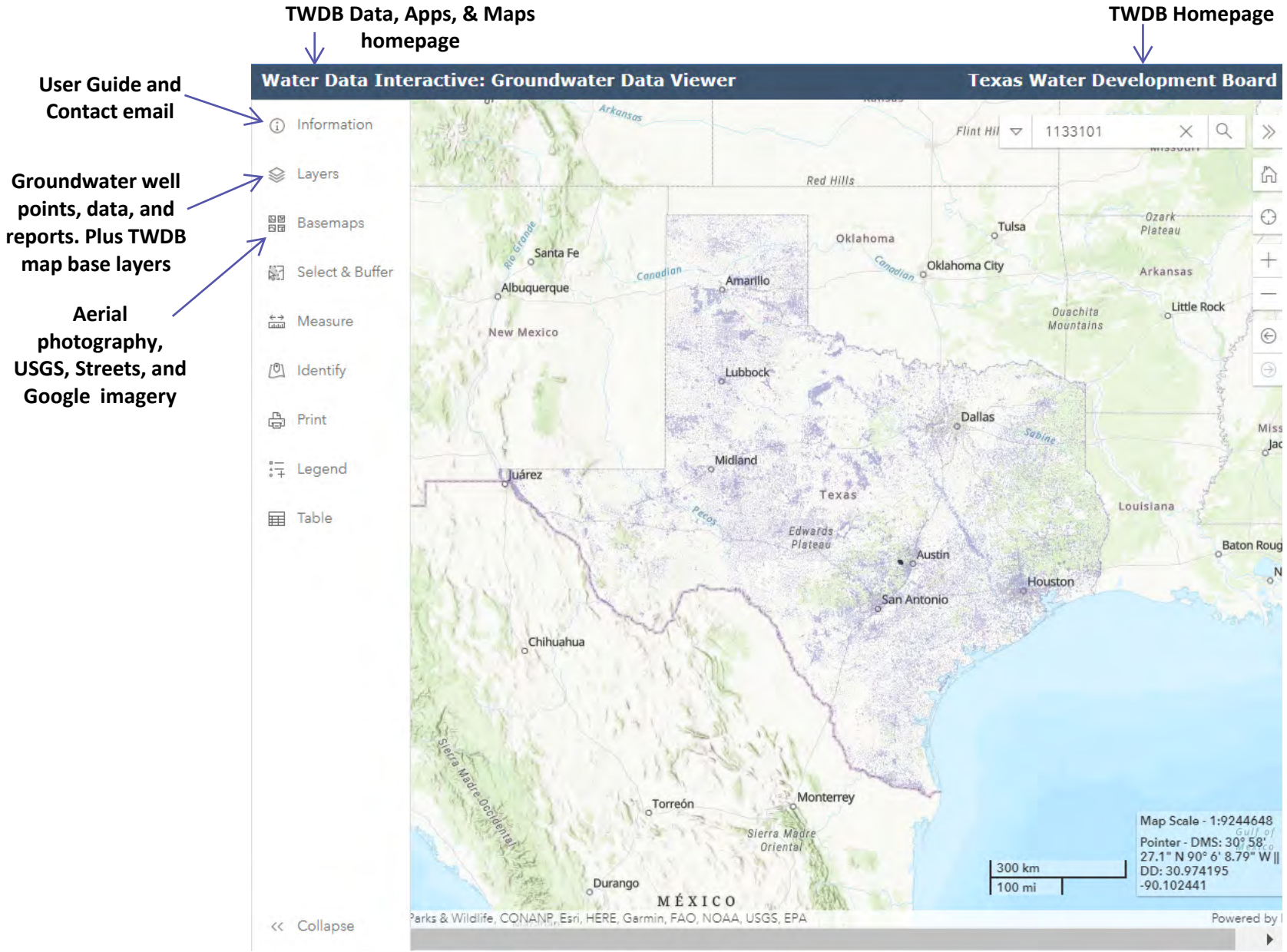
How to...	Tool(s)	Steps
Show the Feature Table.	 	• Click on the Table button • Click the Show Feature Table toggle • Click the toggle again to hide
Select and Buffer		• Choose Select • Choose a selection method • Make selection on map
		• Choose Buffer • Set the buffer distance and unit of measure • Choose geometry to buffer by, or • Enter a latitude and longitude to buffer from and Buffer • Click Clear Selection to clear all sites Note: all selections are cumulative until 'Clear Selection' is pressed.

How to...	Tool(s)	Steps
Export well information to CSV file format. *(Microsoft Excel readable)*	 	Using the **Select & Buffer Tool**: • Select wells • Export from the result table
Print a map	 	Using the **Print Tool**: • Enter a map title • Select page setup • Select more advanced options • Click Export • Click the title link to download the map
Get additional Help		Click **Information**: • Click Help for a User Guide • Contact Us to connect • Click for a Disclaimer

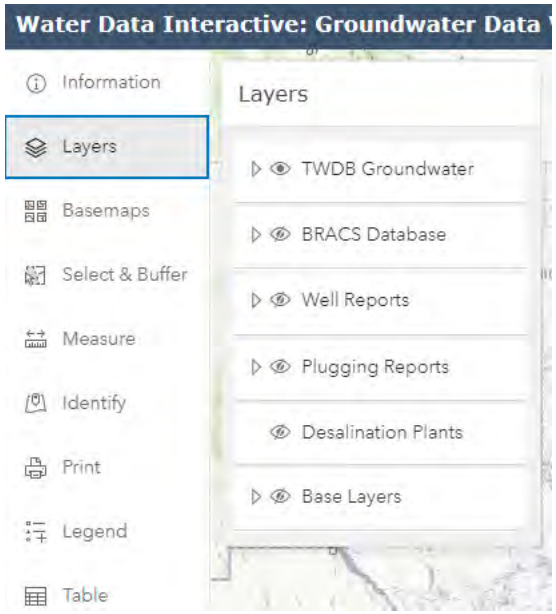
User Guide: This document provides an overview of the Groundwater Data Viewer and highlights a few of the primary navigation and tool areas users will most likely want to interact with.

Table of Contents

Section 1. General Information



Section 2. Groundwater Data

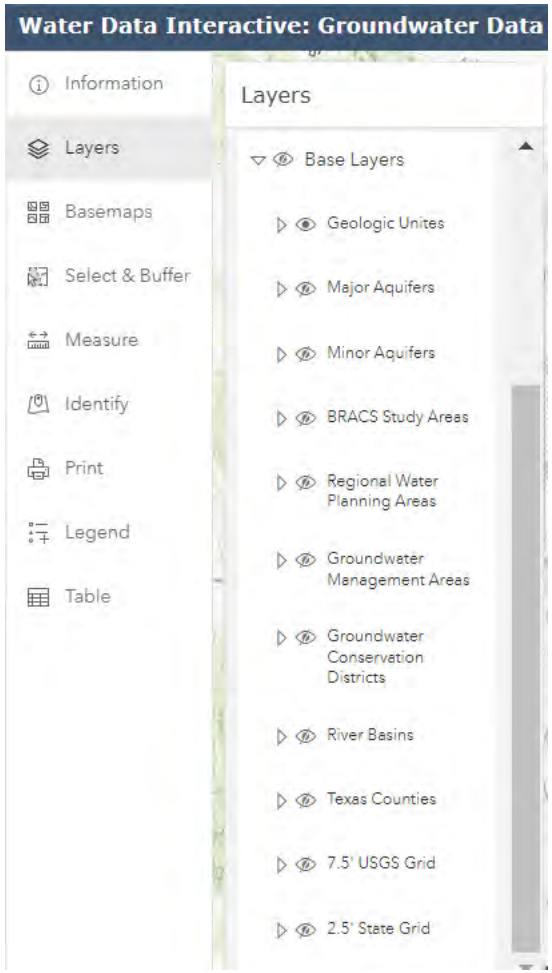


- Click the eye icon to show and hide a layer.

Groundwater Data: *Coordinate system is WGS 1984*

TWDB Groundwater Data	Texas Water Development Board's (TWDB) Groundwater Database. This database contains information on selected water wells, springs, oil/gas tests, water levels and water quality.
Brackish Groundwater	The Brackish Resources Aquifer Characterization System (BRACS) Database stores well and geology information to help characterize the brackish groundwater resources of Texas. This database contains all types of wells (not just brackish water wells) including those in fresh water zones with linked geophysical well logs, aquifer test information, lithology and stratigraphic picks.
Well Reports	Texas Department of Licensing and Regulation's (TDLR) Submitted Driller's Report Database. This database contains water well reports submitted to TDLR from February 2001 to present.
Plugging Reports	Texas Department of Licensing and Regulation's (TDLR) Submitted Driller's Report Database. This database contains plugged water well reports submitted to TDLR from February 2001 to present.

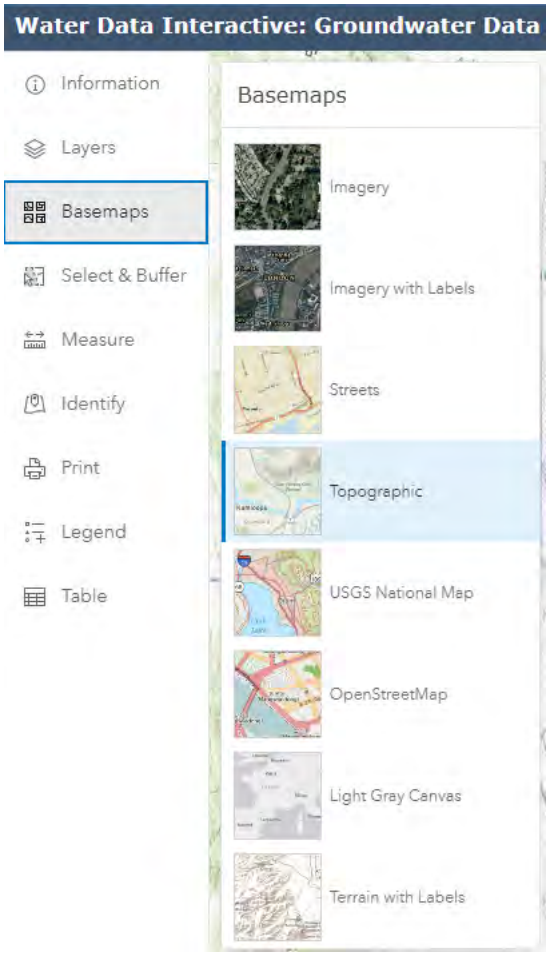
Section 3. Map Layers



Layers: *Coordinate system is WGS 1984 Web Mercator (auxiliary sphere)*

Geologic Units	The Geologic atlas of Texas (GAT). This data set was jointly created by USGS, TNRIS, and the Bureau of Economic Geology. The data includes rock units, members, and structures (faults).
Major Aquifers	The 9 major aquifers of Texas as defined by the TWDB, updated December 2006.
Minor Aquifers	The 21 minor aquifers of Texas as defined by the TWDB, updated December 2006.
BRACS Study Areas	TWDB's Brackish Resources Aquifer Characterization System (BRACS) designed to map and characterize the brackish aquifers of Texas in greater detail than previous studies.
Regional Water Planning Areas	The 16 Water Planning Regions in Texas, created by TWDB, updated November 2014.
Groundwater Management Areas	Groundwater Management Area Boundaries, created by TWDB
Groundwater Conservation Districts	Groundwater conservation districts in Texas. Original data is sourced from TCEQ.
River Basins	The 23 major USGS river basins of Texas
Texas Counties	Texas county boundaries
7.5′ USGS Grid	The USGS 7.5-minute map series grid index. The index grid covers the geographic extent of USGS 1:24,000 topographic maps (7.5- by 7.5-minute quadrangles) for Texas.
2.5′ State Grid	TWDB well location grid. 2.5 minute grid that covers the state of Texas; meant to be used in conjunction with the USGS and other products that display data based upon this type of grid.

Section 4. Base Maps



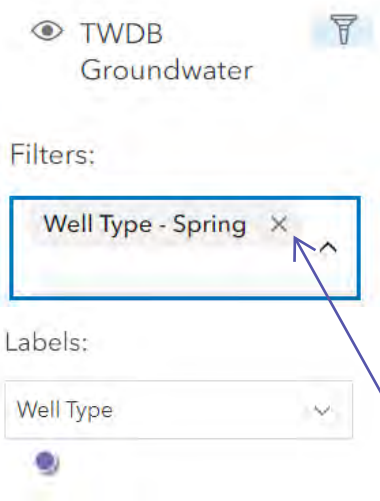
Base Maps: *Coordinate system is WGS 1984 Web Mercator (auxiliary sphere)*

Imagery	The Imagery map is a detailed image map layer designed to be used as a base map for various maps and applications.
Imagery with Labels	The Imagery with Labels map is a detailed image map layer that also includes labels to be used as a base map for various maps and applications.
Streets	The Streets base map presents a multiscale street map for the world.
Topographic	The Topographic map includes boundaries, cities, water featurs,physiographic features, parks, landmarks, transportation, and buildings.
USGS National Map	The USGS National Map combines the various base map services (Boundaries, Names, Transportation, Elevation, Hydrography, Land Cover and others.)
Open Street Map	The OpenStreetMap is a community map layer that is designed to be used as a basemap for various maps and applications.
Light Gray Canvas	The Light Gray Canvas basemap is designed to be used as a neutral background map for overlaying and emphasizing other map layers.
Terrain with Labels	The Terrain with Labels basemap is designed to be used to overlay and emphasize other thematic map layers.

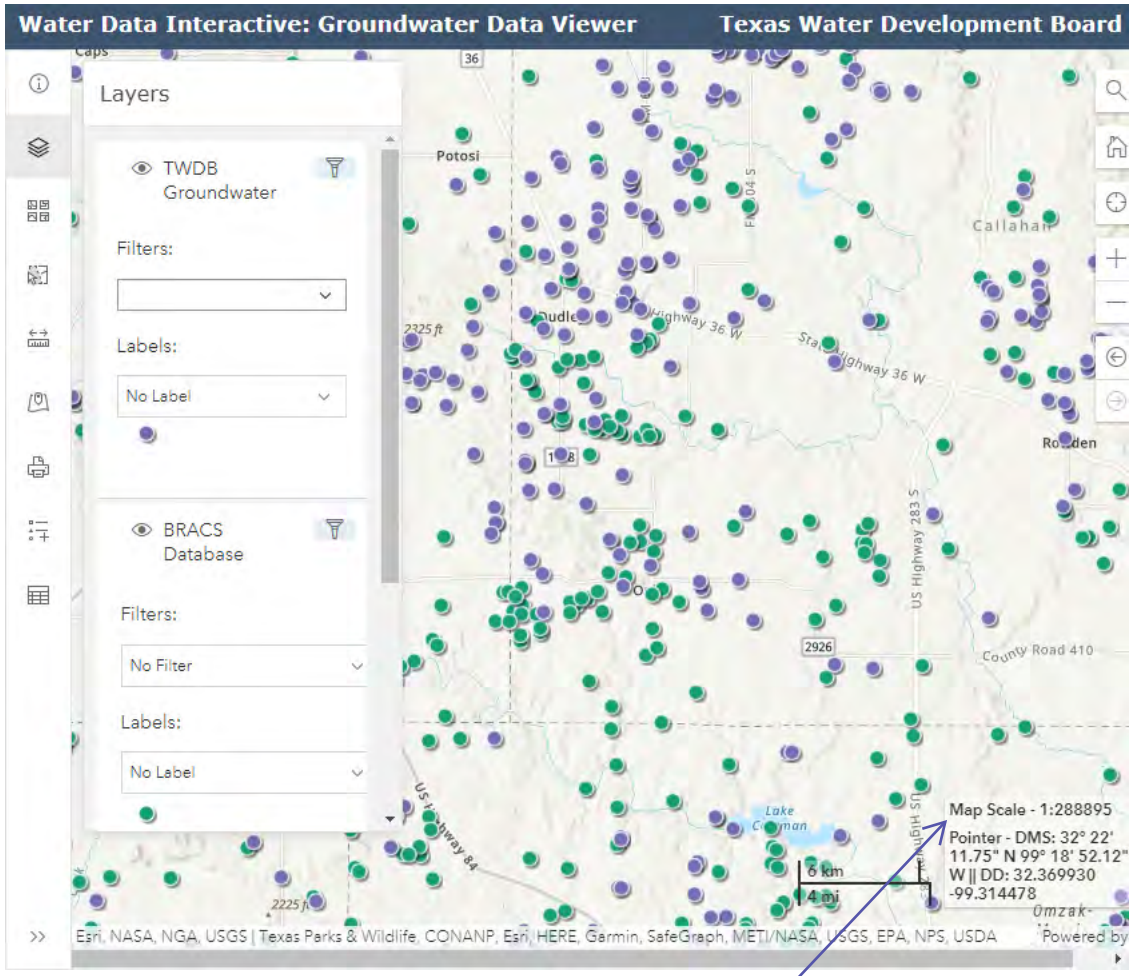
Section 5. Groundwater Filters & Labels

Groundwater Data Filtering and Labeling

- Available at zoom level scale 1:288895 and closer, the Groundwater data points *(TWDB Groundwater, Brackish Groundwater, Well Reports, and Plugging Reports)* can be filtered on type, use, water level and quality availability. Multiple filters can be set simultaneously. Once a filter is set a tab appears that allows the user to keep the filter on or remove it.
  (Example below: filter type 'Spring' Label 'Well Type')

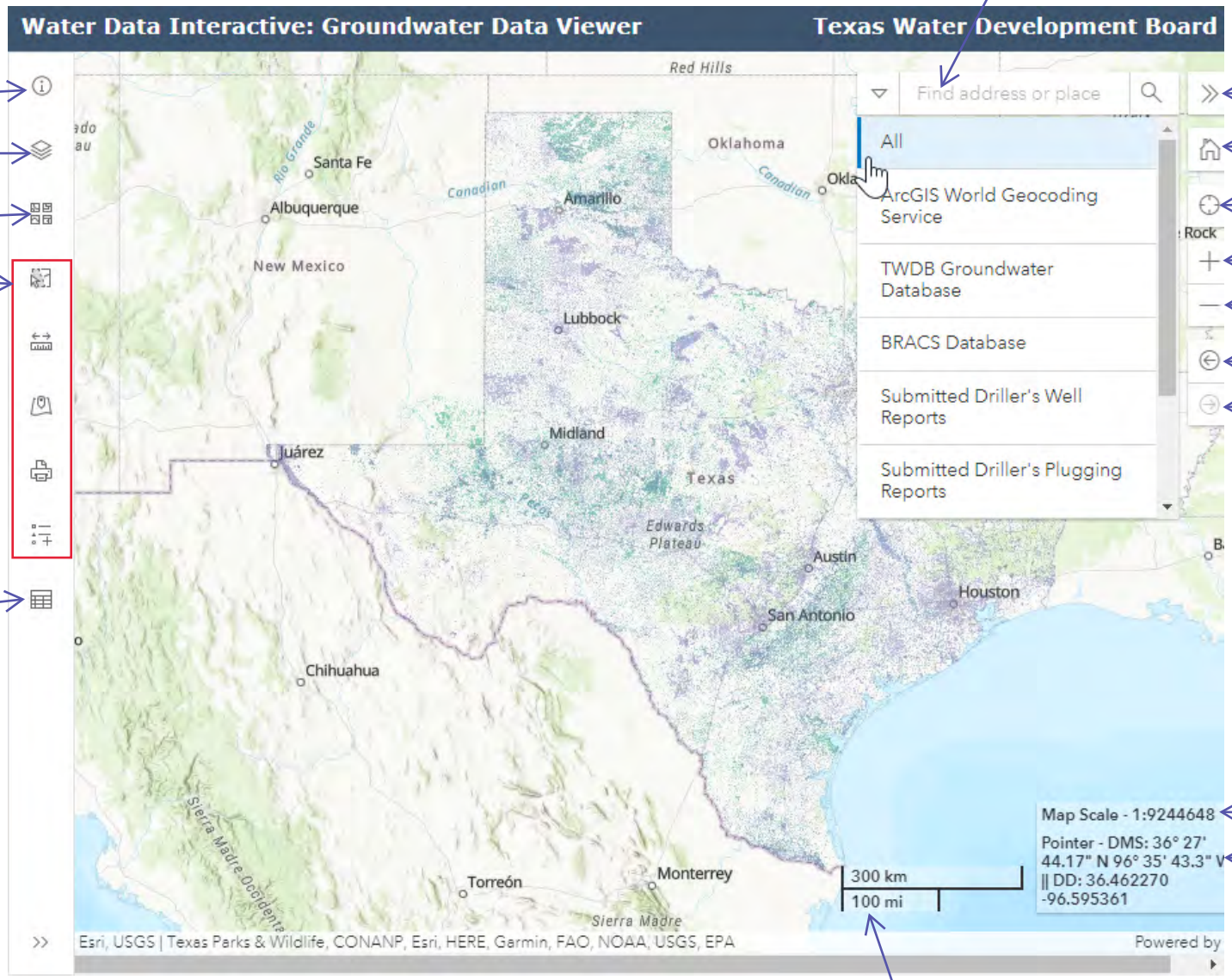


Filter 'on' indicator



Scale at 1:288895 or lower

Section 6. General Navigation



Section 7. Tools

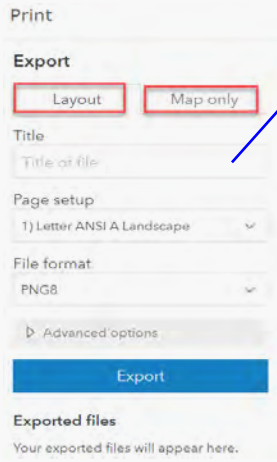
7.1 Print Tool

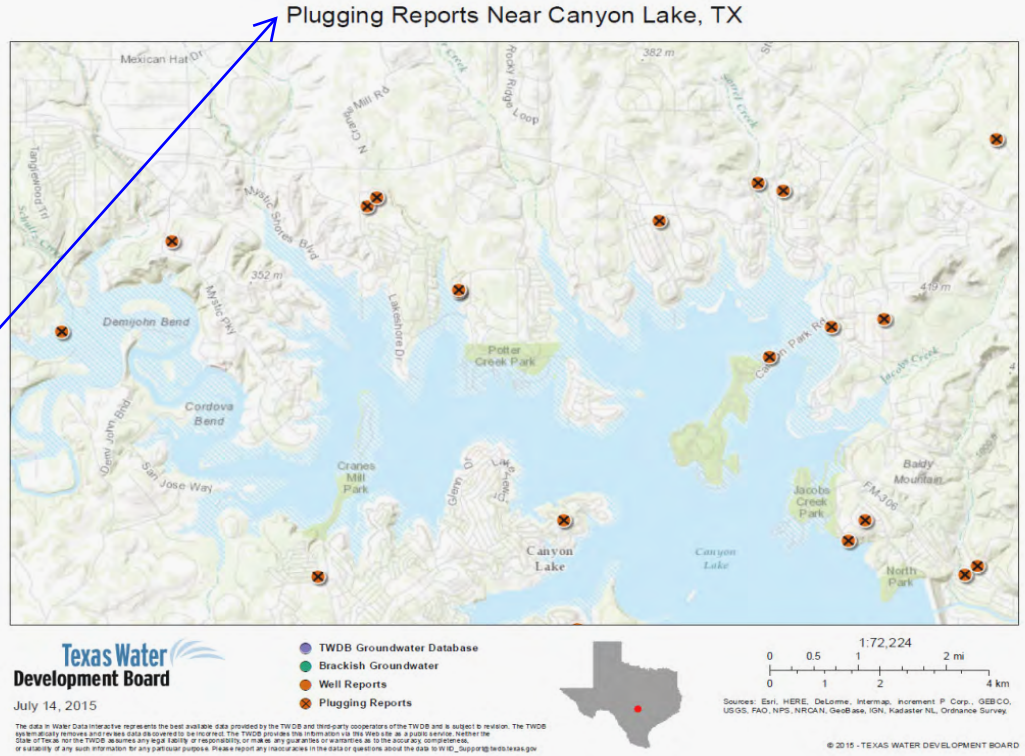
7.2 Identify Tool

7.3 Legend Tool

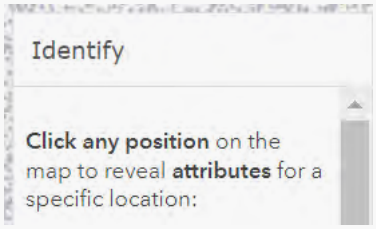
Print Tool

Center the map where you want the center of the print, enter a title, choose a page setup, choose a file format and click export.
Layout uses a template, and **Map only** is a screenshot.



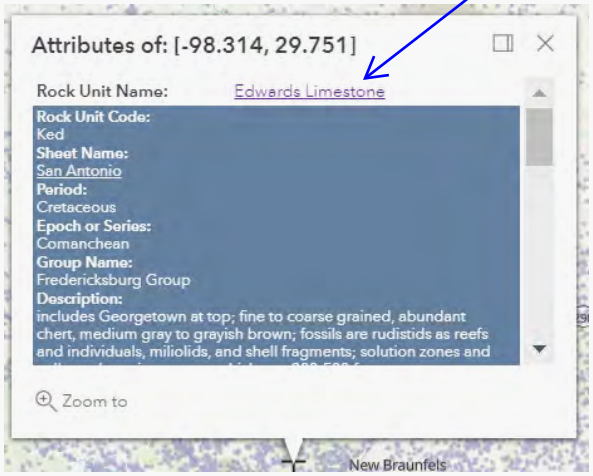


Identify Tool



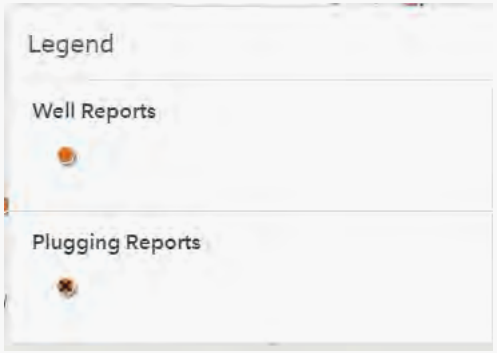
Geology, Major and Minor Aquifers, BRACS Study Areas, Regional Water Planning Areas, Groundwater Conservation Districts, River Basins, Counties, 7.5'USGS Survey Grid, 2.5' State Grid, Latitude/Longitude, Land Elevation

Additional information may exist for some attributes and would follow with a blue background as shown.



Legend Tool

View a legend for the map

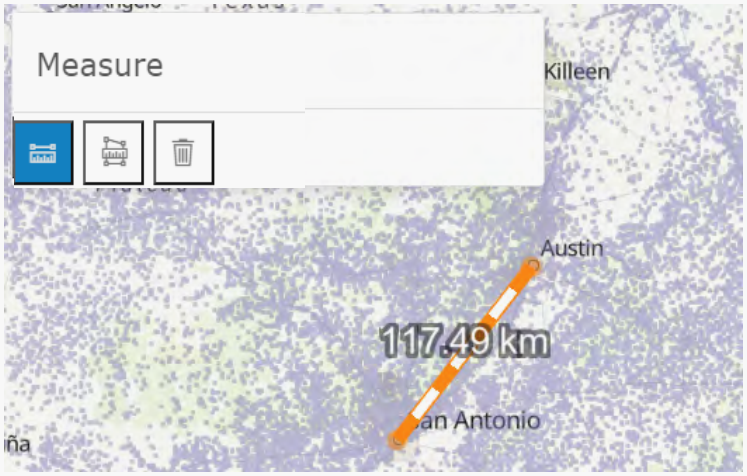


7.4 Measurement Tool

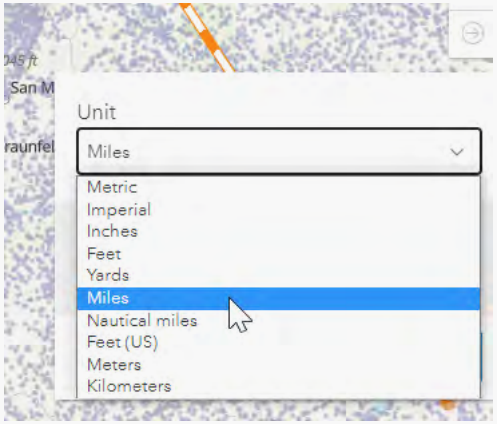
Measurement Tool

Distance Measurement Tool:

Click points on the map to build line segments to measure, and double-click to Complete the measurement.

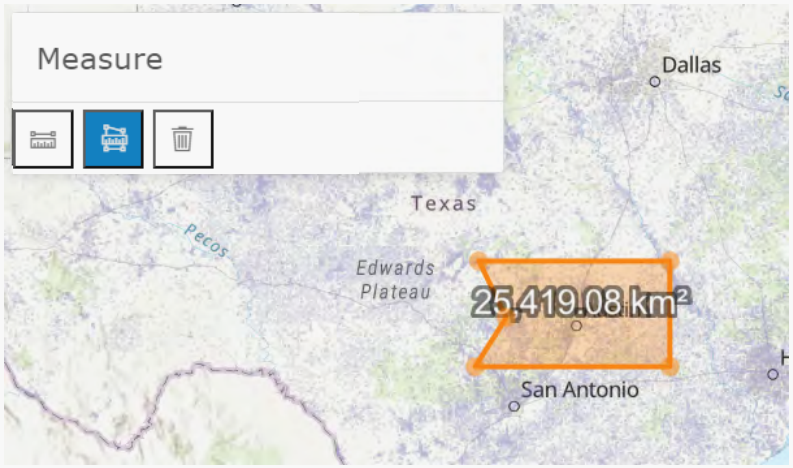


By default, the measuring units are in kilometers.
Once you begin to measure you can choose to change the units.

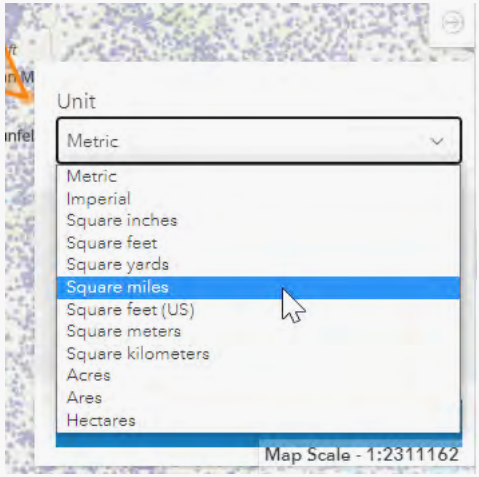


Area Measurement Tool:

Click points on the map to begin building the polygon you want to measure, then double-click to close the polygon.



By default the measuring units are in kilometers.
Once you begin to measure you can choose to change the units.

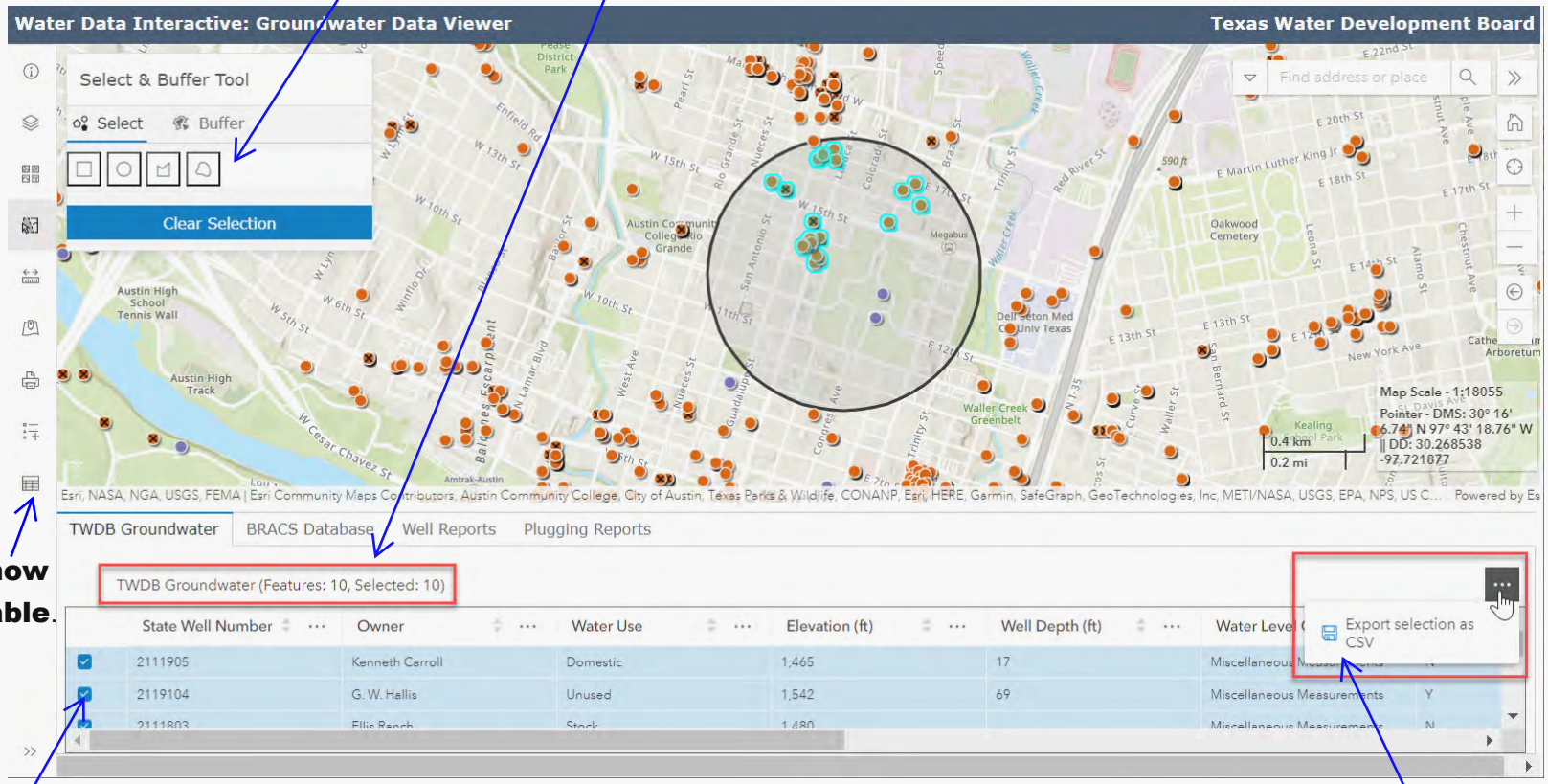


7.5 Select & Buffer Tool

Select by:
Rectangle, circle, polygon, and freehand polygon

Select:
Choose a select by method, view selected records in the table, and save results to a CSV file.

Selections are cumulative. Each selection adds sites to your selection set. Click “Clear Selection” to remove the selection set.



Show Table.

Zoom to record:
Click the check box to select and zoom.

Export Selection:

- Use the grid export to export selection as CSV.
- Export applies to the current selected tab only.
- Export only applies to selected records (checked)

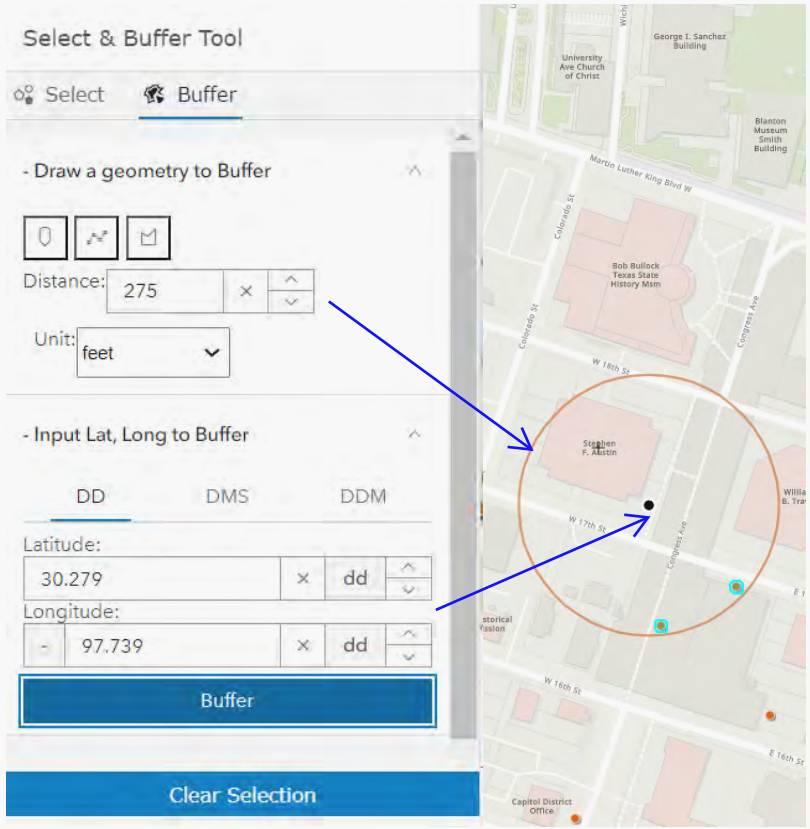
7.5 Select & Buffer Tool

Buffer

Buffer by Geometry:

Choose point, line segment, or freehand polygon to select sites.

Selections are cumulative. Each selection adds sites to your selection set. Click “Clear Selection” to remove the selection set.



Buffer by Lat, Long:

Choose Decimal Degrees (DD), Degrees Minutes & Seconds (DMS), or Degrees Decimal Minutes (DDM), then enter latitude and longitude and click Buffer to select sites.

- Lat/Long input uses units and distance from geometry selection.
- Selections are cumulative.
- Click “Clear Selection” to remove the selection set.