

# Edwards Aquifer Viewer Help Page



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## What Is the Edwards Aquifer Viewer?

This Viewer has been designed to provide interactive online access to the Edwards Aquifer Regulatory Boundaries as defined in 30 TAC Chapter 213 (1998). Several tools have been provided enabling you to zoom, pan, query, print, and obtain geographic coordinates. This help page provides a brief explanation of these tools. Several reference layers such as counties and roads have been provided to guide you to your area of interest. As you zoom in closer, more layers will appear. Once you have zoomed in past the scale of 1:75,000, the reference layers will disappear and the **7.5-Minute USGS Topographic Maps** will be visible along with the Edwards Aquifer Boundary lines.


## How do I Find the Name of a Particular Map Feature?

To find the name and other information associated with a particular map feature, you must first select the circular  radio button next the layer for which you are interested. Once the layer is active, select the  **Identify Tool**, then click the on the map feature. The name and other associated information will appear in a table at the bottom of the viewer.



## What Do Visible and Active Mean?

In the map layers list there are  check boxes and rounded  radio buttons next to the name of each map layer. The checks in the boxes of the “Visible” column indicate which map layers are currently visible in the map frame. To turn a map a map layer off, simple uncheck it's box and hit the **Refresh** button. The rounded Radio buttons indicate which layer is currently active. When using the Identify tool (see above), only information about the Active layer will be displayed.

## Obtaining a Latitude and Longitude

At any scale, you can obtain the latitude and longitude in both decimal degrees and degree-minutes-seconds by selecting on the  button and then clicking anywhere on the map. A separate window will display the coordinates (*unfortunately in Netscape, this window will open to the full extent of the page*). Once you have recorded the latitude and longitude, close the page. *Note: Although the USGS Topo maps are referenced to the North American Datum of 1927 (NAD27), these coordinates are being converted to NAD83 on-the-fly.*

## Find By Address

You may also find a specific location by entering an address. To do this, simply click on the **Locate Address**  button. In the window at the bottom of the screen, enter a valid address and zipcode (in the zone field), then click the **Locate** button. Alternatively, you may enter a cross street instead of a zipcode (hint: you may need to scoll to the bottom of the window to see this third box). Once you click the **Locate** button, the viewer will zoom in and place a point at that location over the topo map. To erase this point and it's label, simply click on the  Clear Selection tool.

## Toggle between Layer List and Legend

Use this tool to see the symbology for each map layer. Each time the tool is clicked, list on the right side of the screen toggles between the Visible/Active buttons and the symbols depicting each map layer.

## Navigation Tools: Moving Around Within the Map

### **Zoom In Tool**

This tool allows you to zoom in. Each single-click increases the map scale by 50%, centering the map display on the point clicked. To zoom to a selected area, hold the left mouse button down and draw a rectangle around the area you're interested in.

### **Zoom Out Tool**

This tool allows you to zoom out. Each single-click decreases the map scale by 50%, centering the map display on the point clicked.

### **Zoom to Full Extent**

This tool allows you to zoom to the full extent of the Edwards Aquifer.

### **Zoom to Active Layer**

This tool allows you to zoom to the extent of the active layer.

### **Back to Last Extent**

This tool allows you to zoom to the previous extent.

## **Measure Tool**

This tool allows you to measure distances on the map. After selecting the tool, click on the point from which you want to begin measuring (the starting point). Wait for a second until you see a red dot appear, then click on the next point. The length of this segment will appear in the boxes at the top of the screen. Extend the line by clicking on additional points. As you proceed, the length of the most recent segment will always appear in the second box named **Segment**. The total length of your line since the first point will appear in the first box named **Total**. If you want to erase and start over, just hit the **Clear Selection** button next to the printer button. *Note: The units of measurement may be set by the Set Units tool.*

## **Set Units Tool**

This tool allows you to set the display units. Display units affect both the Measure Tool and the Scale Bar. To set the units, select either meters, feet, miles, or kilometers from the drop-down list, then click the **Set Units** button.

## **Clear Selection Tool**

This tool allows you to clear any measuring lines currently on the map.

## **Print Tool**

This tool allows you to print the current view. When you select the button, instructions for printing will appear at the bottom of the screen. You will be prompted for a title which will appear at the top of your map. As soon as you hit the **Preview Map** button, a new window will open displaying the map that will be printed. At this point, simply use the print button on your browser to send the map to the printer.

## **Zoom To Scale**

Below the layer list is a drop-down menu allowing you to select a scale. Once you have centered the map over the area of interest, select the desired scale from the list and click on the **Go!** button. The map frame will immediately zoom to the selected scale. The

USGS Topographic Quadrangle Maps have a source scale of 1:24,000. Therefore, before printing your map, it is suggested that you first zoom to 1:24,000.


## **To Exit the Viewer and Return to the Home Page.**




When you are ready to leave the viewer, simply hit the **Exit** button in the lower left. A message will appear asking you to confirm your intent to exit the viewer. Click "Yes" to close the viewer. Once the viewer closes, a new window will appear taking you back to the Edwards Aquifer Viewer Home Page. You may also exit the viewer by clicking on the TCEQ logo. However, instead of taking you to the Edwards Aquifer Viewer Home Page, you will be taken to the External TCEQ Home Page.


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## **Getting Started**

*Not sure where to begin?* Here are a few steps to get you started.

1) The first thing you will want to do is zoom-in to an area of interest. To do this, select the  **Zoom-In Tool**, then either single-click on a location or *click-n-drag* a box over the area in which you are interested. As you zoom in, you will notice that additional map layers such as roads, lakes, and rivers appear on the screen. These are reference layers to help guide you to the appropriate area.

2) Next use the  **Identify Tool** to get the name or other information associated with a particular map feature. For instance, you may want to identify name of a particular road. To do this, you must first select the rounded  radio button next to the roads map layer to make it **Active** (Note: You must be at the proper zoom level to see the roads). Next, click the  **Identify Tool** from the toolbar menu on the left, then click on any road on the map to determine the name. The name and other relative information will appear in a table at the bottom of the viewer. The identify tool can be used on any map layer visible in the map frame, however, you must always first click the radio button of the layer and also verify that the identify tool is selected before clicking on a map feature.

3) Now zoom in closer. Once you have zoomed-in beyond the scale of 1:28,000, most of the reference map layers will vanish and the 7.5' USGS Topographic Maps will appear. Some of the map layers will still be visible on top of the Topo Maps including the Edwards Aquifer Zones and the 7.5' Quadrangle Grid. Make the Edwards Aquifer Layer active by clicking on its  radio button, click on the identify tool, and then click somewhere on the map. The name of that zone will appear at the bottom on the screen. Now make the Quad Index Layer active and




click on the map. You will see the name and USGS Quad number for that particular quad. At this scale, you can also view the local streets. These are off by default, but can be turned on by checking the square  visible box. You can also turn off (uncheck) the USGS Topos and turn on the 2004 Aerial Imagery by checking it's box, then hit **Refresh**.

***Note:** The Edwards Aquifer boundary lines have a width of 30 meters. This width illustrates a potential margin of error. Sites which fall anywhere on this line **should not be considered accurate enough** to make legal decisions regarding their location relative to the Edwards Aquifer boundaries. If your site touches this line, please call the appropriate office below for further verification.*


*San Antonio Regional Office ..... (210)490-3096  
Austin Regional Office ..... (512)339-2929*

**4)** For the next step, locate any point on the map for which you would like to acquire geographic coordinates. Click on the **XY Tool** to the left of the map frame and then click on your point of interest (Internet Explorer will give you crosshairs, but Netscape will not). When you click on the map, a separate window will appear giving you the latitude and longitude of the point in both in Degrees-Minutes-Seconds and Decimal Degrees. Click the X in the upper right-hand corner to dismiss the window.

***Note:** The original datum used for the 7.5" USGS Topo Maps is **NAD27** (North American Datum of 1927). The XY Tool converts these coordinates to **NAD83** on-the-fly. **NAD83** is the datum which should be used for all data collected within the agency.*

**5)** Now let's say you want to measure the distance between a site and one of the Edwards Aquifer boundaries. First zoom-in to the area of interest. Next, click on the  **Set Units Tool**. The "Set Units" page will appear at the bottom of the screen. By default, the units are set to Meters. Click on the drop-down list and select Miles, then click the **Set Units** button in the center. Notice that the scale bar units have now changed to miles. Now click on the  **Measure Tool**, then click on the site you want to measure. Wait for a second to make sure a red dot appears on the screen where you clicked. Place a second point on the nearest Edwards Aquifer boundary-line. The distance will appear in the boxes at the top of the screen. Now place a third point somewhere. Notice that the box named *Total* sums the entire distance along you line from the first point. The second box, named *Segment*, will show you only the length of the most recent segment you added. Once you have recorded the distance, click on the  **Clear Selection Tool** to clear the map of all line segments.

**6)** Finally we are ready to print out our map. While still in your area of interest, click the drop-down list under **Zoom To Scale** and select 1:24,000. This is the scale that should be used for printing the USGS Topo Maps since that is their

source scale. Hit the **Go!** button and the map frame will zoom to the selected scale. Now hit the  **Print Tool**. Instructions for printing will appear at the bottom of the screen. With your mouse, swipe over the text that reads "*Enter map title here*" and type in a new title. Hit the **Preview Map** button. A new window will open displaying the map and its new title. From here, simply hit the browser's print button to send your map to the printer. Close the window to resume your session.

7) To exit the viewer, just click on **Exit** at the bottom left part of the viewer. A box will pop up asking if you are sure you want to leave. Hit **Yes** to exit the viewer and return to the Edwards Aquifer Viewer Home Page.