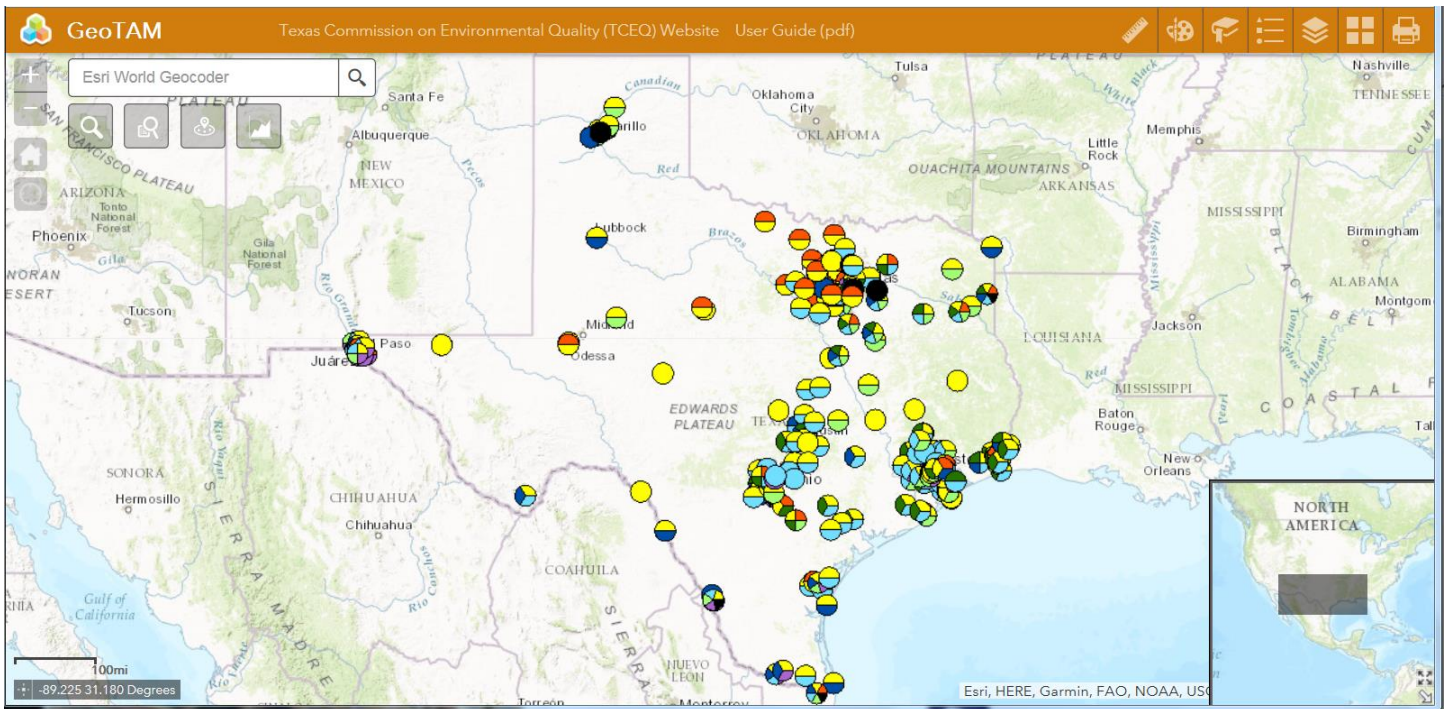


# GeoTAM (Geographic Texas Air Monitoring) User Guide



**Texas Commission on Environmental Quality**



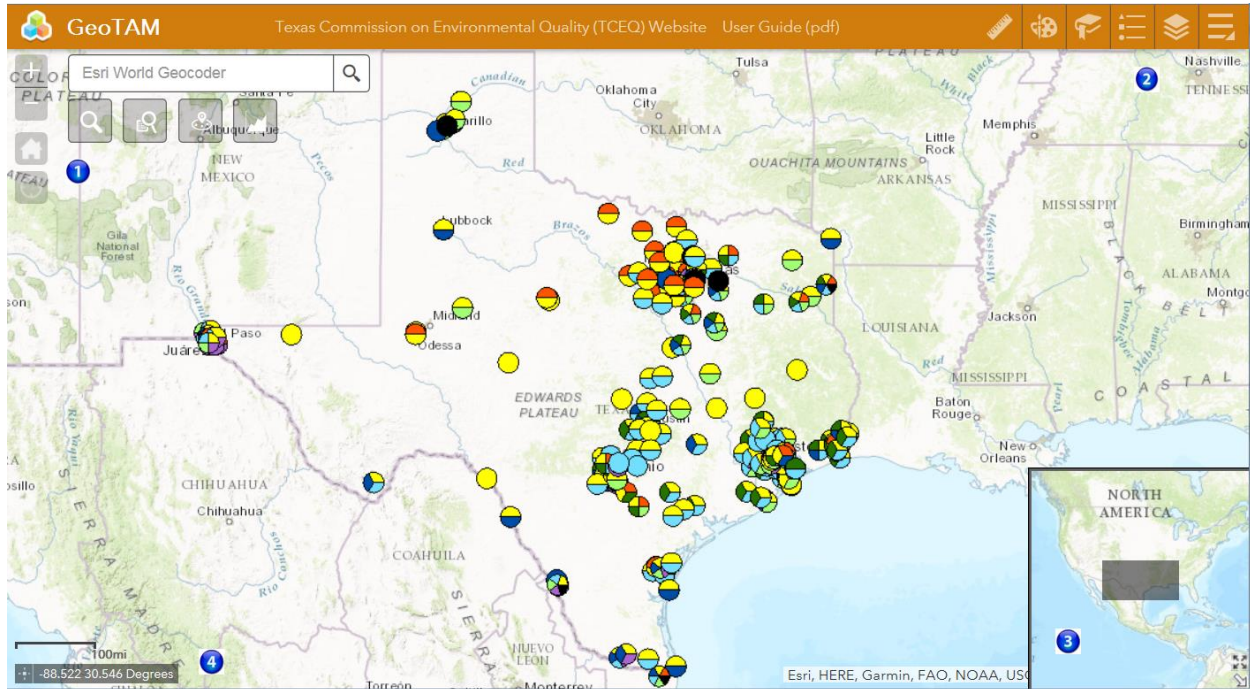
Office of Compliance and Enforcement  
Monitoring Division

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# Application Overview

The image below provides an overview of the tools available in this viewer. The user guide is organized into the following four basic categories.



1 Zoom Tools and Search Bar

3 Inset Map

2 Main Toolbar

4 Coordinate Indicator




# Zoom Tools and Search Bar


1



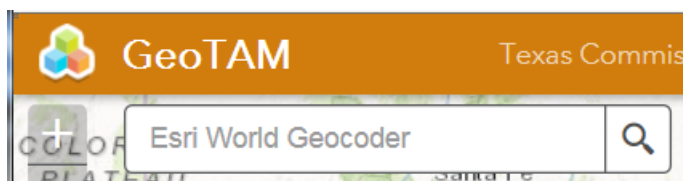
Use these tools to navigate within the viewer, and to search for different types of features.

## Navigation Tools

Icon	Description
	<b>Zoom In</b> – Click this button once or multiple times to <b>zoom in</b> at fixed increments.
	<b>Zoom Out</b> – Click this button once or multiple times to <b>zoom out</b> at fixed increments.
	<b>Home</b> – Click once to return to the default extent

Icon	Description
	<p><b>My Location</b> – Clicking this button will zoom the map display to your general areas, and will place a blue dot on to your current location.</p> <p>Note: This tool will function only if you access the viewer through an https URL. (If the URL is http, simply add an ‘s’ to it, and then reload the GeoTAM viewer.)</p> <p>Also note that in the present version of the viewer, this feature seems to be off by several miles.</p>

## 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.

Examples of possible addresses:

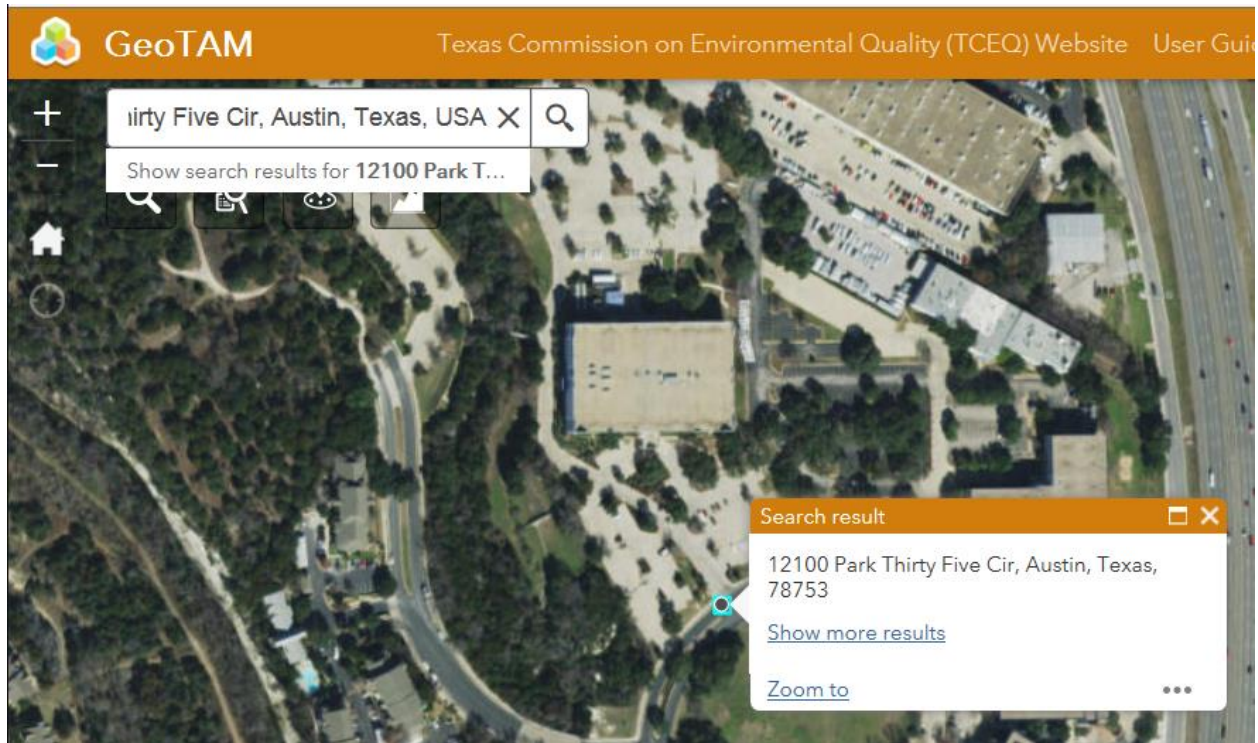
- Addresses: ***100 Congress Ave, Austin, TX***
- Place Names: ***Zilker Park***
- Counties: ***Travis County***
- Cities: ***Austin***
- Coordinates: ***30.274598, -97.740374***
- Intersections: ***Parmer Ln and Lamar Blvd***

If you see your desired location appear, simply click on it and the map will zoom to that location.

You can also complete typing in the location and then either press Enter on the keyboard or click the magnifying glass.

The search results will display:





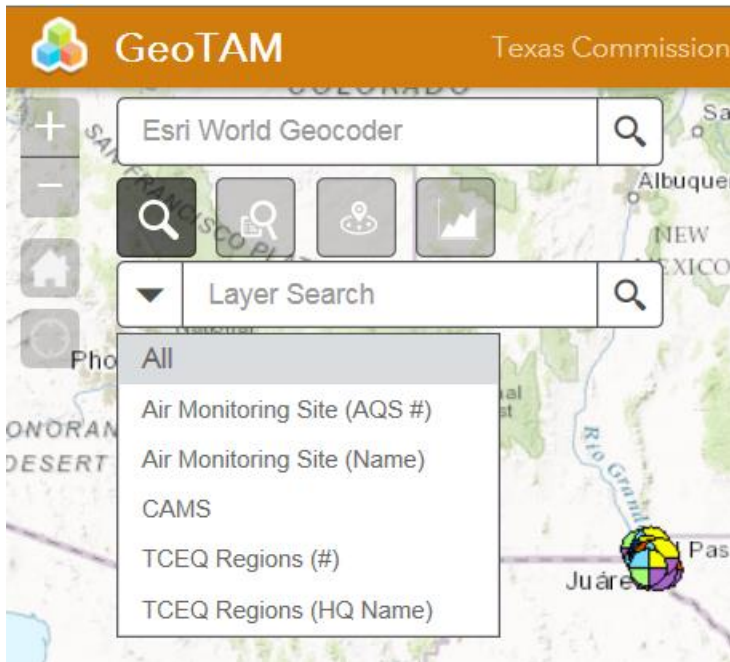
You can click the X on the Search Bar window to clear out the search bar.

## Search Tools

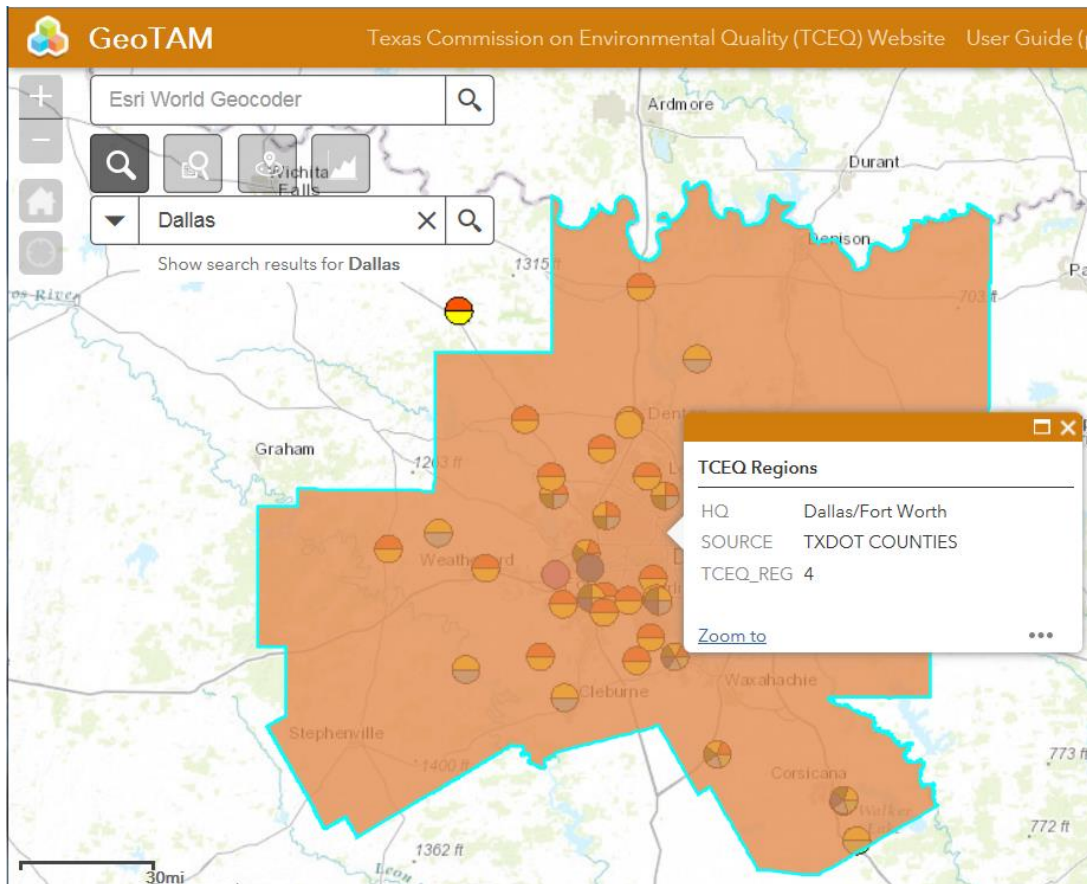


**Layer Search** – This tool allows you to refine your search by specifying the layer within which you wish to conduct your search.

Clicking on this tool displays the Layer Search window. Clicking on the down arrow displays the layers within which you can search.

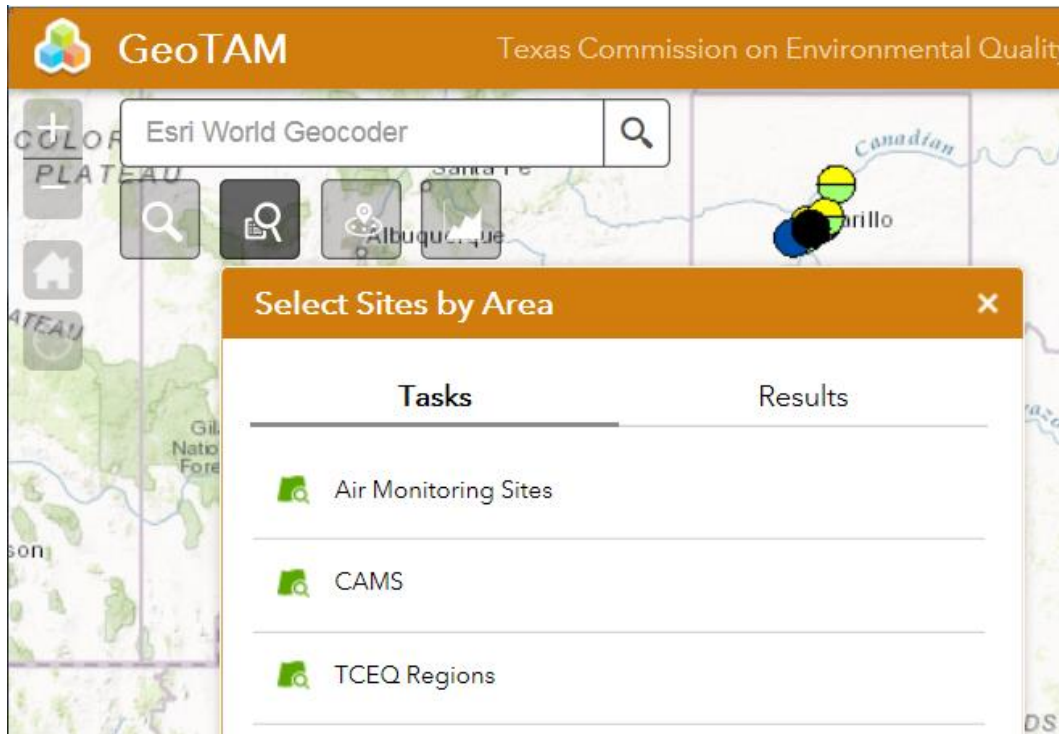


The example below displays the search results when you select **TCEQ Regions (HQ Name)** and enter **Dallas** in the search window.



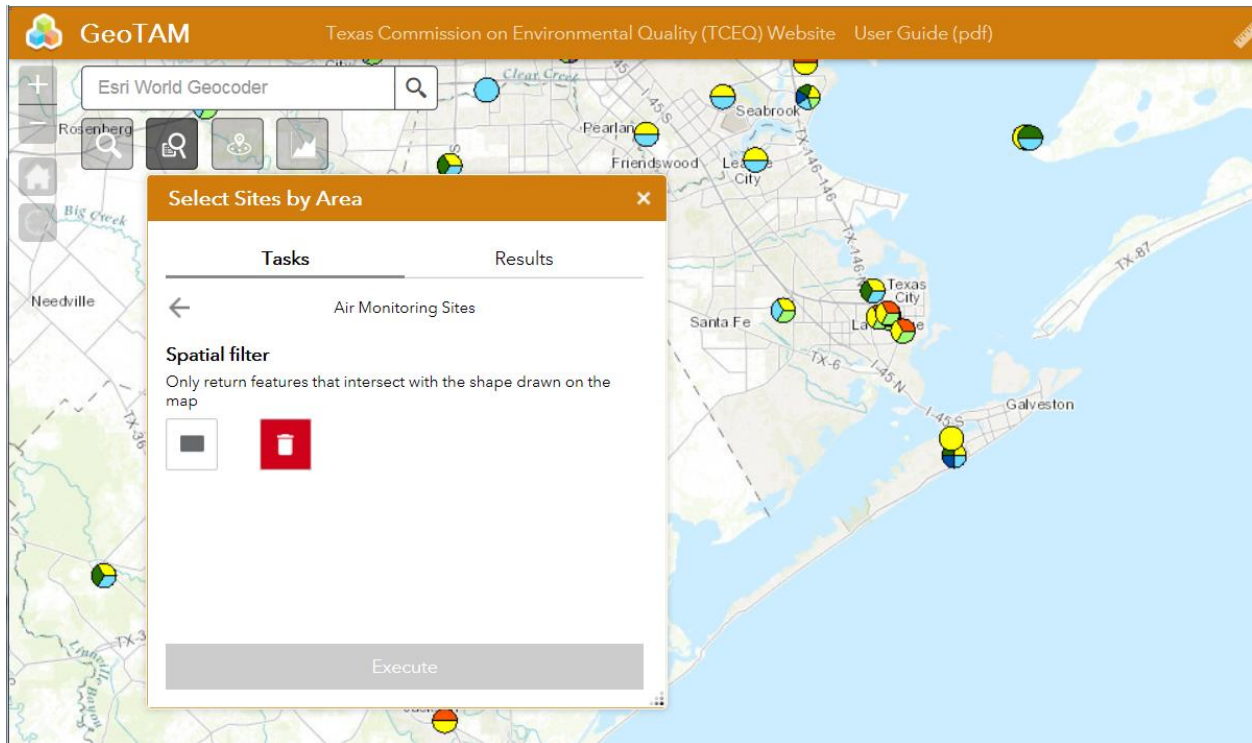


**Select Sites by Area** – This tool allows you to select a specific type of site (Air Monitoring Sites, CAMS – Continuous Ambient Monitoring Stations, or TCEQ Region) within a geographic area that you draw on the viewer using the cursor.

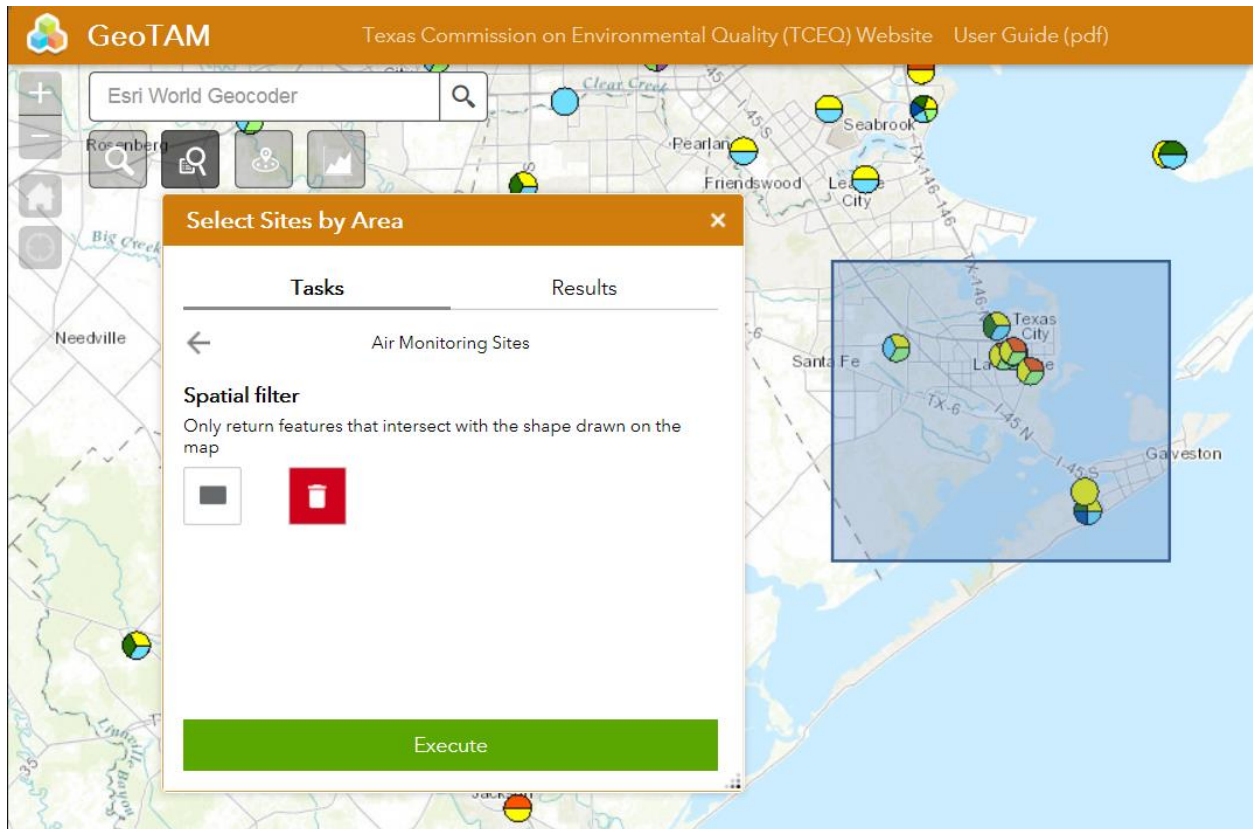


In the example below, after Air Monitoring Sites have been selected, the viewer displays a Spatial Filter window for Air Monitoring Sites.

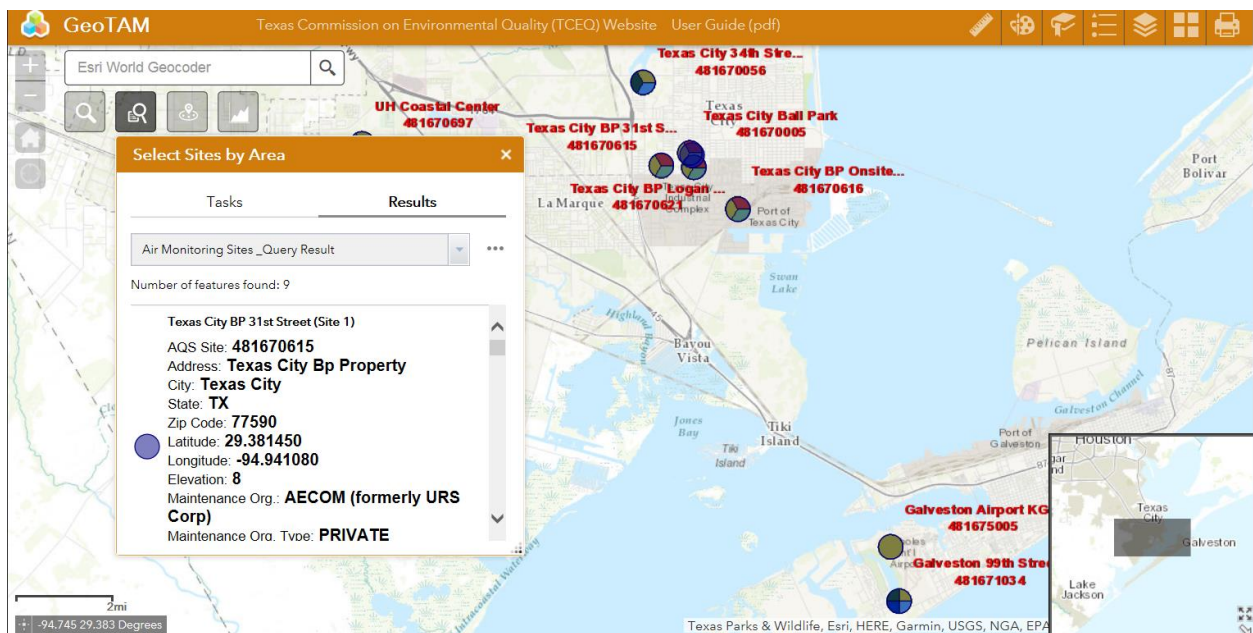




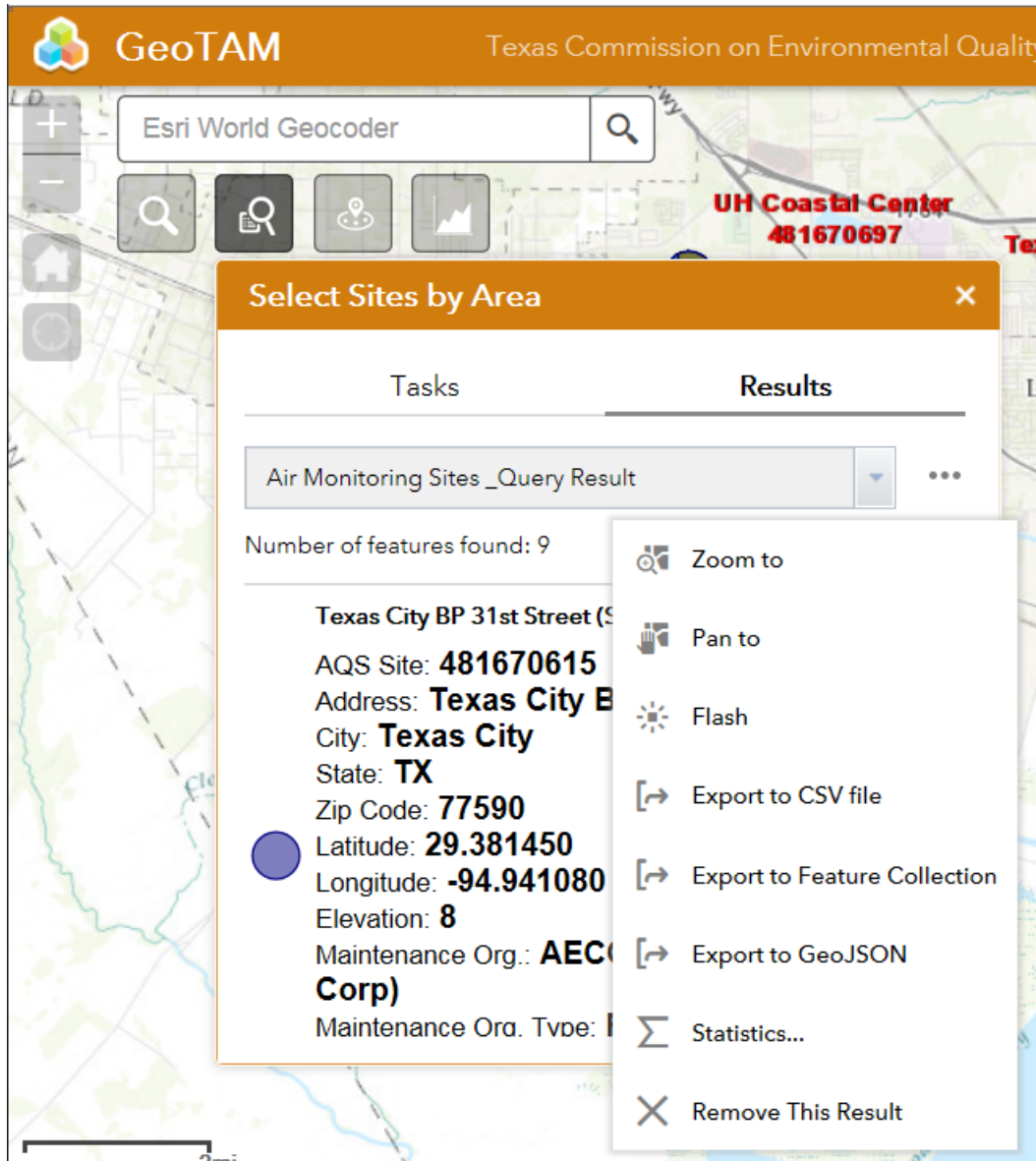
Click on the **Extent** tool, then draw a box around the geographic area of interest.



Click on the **Execute** button. The viewer will zoom to the area you selected and display the results:



Clicking on the three ellipsis points in the upper right corner of the window gives you a list of menu options for viewing, analyzing, or exporting the results:

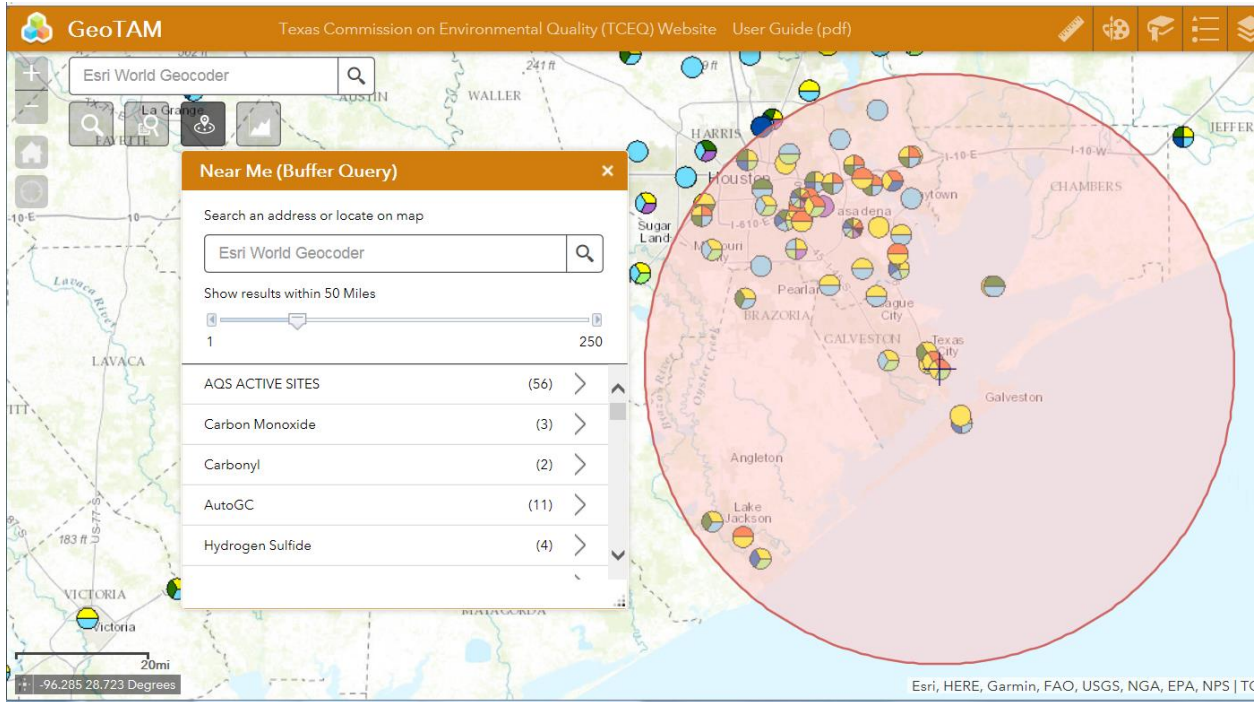


### Near Me (Buffer Query)

This tool allows you to draw a buffer around a location you specify, either by providing an address or clicking on a location in the viewer.

The results list the monitoring sites that fall within that buffer.

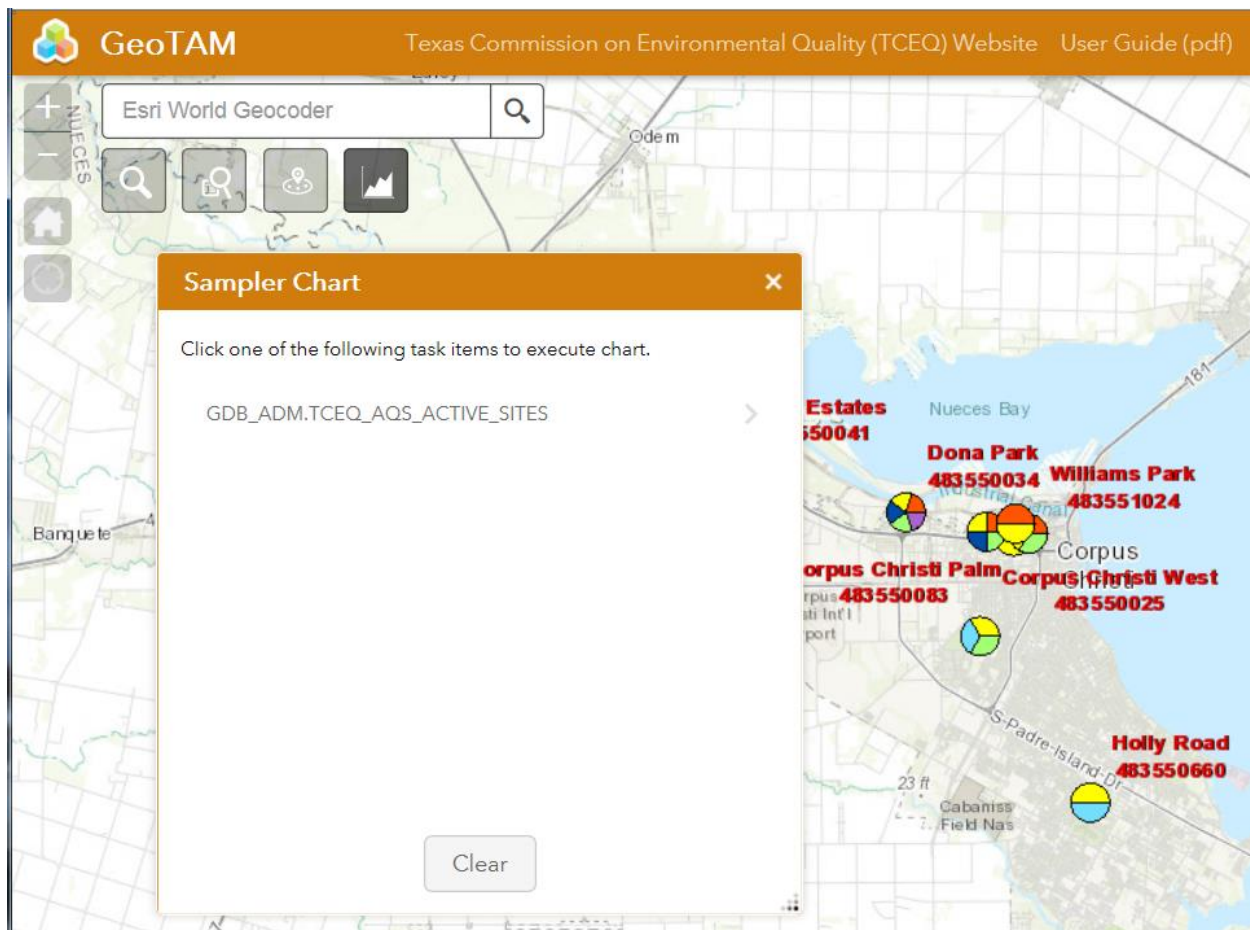
The following example displays a 50-mile buffer around a monitoring site in Galveston.



### Sampler Chart

This tool allows you to obtain sampling data from selected monitoring sites. When you click on the tool, the Sampler Chart displays:

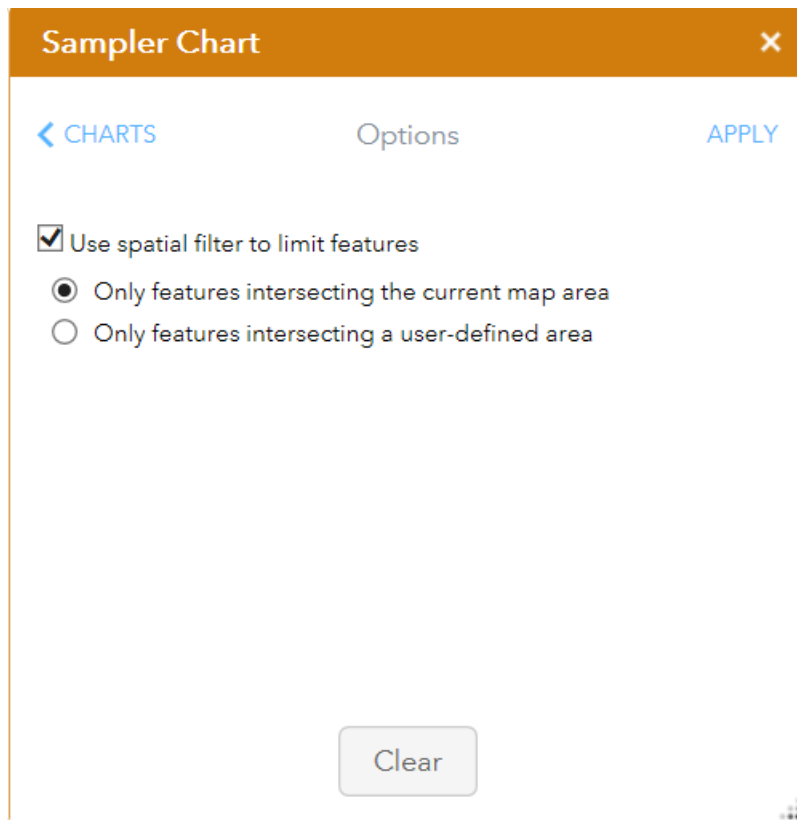




At present, the AQS (Air Quality System) Active Sites geodatabase is the only data source that the viewer can access.

Clicking on the AQS Active Sites link (GDB\_ADM.TCEQ\_AQS\_ACTIVE\_SITES) opens a new window in the Sampler Chart window.

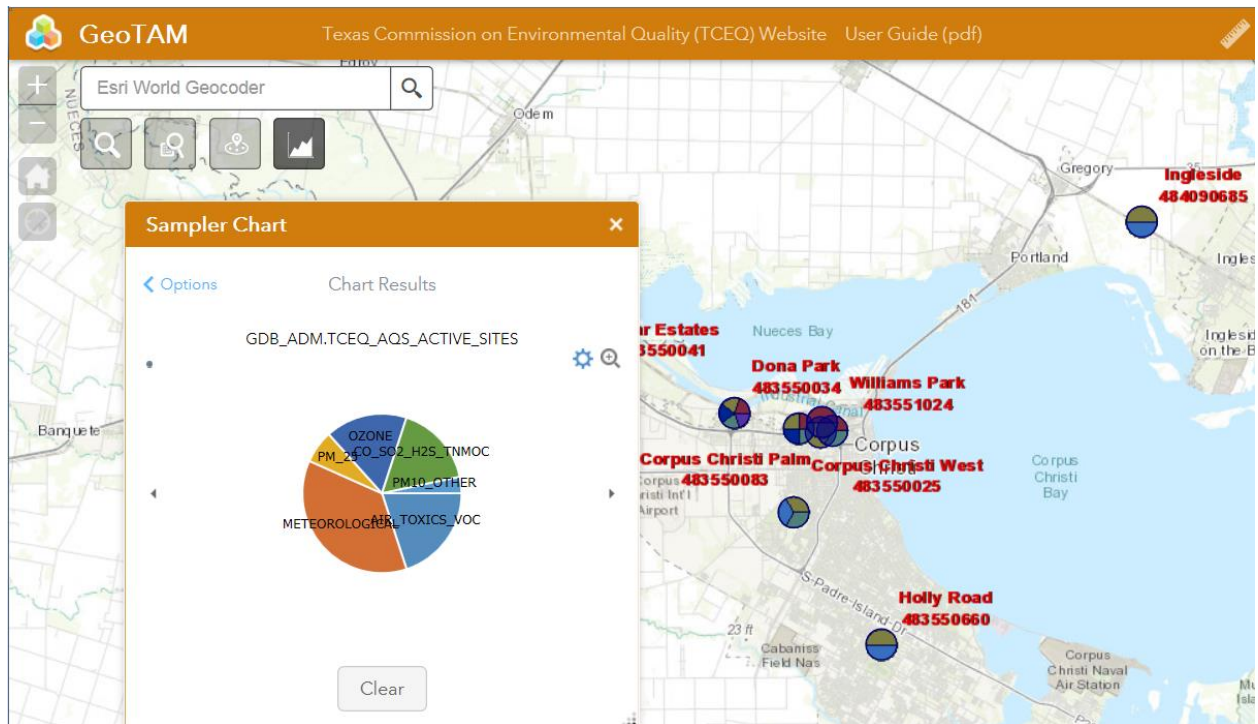




At present, the **Options** button does not function.

Clicking on the **Use spatial filter to limit features** check box allows you to define the geographic extent of the features for which you want to display sample results.

Clicking on the **Apply** button displays the sampling results for the selected geographic area. The example below displays the distribution of pollutants in the Corpus Christi area.



Clicking on the blue Settings wheel in the upper right corner of the Sampler Chart allows you to change the colors the display uses.

### Sampler Chart

Options | Chart Results

GDB\_ADM.TCEQ\_AQS\_ACTIVE\_SITES

Parameter	Color
METEOROLOGICAL	Orange
AIR_TOXICS_VOC	Blue
PM10_OTHER	Green
OZONE	Dark Blue
CO_SO2_H2S_TNMOC	Light Green
PM_2.5	Yellow

Clear

4mi  
748 Degrees

Map: Nueces Bay, Dona Park, 3550041

Data Labels

Color

Blue	Orange	Grey	Yellow	Blue	Green
Blue	Grey	Blue	Dark Blue	Dark Grey	Dark Blue
Orange	Yellow	Green	Brown	Olive	Dark Green
Green	Blue	Yellow	Dark Green	Dark Blue	Olive
Dark Blue	Blue	Blue	Blue	Light Blue	Light Blue
Brown	Orange	Orange	Light Orange	Light Orange	Light Orange
Grey	Grey	Grey	Grey	Grey	Grey
Yellow	Yellow	Yellow	Light Yellow	Light Yellow	Light Yellow
Dark Blue	Blue	Blue	Blue	Light Blue	Light Blue

# Main Toolbar



2



Each of the tool buttons in the main toolbar opens a new window.

Each of these tools will be described in the following sections.

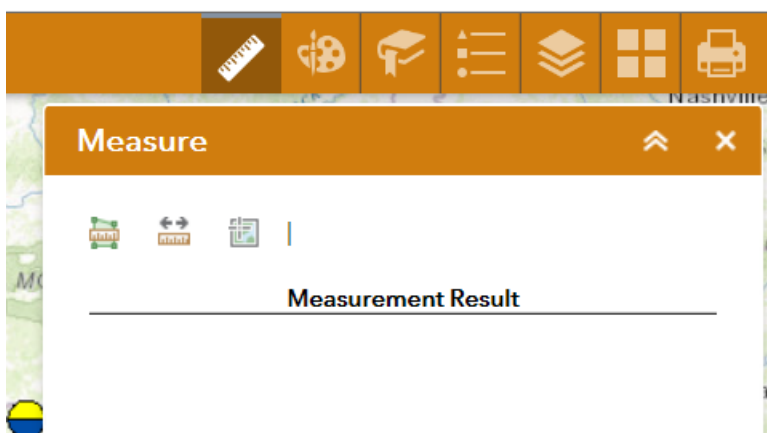
For each of the tool windows:

- To collapse the window, click the tool  on the Layer List bar.
- To close the window, click the Close tool  in the upper right hand corner.


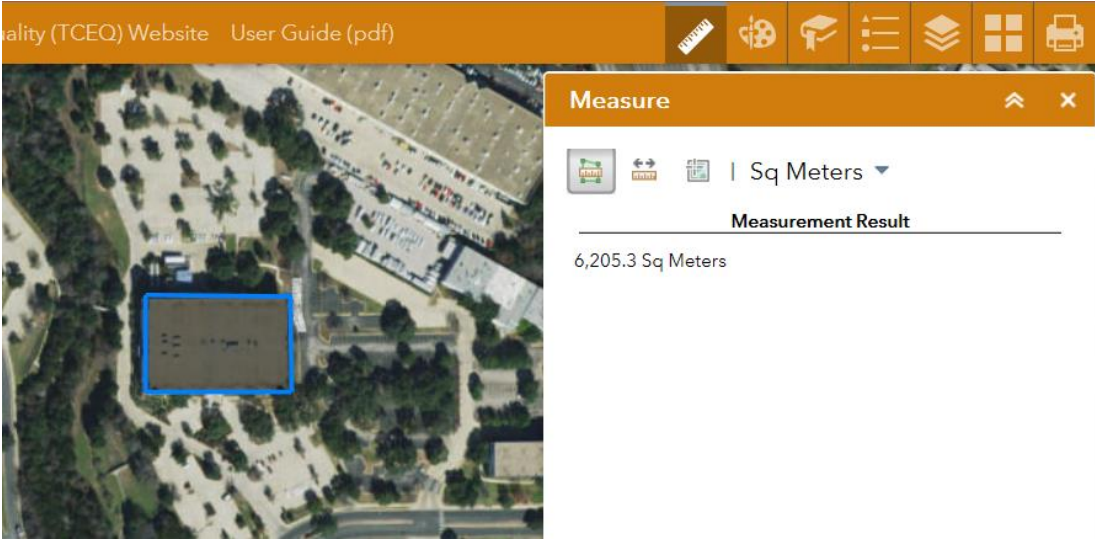



## Measure tool

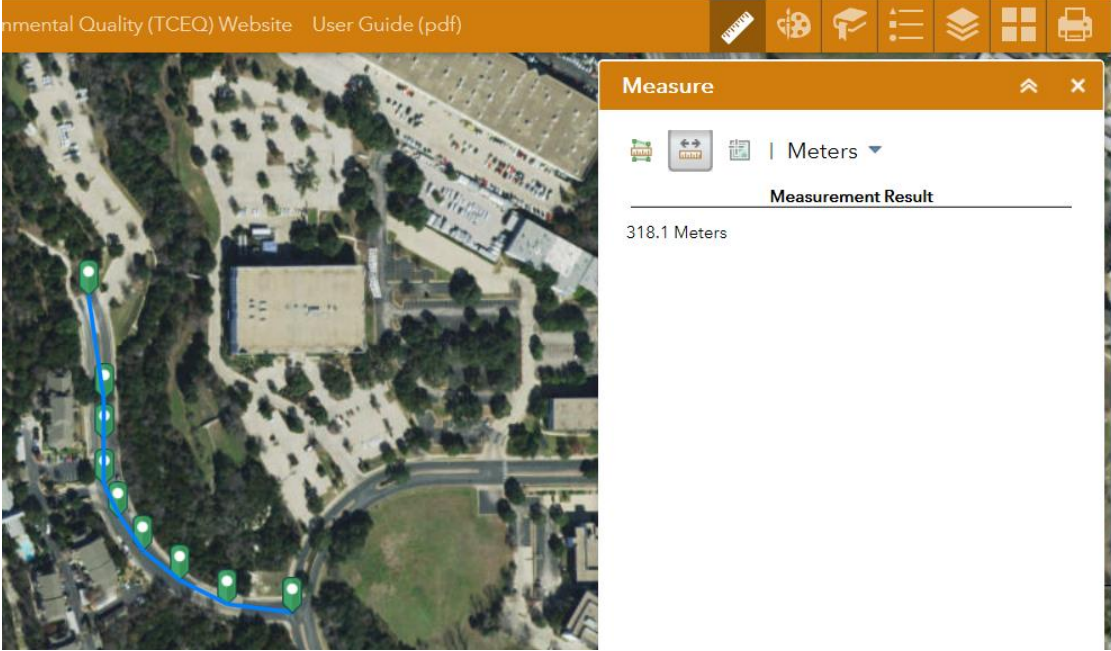

The Measure tool enables the user to measure point, linear, and area features on the map.

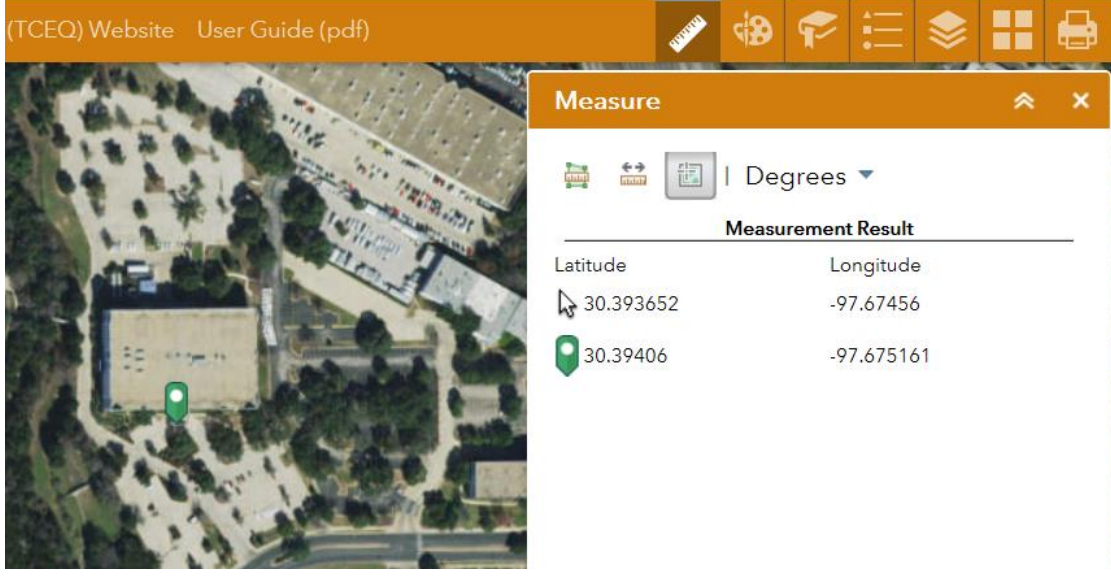


There are three different ways to measure features on the map, as represented in the table below:

Icon	Description
	<p><b>Area</b> – Click this button, then choose a unit of measure from the drop-down list.</p> <p>Single-click the first point of your polygon on the map.</p> <p>Continue to single-click until you have finished measuring your area feature. Double-click to end.</p> <p>Results will appear in the Measure window.</p>  <p>The screenshot shows a software interface with a map on the left and a 'Measure' window on the right. The map displays a blue-outlined polygon on a building. The 'Measure' window has a title bar with 'Measure' and window controls. Below the title bar, there are icons for area, distance, and perimeter, followed by a unit dropdown menu set to 'Sq Meters'. A horizontal line separates the unit selection from the 'Measurement Result' section, which displays '6,205.3 Sq Meters'.</p>
	<p><b>Distance</b> – Click this button, then choose a unit of measure from the drop-down list.</p> <p>Single-click the first point of your line on the map.</p> <p>Continue to single-click until you have finished measuring your linear feature. Double-click to end.</p> <p>Results will appear in the Measure window.</p>



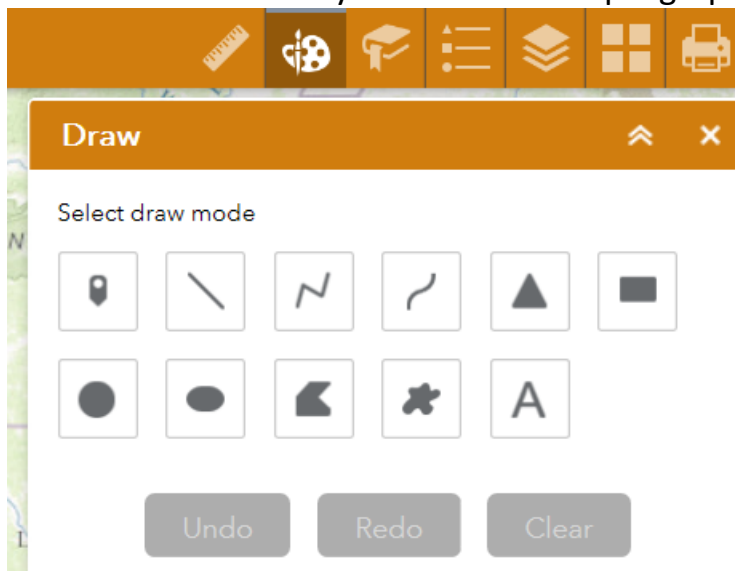
Icon	Description
	 <p>The screenshot shows a web browser window with the title 'Environmental Quality (TCEQ) Website User Guide (pdf)'. The main content is an aerial map with a blue line indicating a measurement path. A 'Measure' pop-up window is overlaid on the map, showing a unit selection dropdown set to 'Meters' and a 'Measurement Result' of '318.1 Meters'. The pop-up window also contains icons for measurement tools and a close button.</p>
	<p><b>Location</b> – Click this button, then choose a unit of measure from the drop-down list.</p> <p>Click a point on the map, then move the mouse across the map.</p> <p>Clicking on a point will place a green cursor in the display window, along with its location in the units of measurement you specified.</p> <p>If you continue to move the mouse, the location will continuously appear in the display window next to the arrow symbol.</p>

Icon	Description						
	 <p>(TCEQ) Website: User Guide (pdf)</p> <p><b>Measure</b></p> <p>Degrees</p> <p><b>Measurement Result</b></p> <table border="1"> <thead> <tr> <th>Latitude</th> <th>Longitude</th> </tr> </thead> <tbody> <tr> <td>30.393652</td> <td>-97.67456</td> </tr> <tr> <td>30.39406</td> <td>-97.675161</td> </tr> </tbody> </table>	Latitude	Longitude	30.393652	-97.67456	30.39406	-97.675161
Latitude	Longitude						
30.393652	-97.67456						
30.39406	-97.675161						














## Draw tool

The Draw tool allows you to draw multiple graphics on the viewer display.



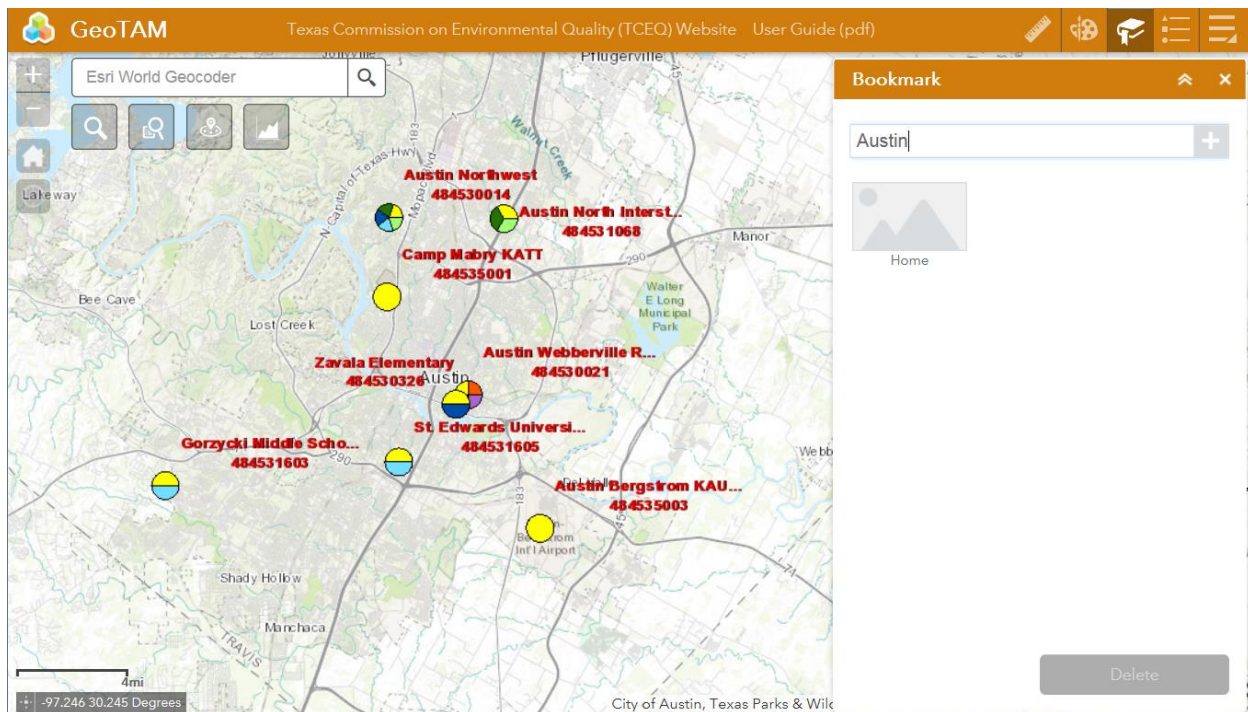
The following table describes the tools:

Icon	Description
	<b>Point</b> – Allows you to draw a point, using multiple shapes and colors.
	<b>Line</b> – Allows you to draw a straight line, using multiple widths, colors, and styles.
	<b>Polyline</b> – Allows you to draw a polyline with multiple vertices, using multiple widths, colors, and styles.
	<b>Freehand Polyline</b> – Allows you to draw a freehand polyline with multiple vertices, using multiple widths, colors, and styles.
	<b>Triangle</b> – Allows you to draw a triangle, using multiple colors, transparencies, and outline colors and widths.
	<b>Extent</b> - Allows you to draw a rectangular extent, using multiple colors, transparencies, and outline colors and widths.
	<b>Circle</b> – Allows you to draw a circle, using multiple colors, transparencies, and outline colors and widths.
	<b>Ellipse</b> – Allows you to draw an ellipse, using multiple colors, transparencies, and outline colors and widths.
	<b>Polygon</b> – Allows you to draw a polygon, using multiple colors, transparencies, and outline colors and widths.
	<b>Freehand Polygon</b> – Allows you to draw a freehand polygon, using multiple colors, transparencies, and outline colors and widths.
	<b>Text</b> – Allows you to insert text, specifying the font color and note size. To use this tool, you must first enter the text, and then specify Font Color and Font Size. You can then click on the map display where you want the text to appear.



## Bookmark tool

You can use the **Bookmark** tool to save a particular map extent (or zoom area). For example, you may wish to zoom to a particular block or neighborhood, then create bookmark to save that extent to revisit later.



To create a bookmark, click on the Bookmark tool in the main toolbar.

Type in a unique name for your bookmark and then click the add button (the plus sign) on the right. Your new bookmark will be added to the list of bookmarks in the display window.

You can click on individual bookmarks in the display window to zoom to each unique view.

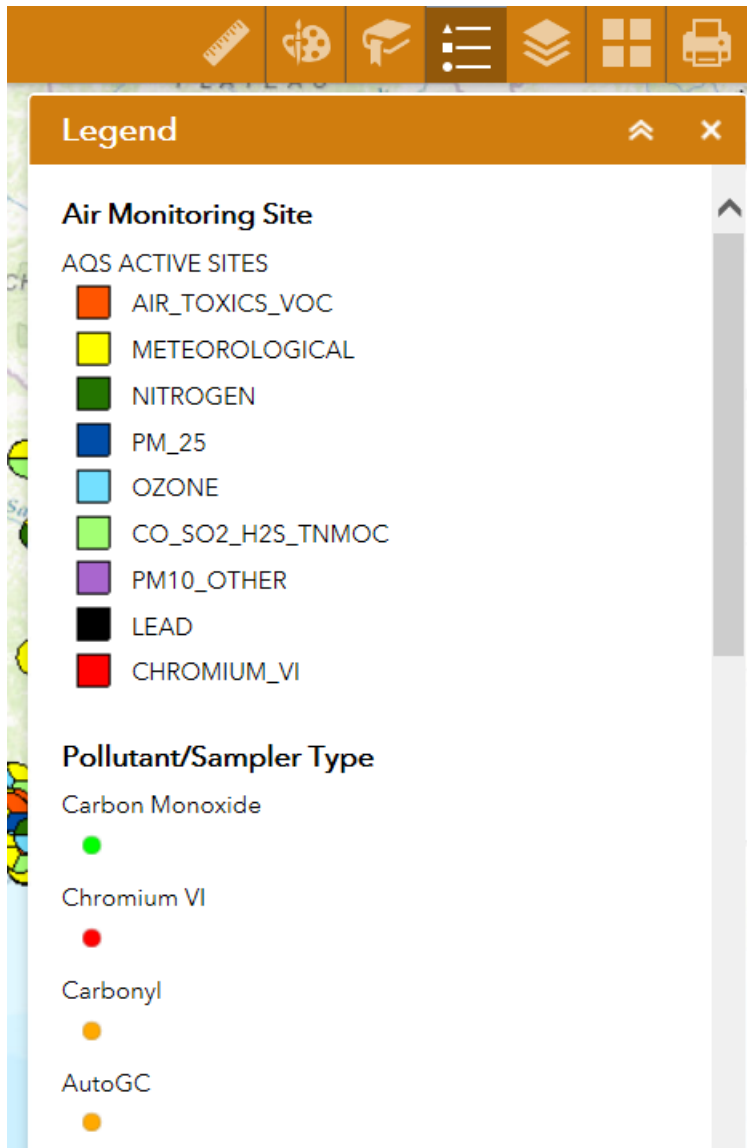
To delete a bookmark, select the bookmark and then click on the Delete button at the bottom of the display window.



## Legend

The **Legend** tool shows the symbology for the selected layers that you selected using the **Layers** tool.

The legend will display those layers that have been activated using the **Layers** tool.

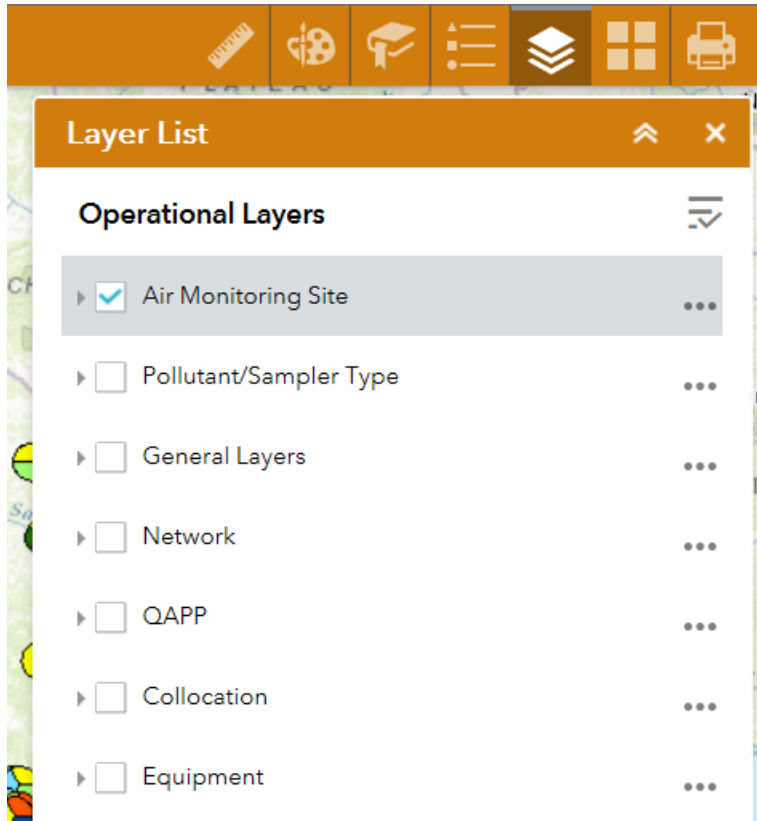






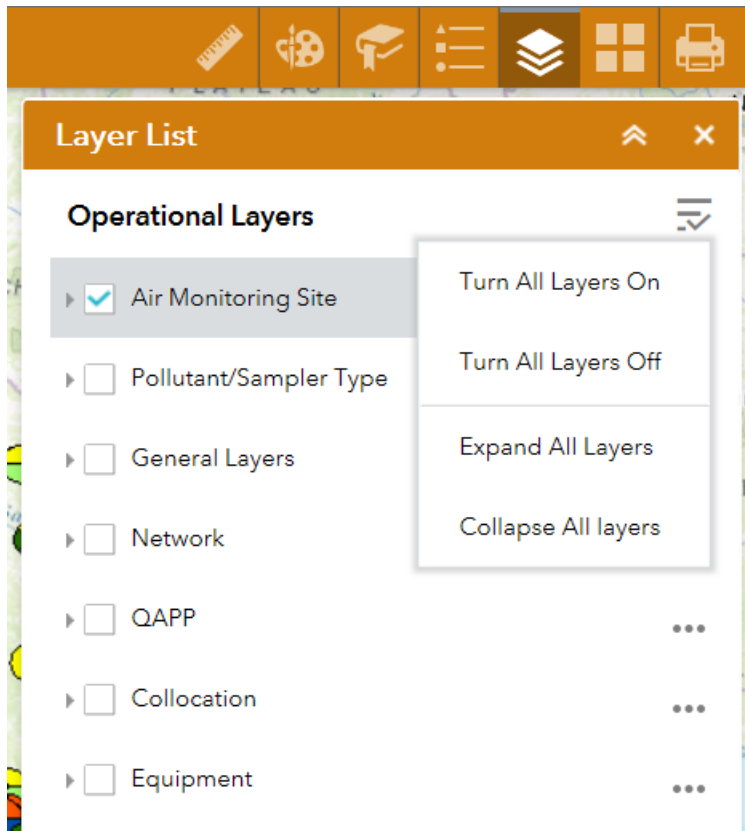
## Layer List

The **Layer List** tool can be used to turn on and off operational data layers such as Air Monitoring Sites, Pollutant Sampler Types, and General Layers.

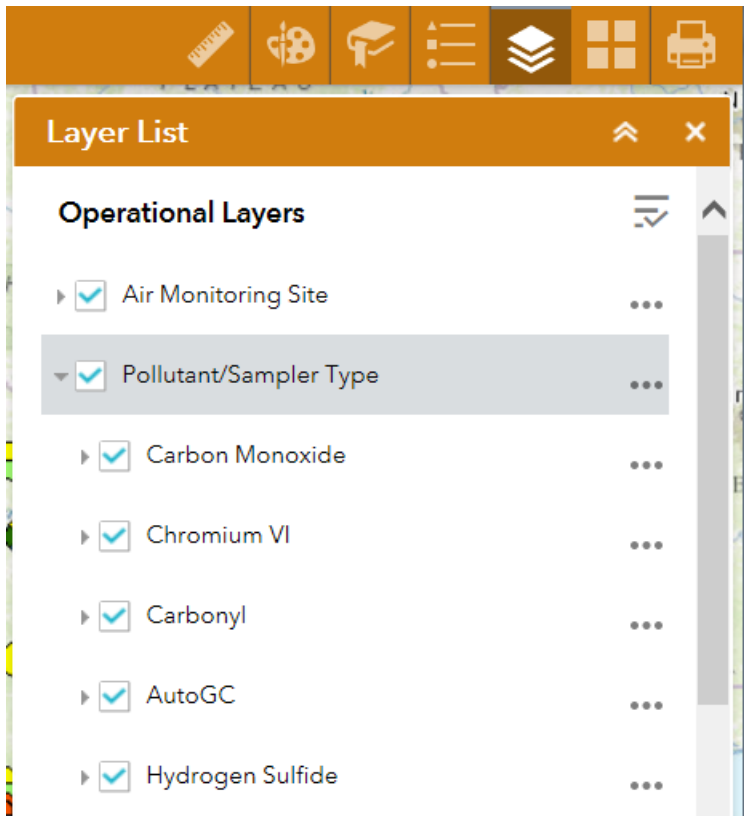


To displays specific layers, click the **Layers** button in the main tool bar, then check or uncheck the data layers you would like to display.

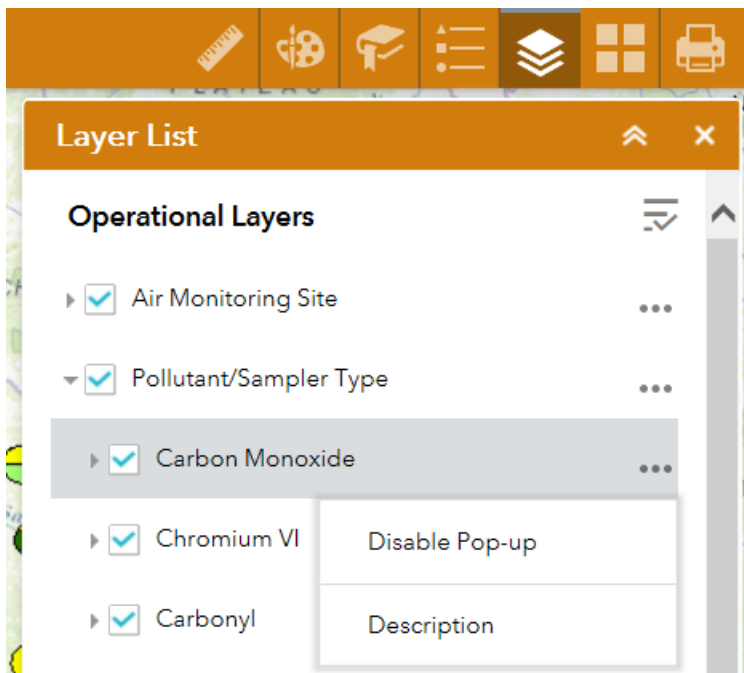
The **Layer List Master Display** tool in the upper right corner of the Layer List window allows you to turn all layers on or off, and to expand and collapse all layers.



For each layer, you can click on the arrow to the left of the layer name to expand the contents of the layer:

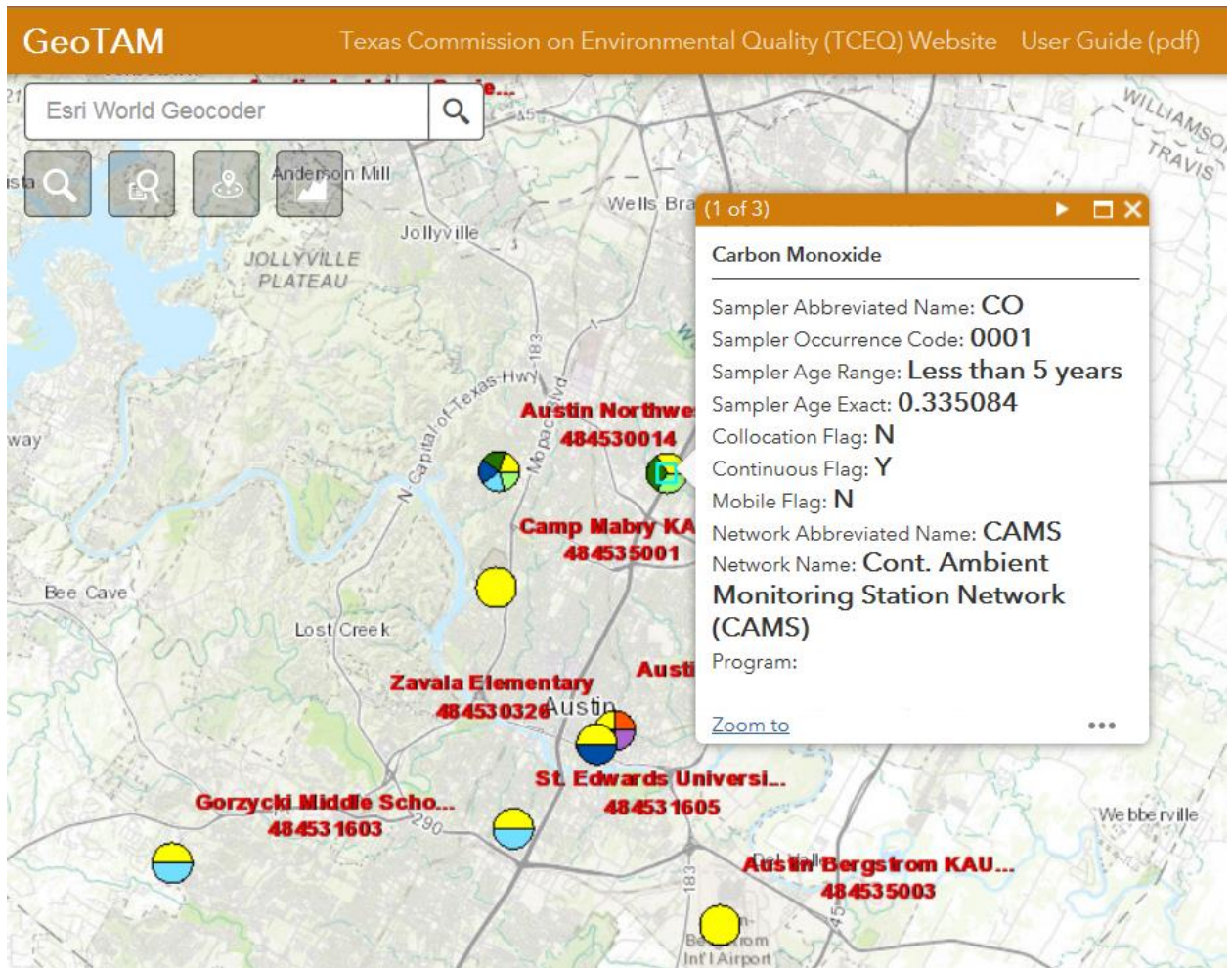


By clicking on the three ellipsis points to the left of the file name, you can open additional menu options.



You can either:

- Enable or disable the Pop-up. (When the pop-up is enabled, clicking on a point will display a pop-up window with additional information about the site, as represented below.



Furthermore, by clicking on the arrow in the window banner, you can scroll through multiple pop-up screens displaying additional information about the site.

If you disable the pop-up, the viewer will limit the number of pages for you to scroll through.

- Display a **Description** of the layer:

[JSON](#)

## Layer: Carbon Monoxide (ID: 0)

**Name:** Carbon Monoxide

**Display Field:** TYP\_NAME

**Type:** Feature Layer

**Geometry Type:** esriGeometryPoint

**Description:**

**Definition Expression:**

**Copyright Text:**

**Default Visibility:** false

**MaxRecordCount:** 1000



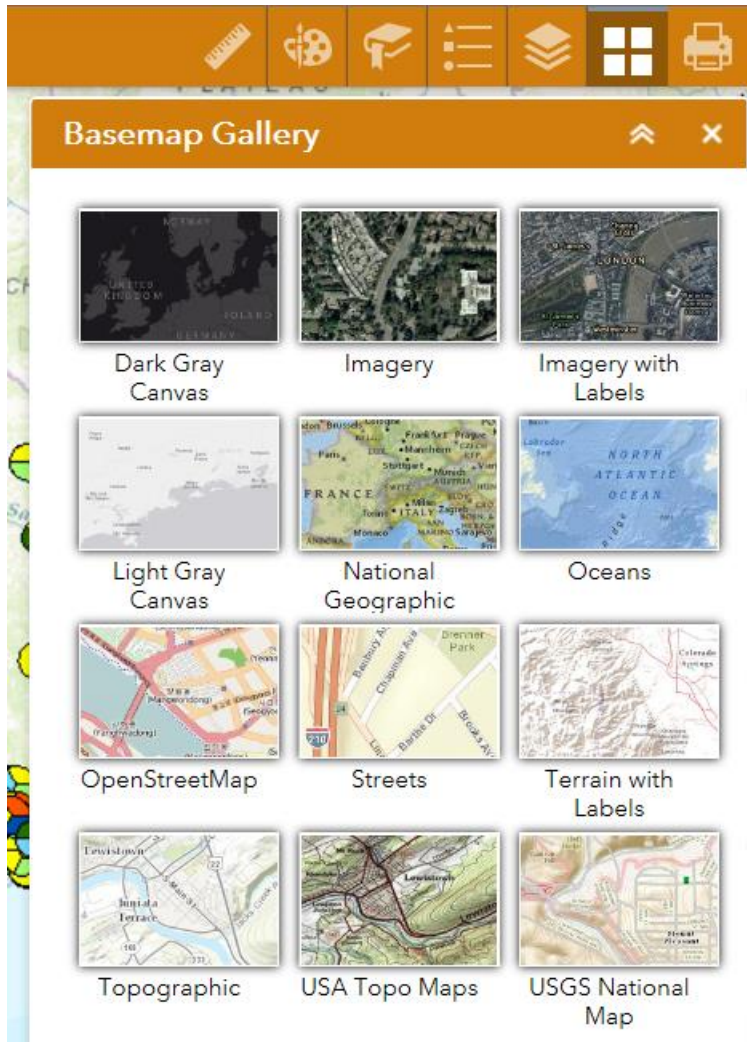
## Basemap Gallery

Use the **Basemap** tool 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.

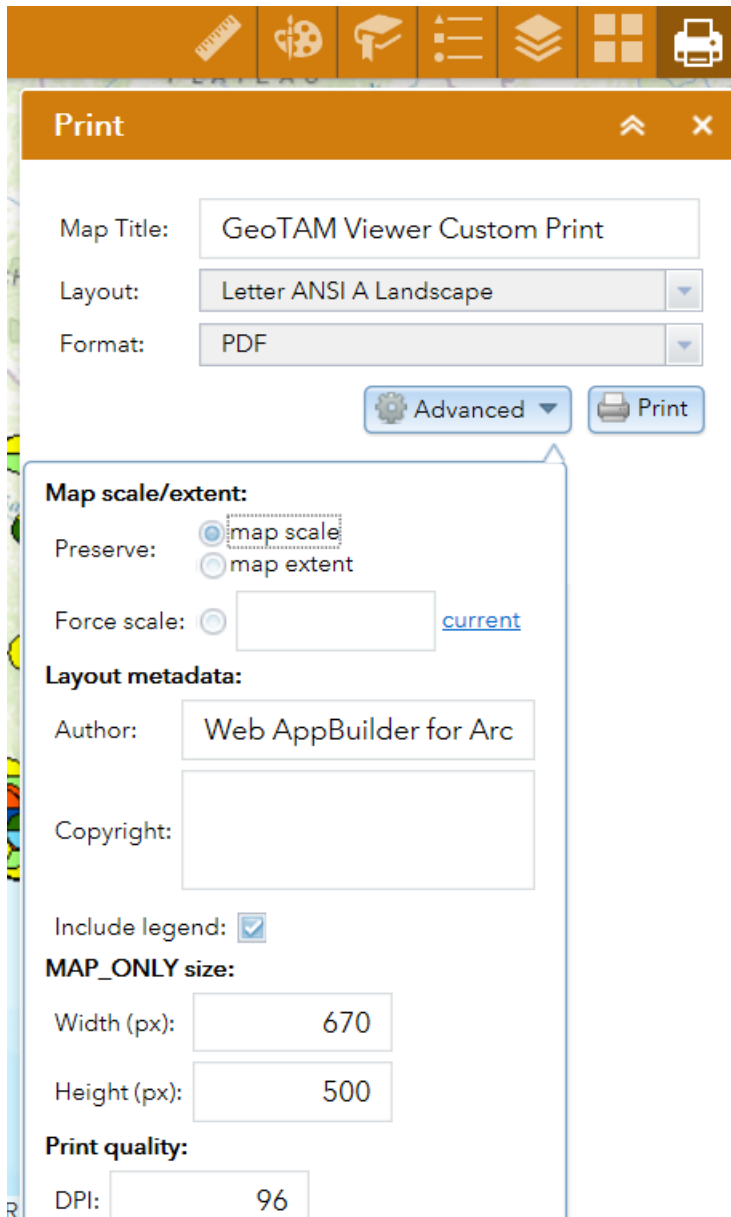




You may choose from twelve different basemaps. Note: Some basemaps (such as Open Streetmap) are not visible when zoomed in too close.



Use the **Print** tool to save the current map to an image file.



You may give it a customized Map Title, select a Layout, and specify a Format.

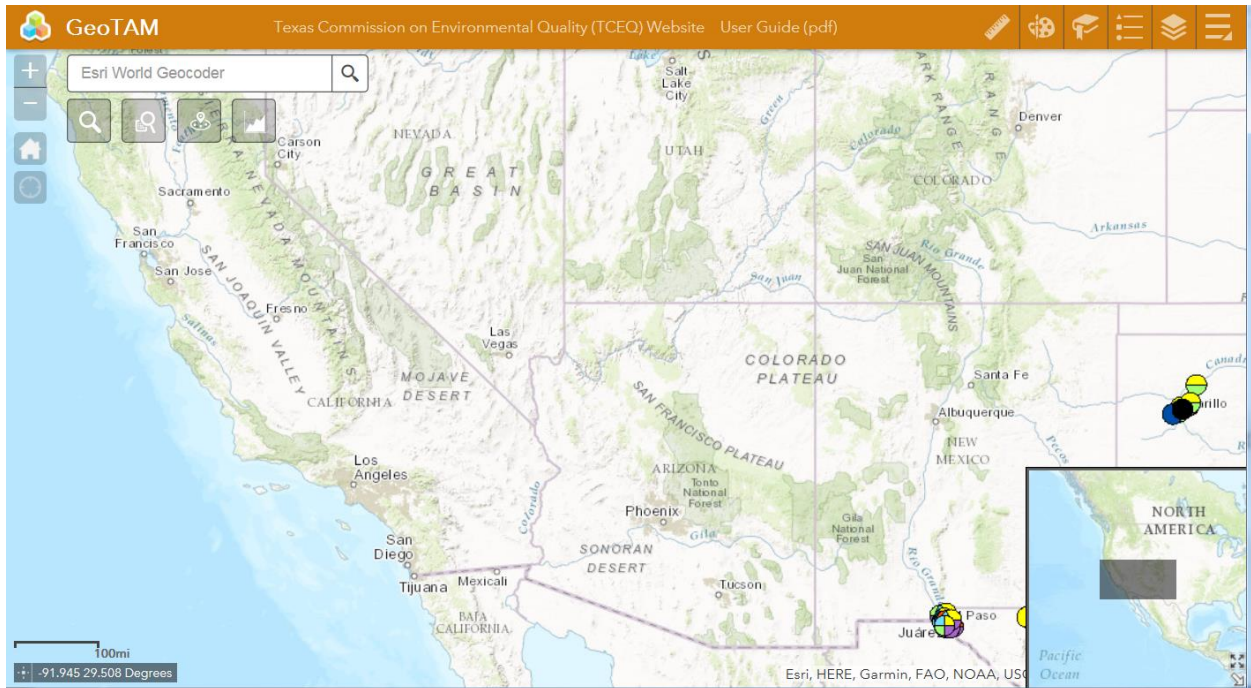
Advanced features allow you to set the **Map scale/extent**, make **Layout metadata** entries, specify pixel dimensions (**MAP\_ONLY size**), and **Print quality** in DPI.


# Inset Map

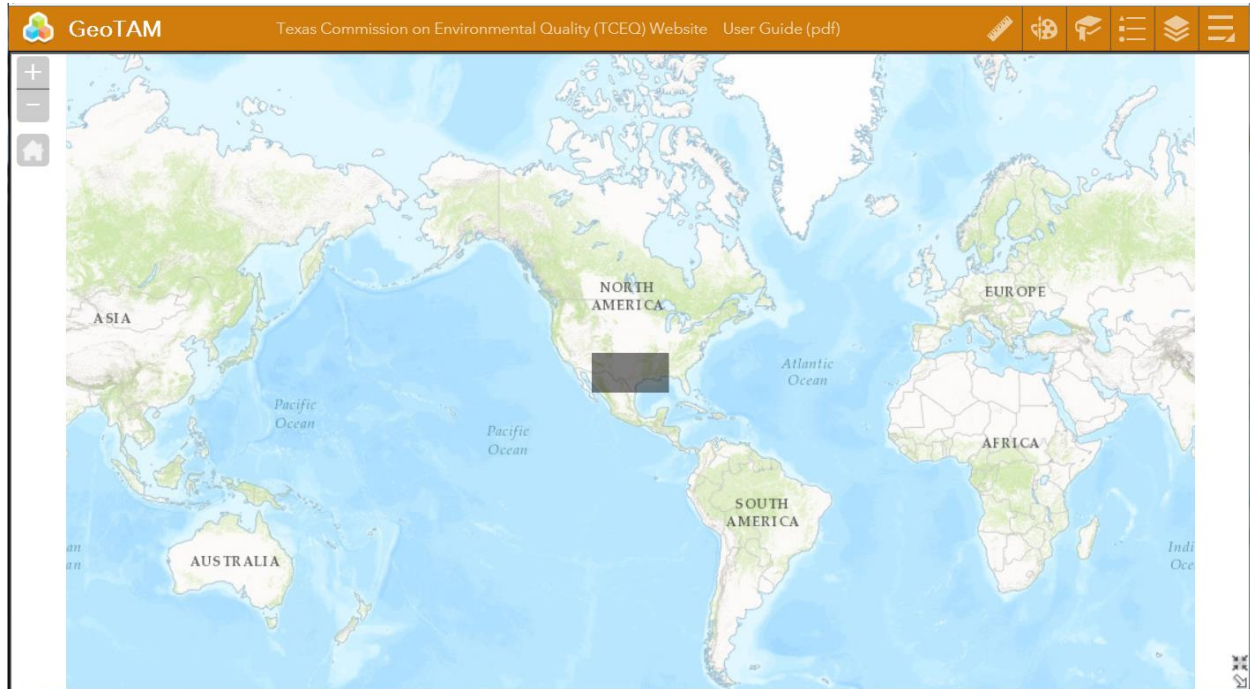
3




The Inset map allows you to **click and drag** the gray box to reposition the main map. The image below shows what happens if you drag the inset map west to California:



Click the four arrow box with arrows pointing outward to zoom out  to a map view of the entire world:



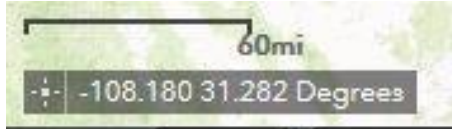
Click on the same box with arrows pointing inward  to restore the viewer to the previous extent


To close the overview map, click the white arrow  in the bottom right corner.

To restore the overview map, click on the white arrow again.

# Coordinate Indicator

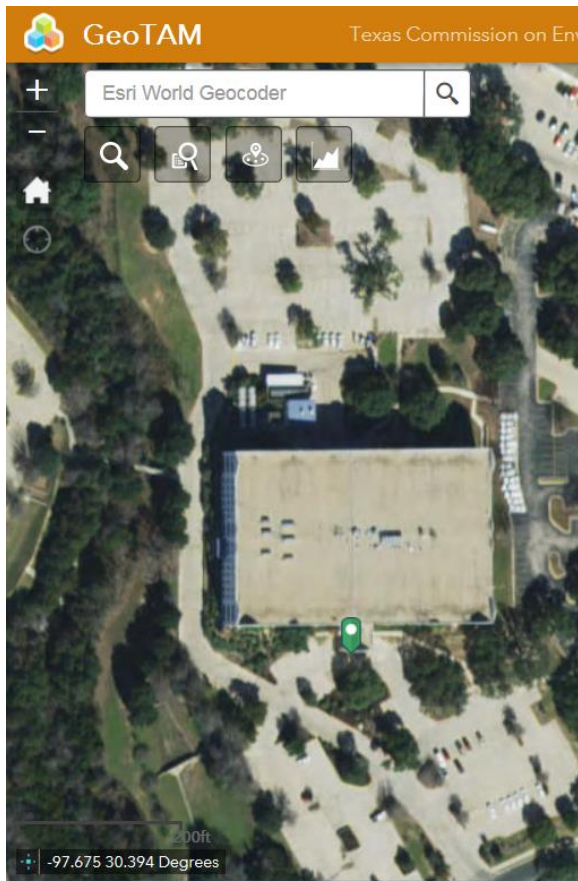
4



Click on the Coordinate tool , and then click anywhere on the map to obtain the coordinates of the selected point in decimal degrees.

The viewer will place a green cursor on the point you selected, and will display the coordinates in the Coordinate Indicator window.

The image below displays the coordinates for the south entrance to Building A in the TCEQ Park 35 Complex in Austin, Texas.



Click on the tool again to remove the green cursor from the map display.

As you move the cursor over the map, the tool will display the coordinates of your current mouse position.

**Version:** This user guide was last updated on April 20, 2017.