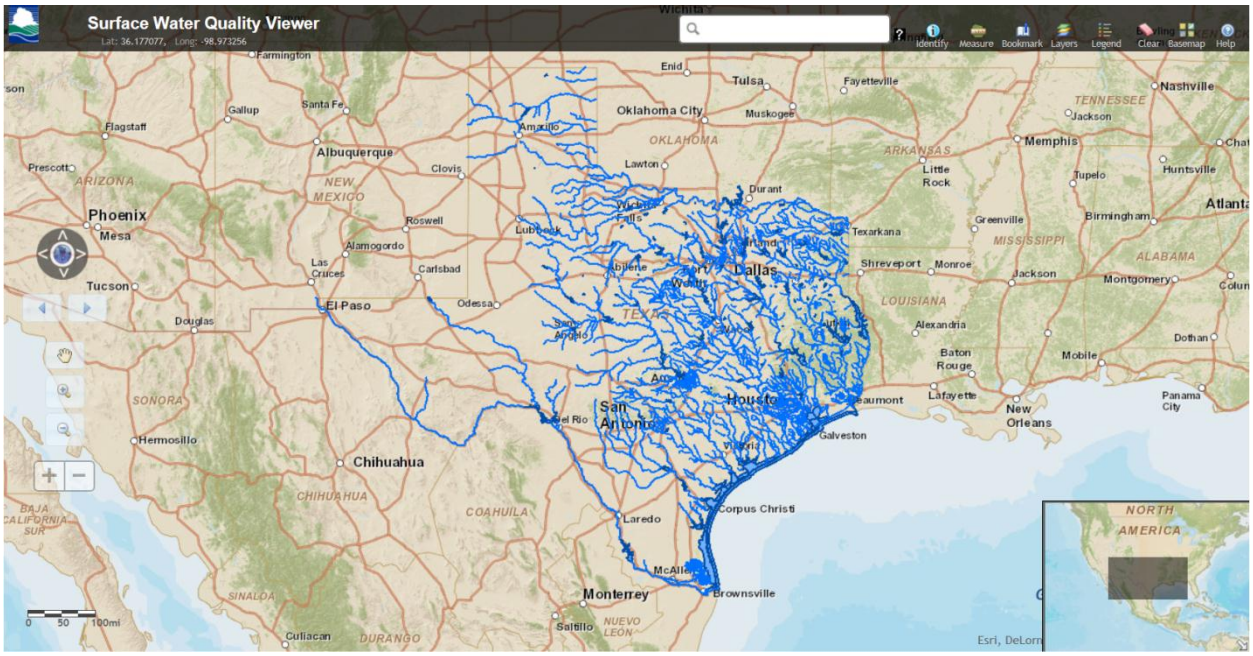
Surface Water Quality (Segments) Viewer – User Guide



The **Surface Water Quality (Segments) Viewer** allows users to find information on the quality of any body of surface water in Texas that TCEQ monitors.

You can select a water body geographically (from an interactive map) or by its name or identification number.

Software requirement:

The Surface Water Quality (Segments) Viewer has been tested and works fine in the following Web browsers:

- Microsoft Internet Explorer: Version 9 and above
- Mozilla Firefox: Version 21.0 and above
- Google Chrome: Version 30 and above

Please update your Web browsers to the newer version if some tools in the viewer do not work well for you.

The OAS/Information Resources Division (IRD)/Enterprise Support Section (ESS)/GIS Team created and maintains this application.

Date Updated: February 3, 2014

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Navigation Tools

The viewer will open to a full view of the state of Texas with Surface Water Quality Monitoring (SWQM) stations, Segments – Streams 2012, and Segments – Reservoirs 2012 displayed.

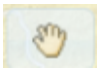
Basic navigation tools are provided on the left side of the screen.

Pan (Direction) Tool: Click on the arrows to move the map display in the desired direction.

Click on the **Full Extent** (globe) symbol to return to the full view of the state of Texas.

Previous Tool: Click on this button to go back to the previous map view.

Next Tool: Click on this button to return to the view you created before you click on the "Previous" tool.



Pan Tool: This tool allows you to pan over the map by dragging the display in any direction with the mouse. To use this tool, move the cursor to any desired location, hold down the left mouse button, and drag the display in any direction. (When you open the map viewer, the cursor defaults to this function.)

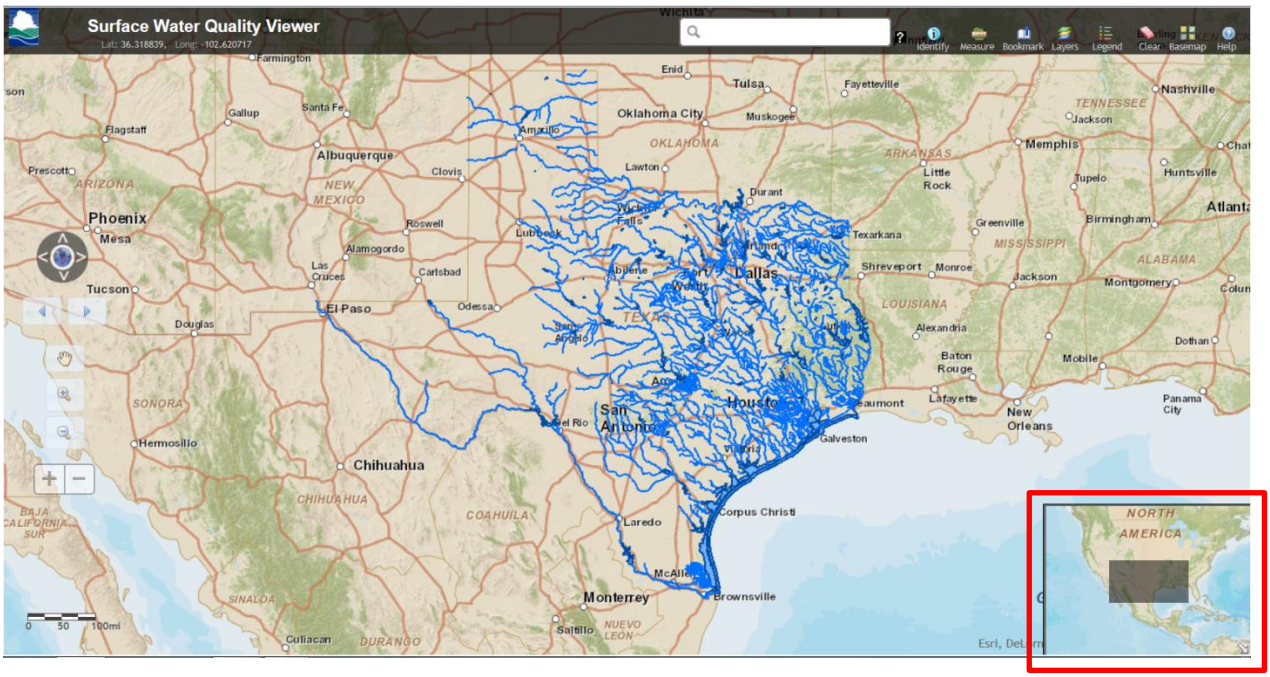
Zoom In (Select) Tool: This tool allows you to zoom in on the map to a more detailed view of a selected area. The area displayed is based on the outer boundary of the box that you draw.

Zoom Out (Select) Tool: This tool allows you to zoom out from the area displayed on the map. The area displayed is based on the extent of the box you draw.

Zoom (Fixed) Tools: Clicking on the plus (**+**) sign causes the entire view to zoom in for a fixed distance. Clicking on the minus (**-**) sign causes the entire view to zoom out for a fixed distance. Unlike the **Zoom In/Out (Select) Tools**, you cannot specify the area you wish to zoom in and out of.

Map Extent Window

The Map Extent window is located in the lower right hand corner of the display. It displays a larger geographic area than the viewer display. The grey rectangle in the window corresponds to the area represented in the viewer display.



To change the area shown in the viewer display, click on the grey rectangle and drag it to the area of interest.

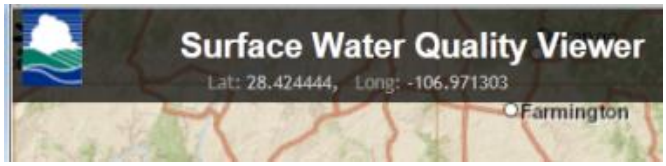
You can make the Map Extent Window appear or disappear by toggling on the arrow in the lower right hand corner of the window.

Toolbar

The toolbar at the top of the display offers multiple tools.

Latitude-Longitude Coordinates

On the left side of the tool bar, the geographic coordinates for the location of the cursor are continuously displayed in decimal degrees.

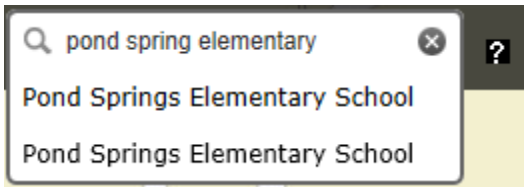


Search Tool

In the center of the tool bar, the Search tool allows you to zoom to a specific location.

Clicking on the question mark (**?**) to the right of the search tool window opens the **How to use this Search tool?** Window; the contents are displayed below:

> **How to use this Search tool?**
>
> You can search a location by typing in one of following criteria in the search box (not case-sensitive).
> The dropdown list will be auto-completed when you type. See examples in blue:
>
> - Search by **County Name:** Travis county
> - Search by **City Name:** Austin
> - Search by **Address:** 1111 6th St W, Austin, TX, 78703
> - Search by **Intersection:** McNeil Dr **&** Parmer ln
> - Search by **Latitude/longitude:** -97.2, 30.4
> - Search by **POI (Point Of Interest: school, park, mall, hospital, etc.):** pond springs elementary



After you enter the search criteria, click on the magnifying glass in the left side of the window to execute the search.

When complete, click on the **X** in the right side of the window to clear the search.

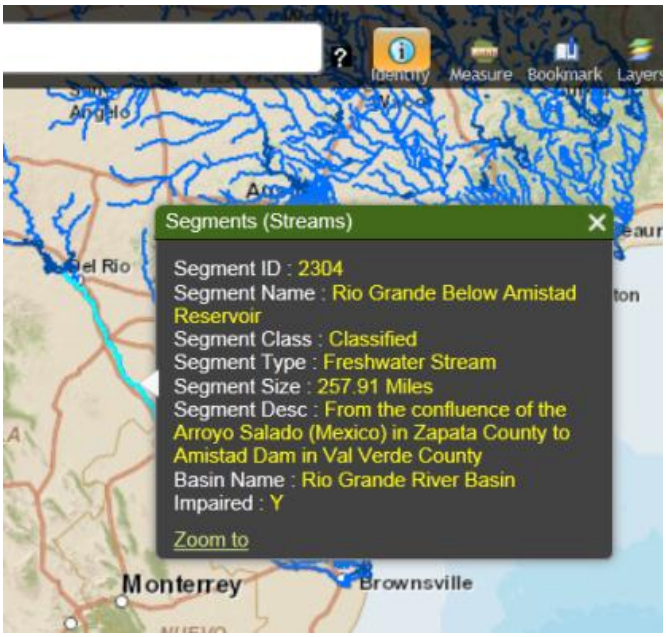
Functional Tools

Multiple functional tools are provided on the right side of the tool bar.

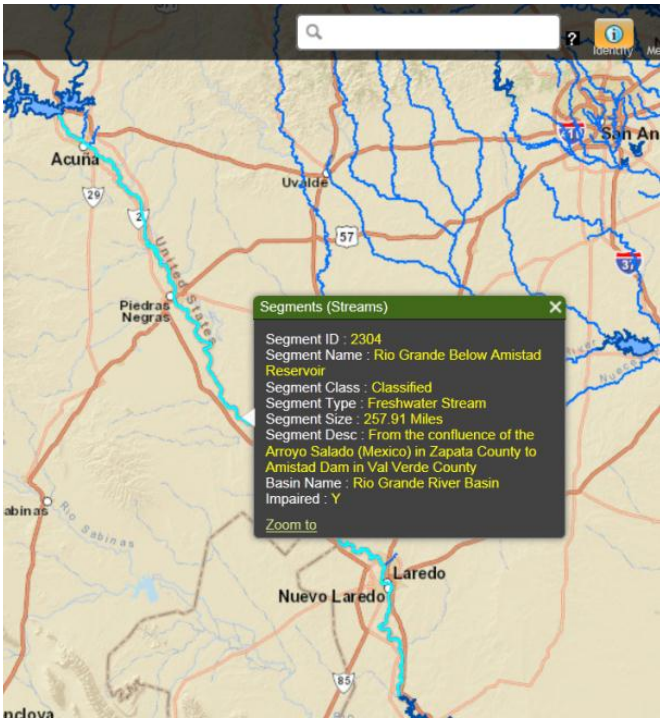
Identify

This tool allows you to identify visible features on the map. Click on the tool, and then click on the feature you wish to identify. The feature you select will be outlined in light blue, and a pop-up window will appear describing the feature.

In the example to the right, the selected feature is the Rio Grande Below Amistad Reservoir Stream Segment (Segment ID: 2304). The pop-up window displays additional information about the stream segment.

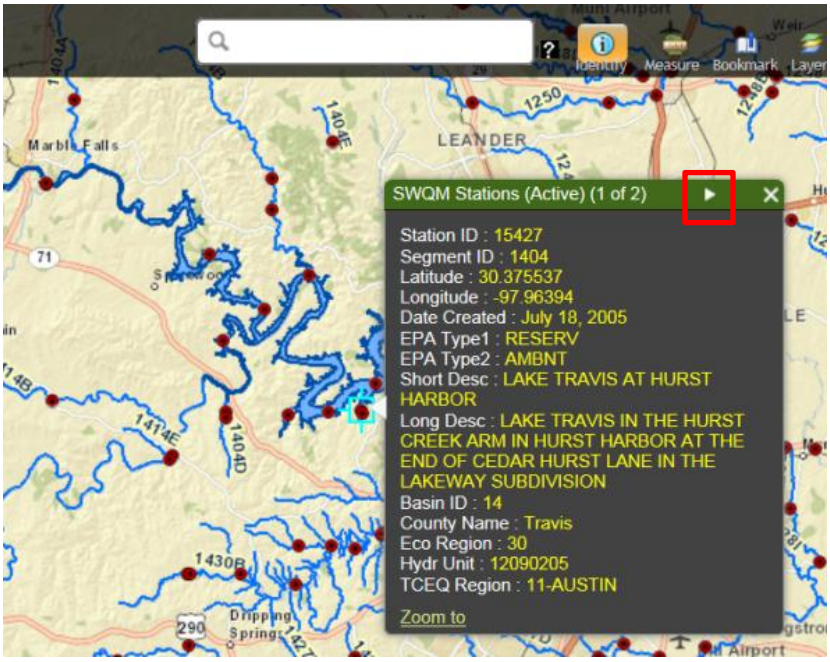


If you click on the Zoom to link, the viewer will zoom to that segment.

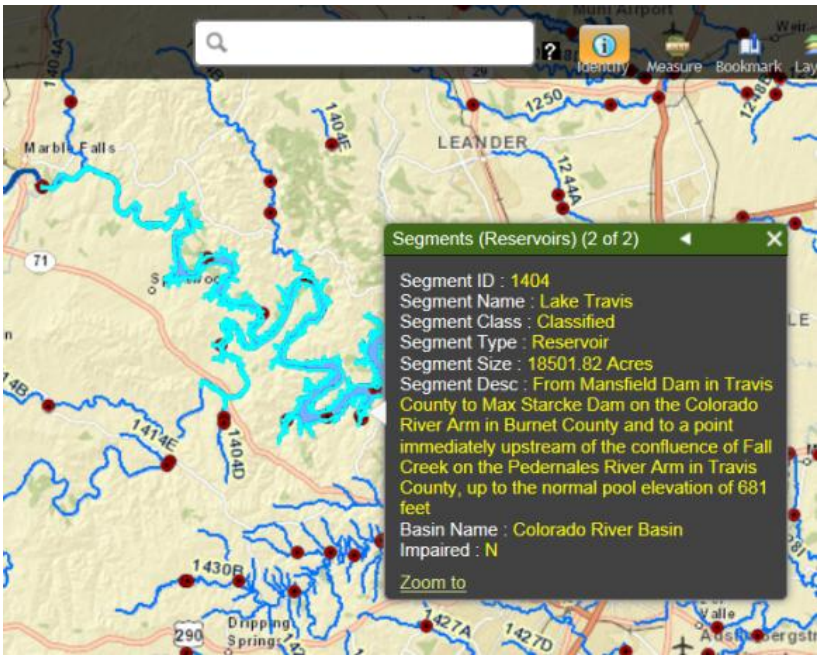


If you click on an area where multiple layers are present (e.g. SWQM Stations and Segments), the viewer will highlight the SWQM Stations layer first.

To display the information for underlying layers, click on the arrow in the pop-up window (highlighted in red in the image to the right).



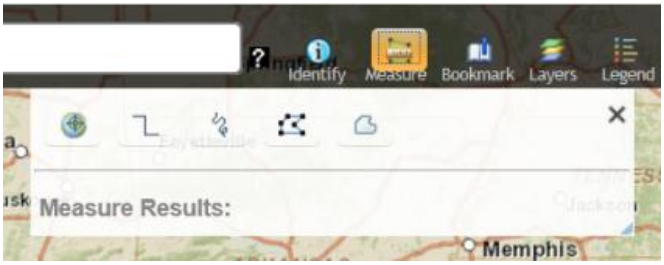
The viewer will display underlying layers.



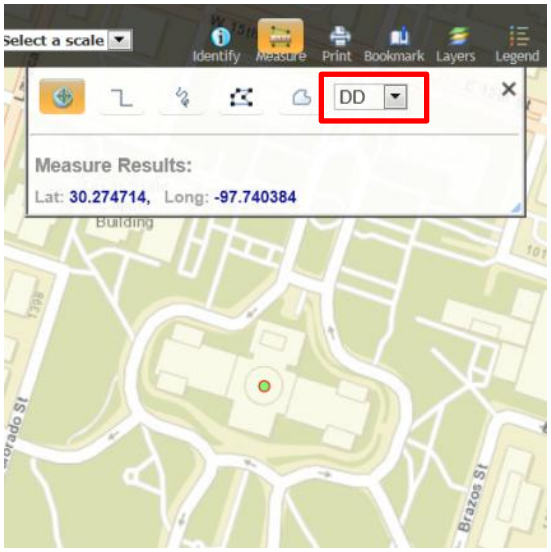
Measure

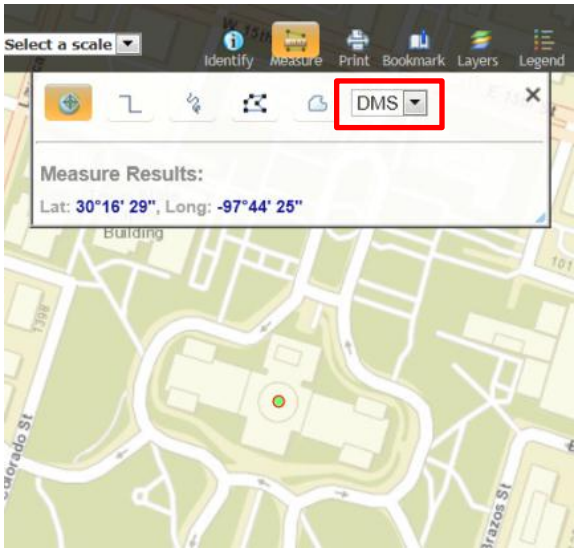
This tool allows you to obtain latitude-longitude coordinates of point locations or measure distances in the display screen.

Clicking the measure tool displays a window with multiple options for measurement:



Location. This tool allows you to obtain latitude-longitude coordinates for point locations. You may choose to display latitude-longitude coordinates in decimal degrees (DD) or as degrees-minutes-seconds (DMS).

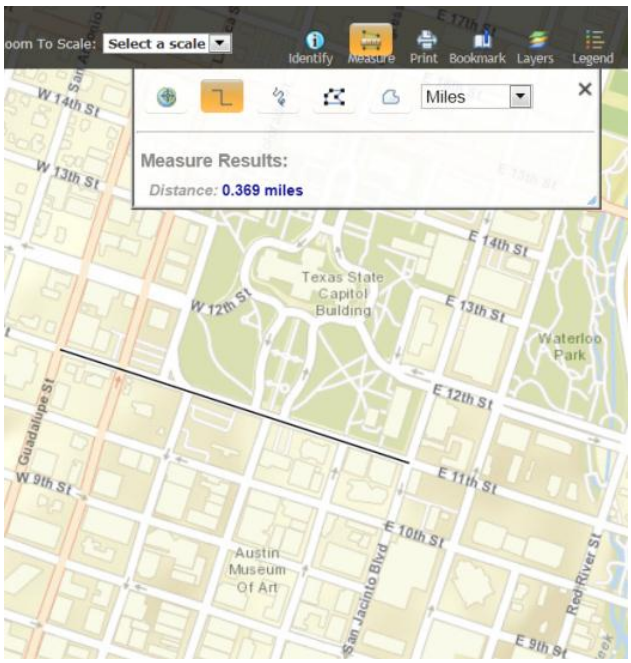




Measure Distances. Use this tool to measure linear distances between point locations.

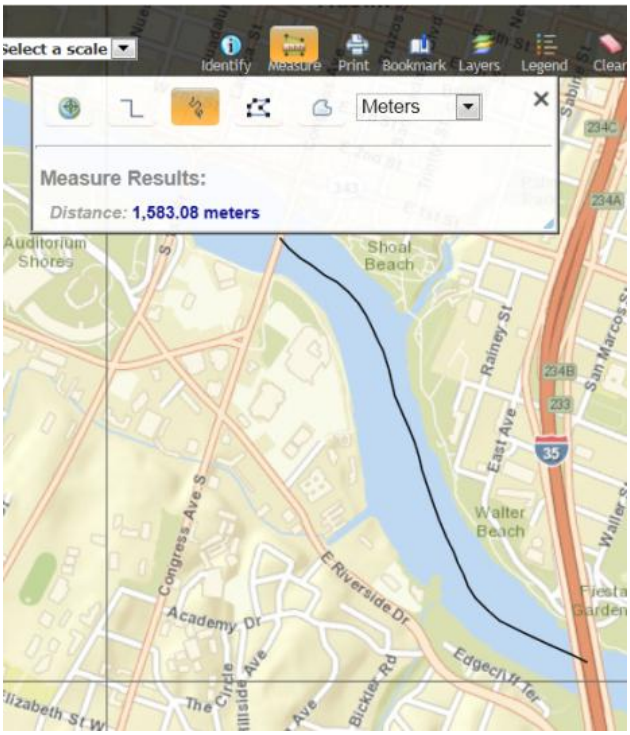
In the example to the right, the distance between Guadalupe Street and San Jacinto Boulevard on 11th Street in Austin is 0.369 miles. (You can also measure distances in yards, feet, kilometers, and meters.)

You can measure the distances of multiple connected straight lines. Make a single click at individual points, and do a double click when you're done.



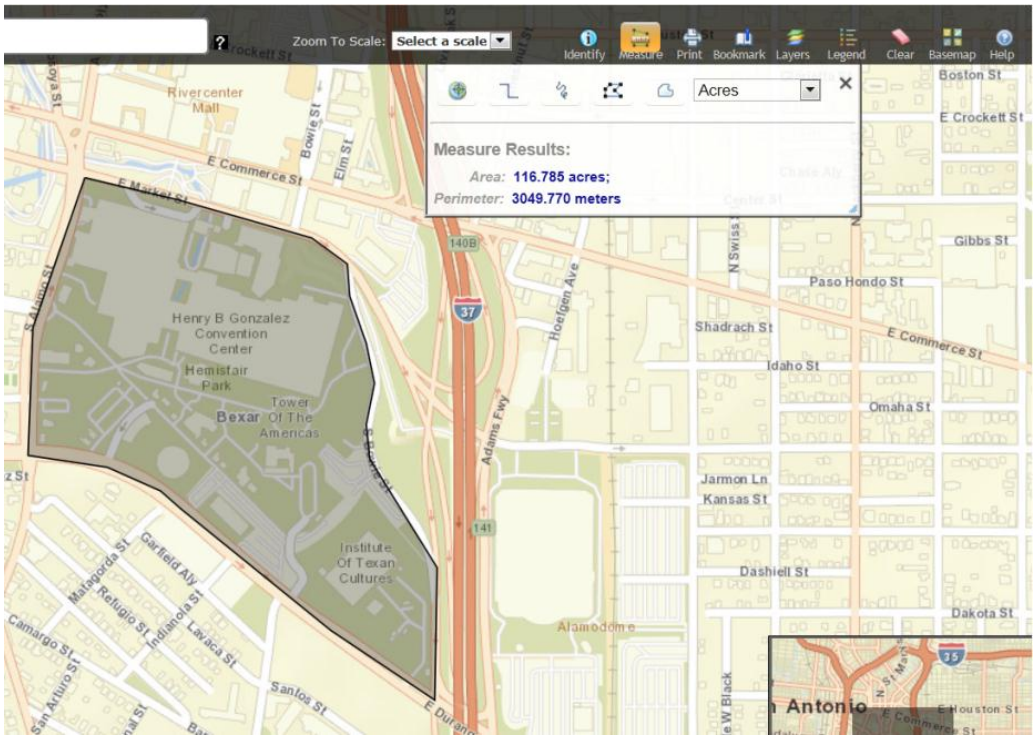
Freehand. Use this tool to measure distances between two points that do not fall on a straight line.

In the example to the right, the distance between South Congress Avenue and Interstate Highway 35 on Lady Bird Lake in Austin is 1,583.08 meters.



Measure an Area. Use this tool to measure the total area of a polygon (in acres, or square miles, yards, feet, kilometers, or meters).

In the example below, Hemisfair Park in San Antonio has a total area of 116.785 acres and a perimeter of 3049.770 meters.



- **Measure an Area (Freehand).** Use this tool to measure the total area of a freehand-drawn polygon (in acres, or square miles, yards, feet, kilometers, or meters).

  Note: This tool can only be used to obtain measurements for simple polygons; if you attempt to draw a polygon with too many points, it will not provide a measurement of its area.

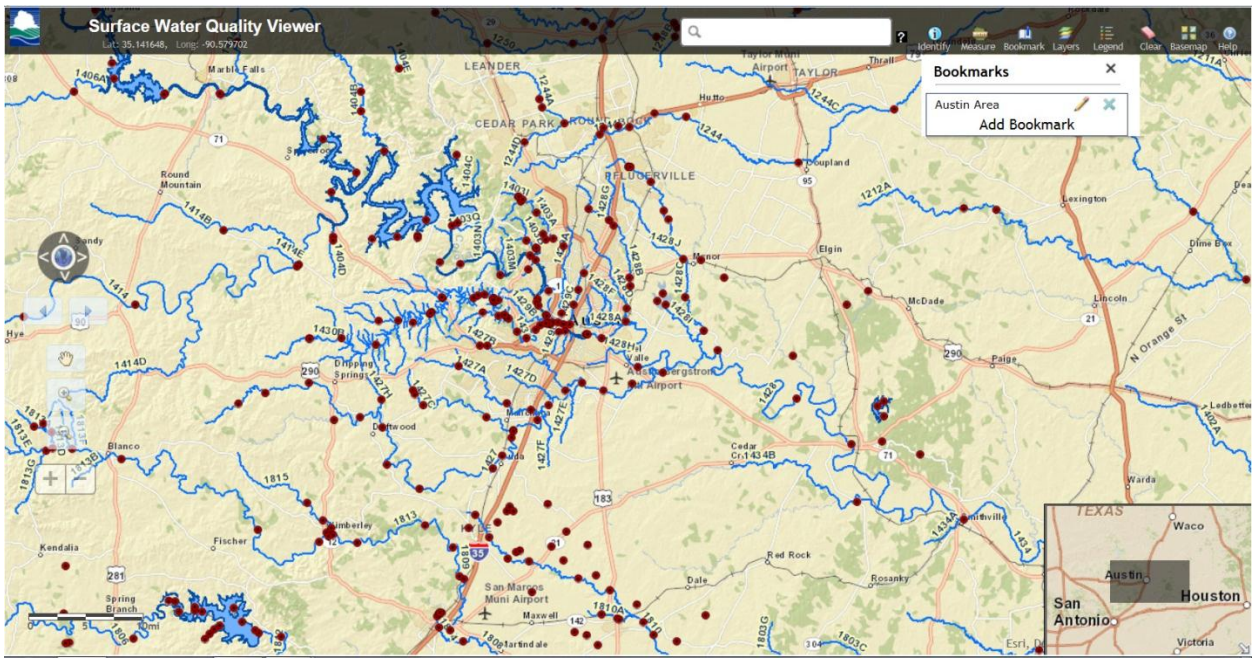
Bookmark

This tool allows you to create bookmarks for specific areas. A bookmark for the Austin area is already in place.

To create a bookmark, zoom to the area of interest and click on the **Add Bookmark** command. Enter the name of the area and hit Enter.

To edit a bookmark, click on the pencil icon and make the desired changes.

To remove a bookmark, click on the blue X.



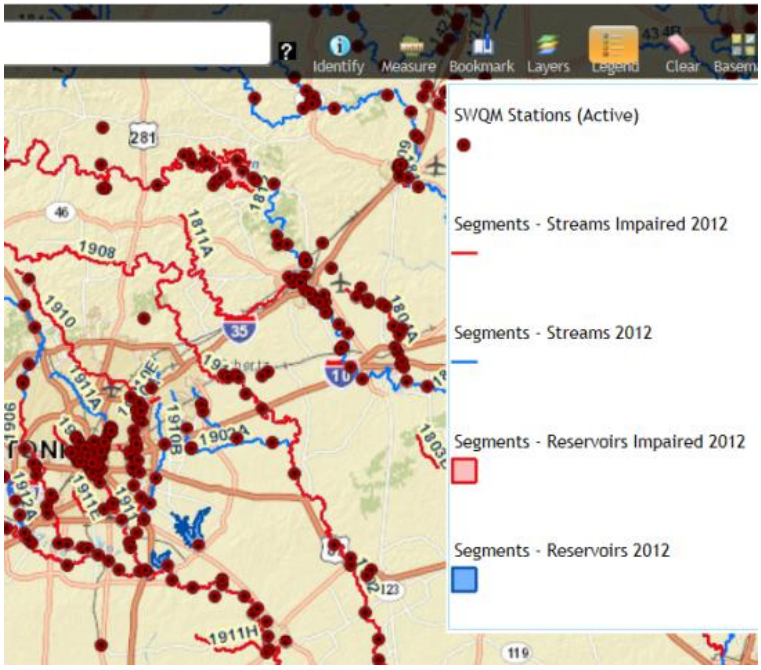
Layers

This tool allows you to choose the layers that the viewer will display. Clicking on the box to the left of the layer name will toggle the layer on or off.

Legend

This tool displays the legend for the following layers:

- SWQM Stations
- Segments – Streams Impaired 2012
- Segments – Streams 2012
- Segments – Reservoirs Impaired 2012
- Segments – Reservoirs 2012



Clear

Most commonly used with the **Measure** tool, clicking on this tool removes all lines and polygons you have drawn on the viewer screen.

Basemap

Clicking on this tool brings up a window that allows you to choose from six different basemap layers:

- Streets
- Imagery
- USGS Topographic Maps
- Ocean
- Terrain
- National Geographic
- Light Gray Base
- OpenStreetMap

Help

Clicking on this link brings up a PDF version of this User Guide.