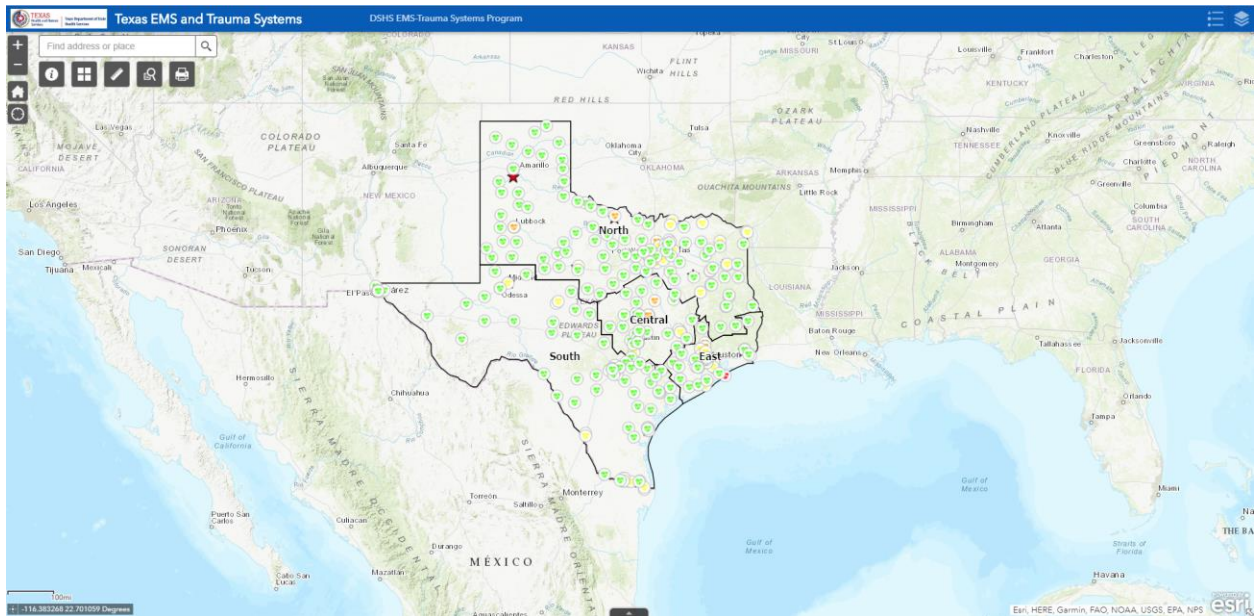


# Texas EMS and Trauma Systems App User Guide



## Texas Department of State Health Services



**Consumer Protection Division  
Policy, Standards, & Quality Assurance Section  
EMS and GIS Unit**

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# Application Overview

The screenshot below provides an overview of the functions and widgets available in this viewer. The user guide is divided into six sections.





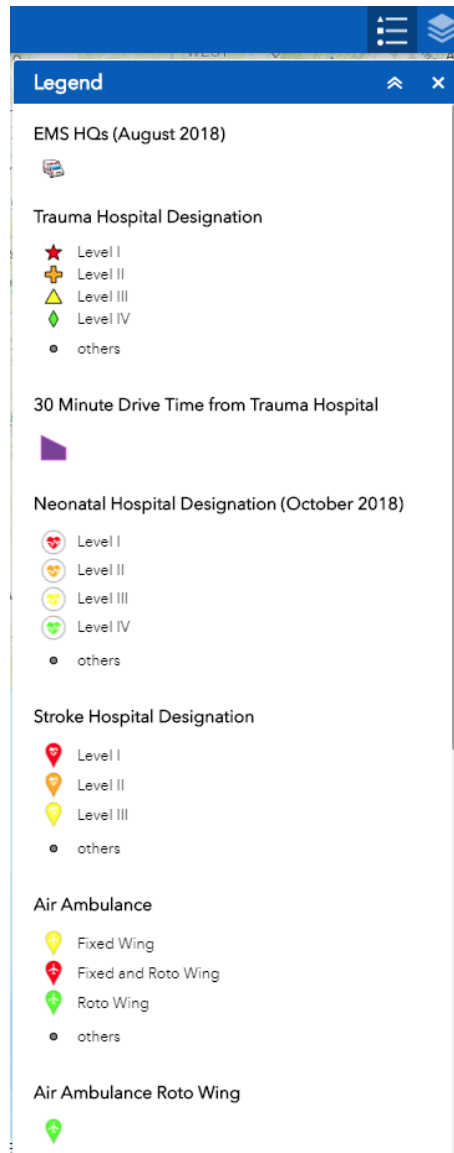
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- 2. Zoom and Search Tools**
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# Legend, Layers, and Situation Awareness








## Legend

- The Legend widget displays labels and symbols for layers in the map.
- Click the legend button  to open the widget.
  - Clicking the Legend widget displays the Legend window.
  - Clicking the X in the upper right corner of the Legend window closes it.
  - Clicking the double arrows button  to dock the Legend window on the map.



## Layers



- The Layers widget provides a list of operational layers and their symbols and allows you to turn individual layers on and off. Each layer in the list has a check box that allows you to control its visibility (see screen shot on next page).
- Click the layers button  to open the widget.
  - Layers in the list are unavailable when zoomed out of their visible ranges.
  - Click an individual layer to show its symbols. Click it again to hide the symbols.
  - Click the three dots button  on the right side of a layer to display the layer menu with the following options:
    - **Zoom To**—Sets the map extent to the extent of the layer.
    - **Transparency**—Sets the transparency for the layer.
    - **Enable pop-up/Disable pop-up**—Enables or disables the pop-up for the feature layer. If a feature layer does not have a pop-up configured in the map, clicking **Enable Pop-up** shows all field values for the feature layer.
    - **Move up**—Moves the layer one level up.
    - **Move down**—Moves the layer one level down.
    - **View in attribute table**—Opens the attribute table for the feature layer.
    - **Show item details**—Opens the service description or the item details page for the service or the item associated with the layer if available.
    -
  - Click the search button  to find layers.
  - Click the control all layers button  to control the behavior of the layers in the list. You can turn the layers on or off and expand or collapse the layers.
  - Clicking the X in the upper right corner of the Legend window closes it.
  - Clicking the double arrows button  to dock the Legend window on the map.

Layer List

Layers


- EMS HQs (August 2018) ...
- Trauma Hospital Designation ...
  - ★ Level I
  - + Level II
  - ▲ Level III
  - ◆ Level IV
  - others
- 30 Minute Drive Time ...
- Neonatal Hospital Designation ...
  - ♥ Level I
  - 👶 Level II
  - 👶 Level III
  - 👶 Level IV
  - others
- Stroke Hospital Designation ...
  - 📍 Level I
  - 📍 Level II
  - 📍 Level III
  - others
- Air Ambulance ...
  - ✈️ Fixed Wing
  - 📍 Fixed and Roto Wing
  - ✈️ Roto Wing
  - others
- Air Ambulance Roto Wing ...
- Roto Wing 10-Minute Flight Distance ...

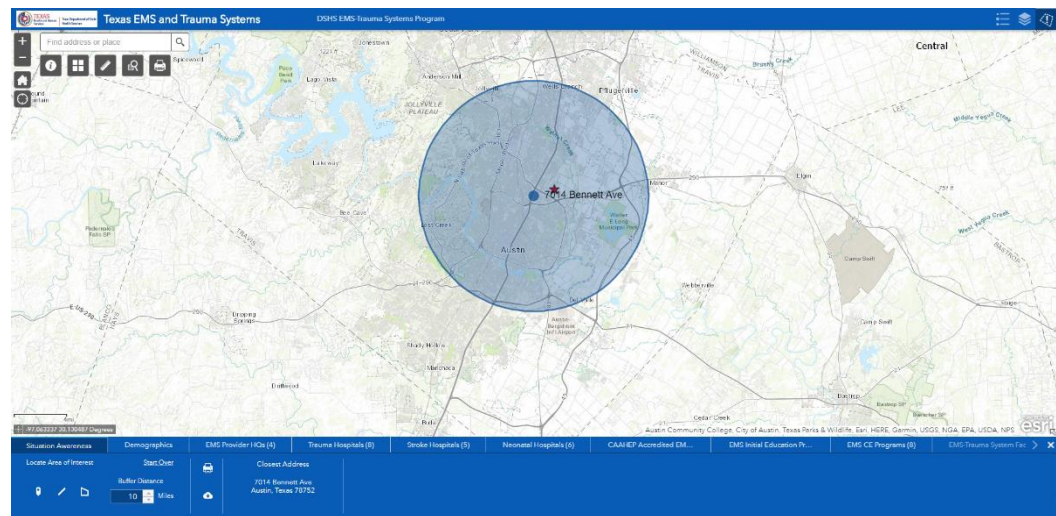
Context menu for Trauma Hospital Designation:


- Zoom to
- Transparency
- Disable pop-up
- Move up
- Move down
- View in Attribute Table
- Show item details

## Situation Awareness




- The Situation Awareness widget allows you to specify a location on a map and analyze information from feature layers within the specified area. (see screen shot on next page).
- Click the situation awareness button  to open the widget.
  - When the widget opens, visibility is turned off for all map layers that have been configured as source layers.
  - The layers become visible when used by the widget.
  - When the widget is turned off, layer visibility returns to its original state.
  - The **Situation Awareness** tab is selected by default

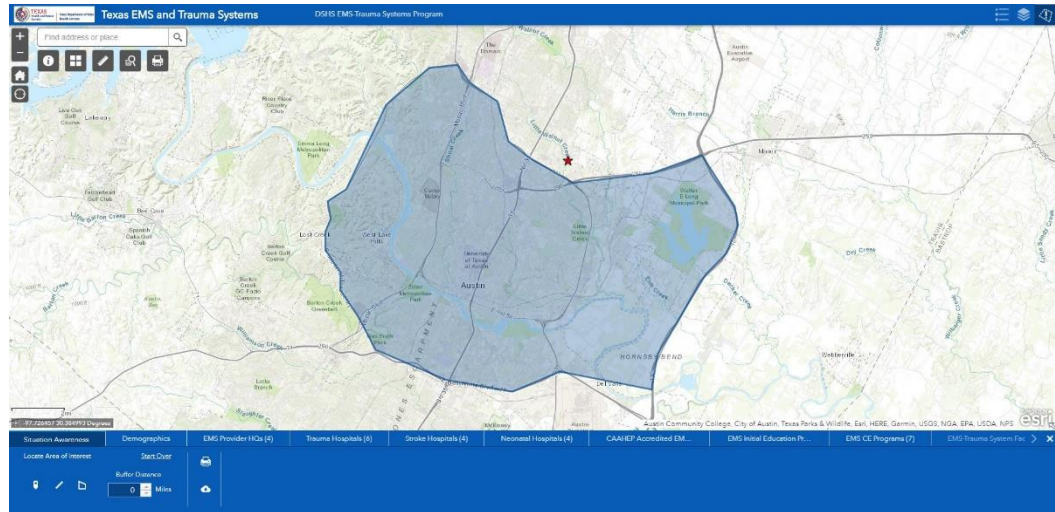



- Define or locate an area of interest the following ways:
  - Use the drawing tools (point, line, or polygon)  on the widget's **Situation Awareness** tab to create a location to analyze.
    - Specify a buffer distance to the location.
  - Click an existing feature to show its pop-up. Then click the more information button to see a list of feature actions, and choose **Set Location** (see images on next page).
    - Then specify a buffer distance to the location and click on map.




- Use the drawing tools  on the widget's **Situation Awareness** tab to create a location to analyze (see image on next page).
  - Optionally, specify a buffer distance to the location.

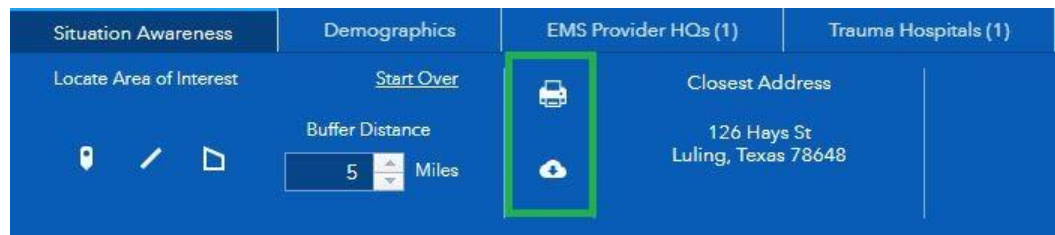





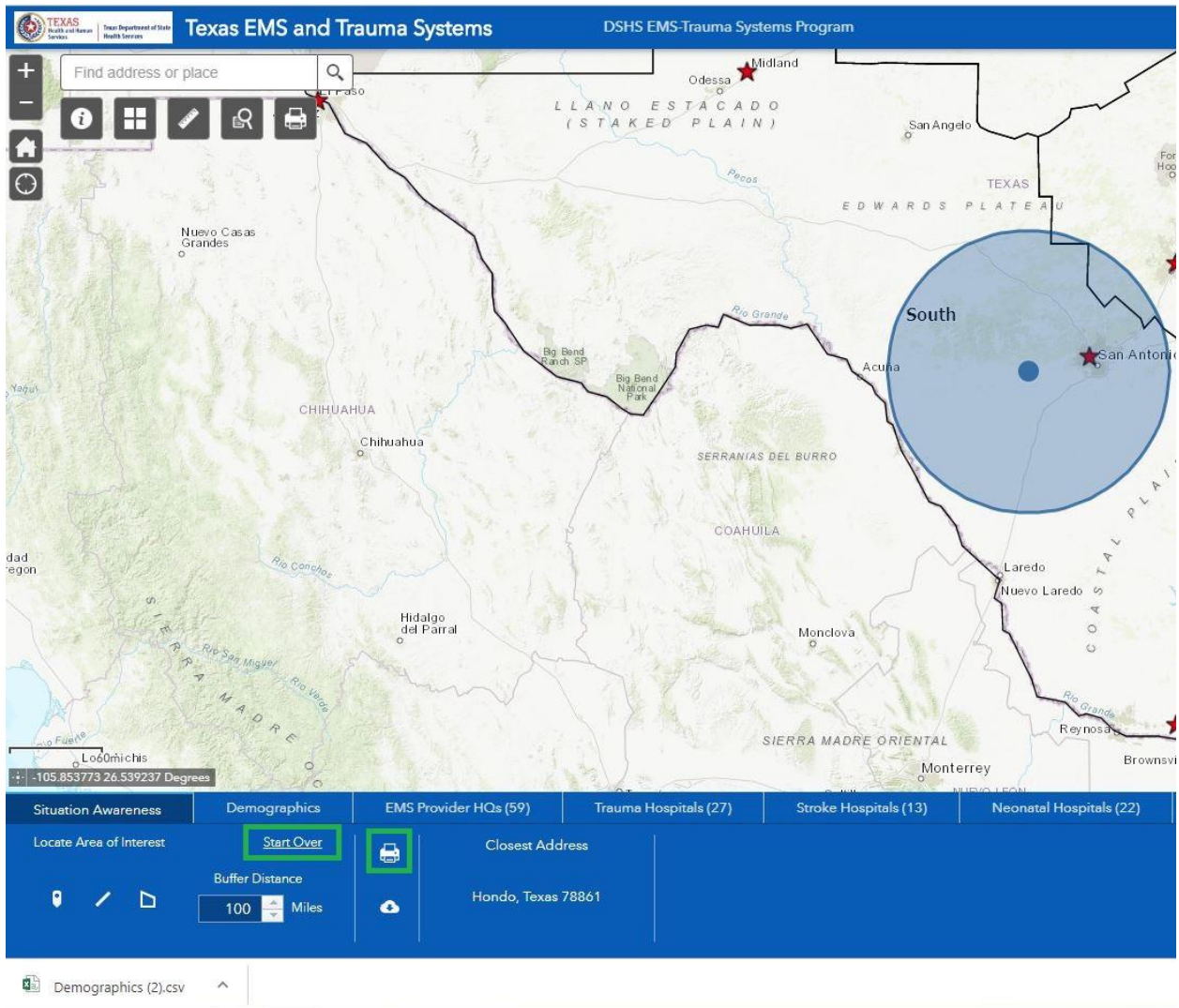
- Click the individual Layer tabs to view the analyzed information for specified layers. Scroll the widget panel horizontally to view the additional results.
  - To download the summarized information for the individual layer, click the **Download** button .



- To download summarized information for all layers, click the **Situation Awareness** tab and then click the **Download All** button .



- Click the **Printer button**  to create report and set report properties.
  - Enter report title.
  - Select page orientation
  - Set page size.
  - Optionally, add comments
  - Click Ok to create report.
- To clear the active location, click the **Start Over**.





The screenshot displays the Texas EMS and Trauma Systems web application. At the top, the header includes the Texas Department of State Health Services logo and the text "Texas EMS and Trauma Systems" and "DSHS EMS-Trauma Systems Program". Below the header is a search bar with the placeholder text "Find address or place" and a magnifying glass icon. To the left of the search bar are several navigation icons: a plus sign, a minus sign, a home icon, a refresh icon, an information icon, a window icon, a pencil icon, a magnifying glass icon, and a printer icon. The main area is a map of Texas with a blue circular area of interest centered on San Antonio. The map shows various geographical features like rivers (Rio Grande, Rio Conchos, Rio San Miguel, Rio Valero) and regions (LLANO ESTACADO, EDWARDS PLATEAU, SERRANIAS DEL BURRO, COAHUILA, SIERRA MADRE ORIENTAL, COASTAL PLAIN). Below the map is a data panel with several tabs: "Situation Awareness", "Demographics", "EMS Provider HQs (59)", "Trauma Hospitals (27)", "Stroke Hospitals (13)", and "Neonatal Hospitals (22)". The "Demographics" tab is active, and it contains a "Start Over" button (highlighted with a green box), a printer icon (highlighted with a green box), and a "Closest Address" field showing "Hondo, Texas 78861". At the bottom left, there is a file name "Demographics (2).csv" and a small upward arrow icon.

## Zoom and Search Tools


### Zoom In and Out



- Click the plus button  to zoom in at fixed increments and then click on the map and drag to move to an area of interest.
- Click the minus button  to zoom out at fixed increments.

### Home



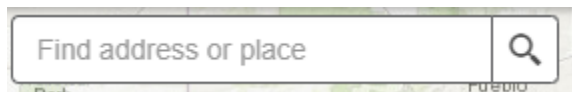
- Click the home button  to return to the default extent of the web map.

### My Location



- Click the location button  to show your current location.

### Search




- Type an address (8407 Wall St. Austin, Texas) or place name into the search bar. As you type similar matches will be presented. If the match presented is your desired water body simply click on it and the map will zoom to that location.
- You may also continue typing and then press Enter or click on the magnifying glass to zoom to that location.

# Map Widgets




## About

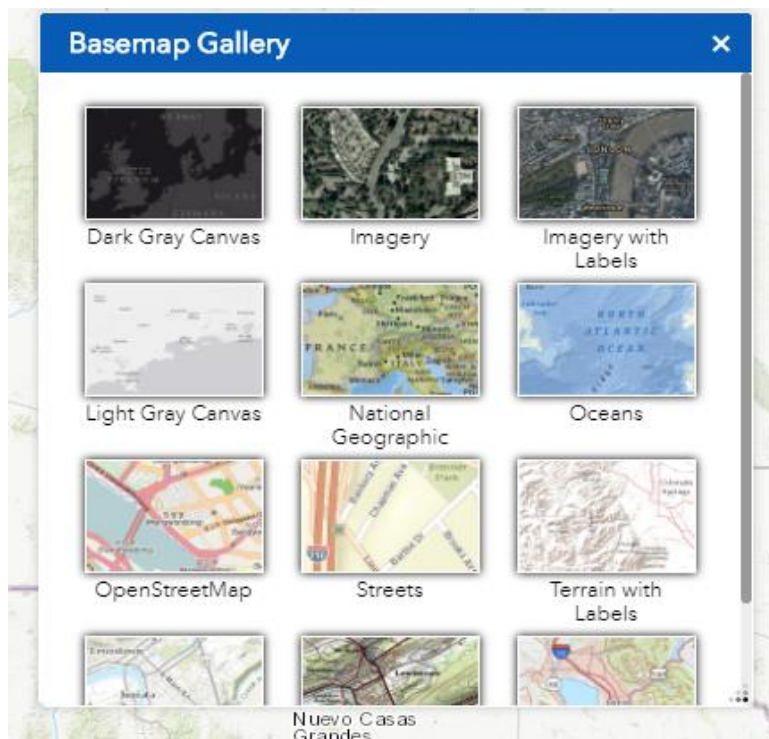


- Click the about button  to learn about the *Texas EMS and Trauma Systems App*.

## Basemap Gallery





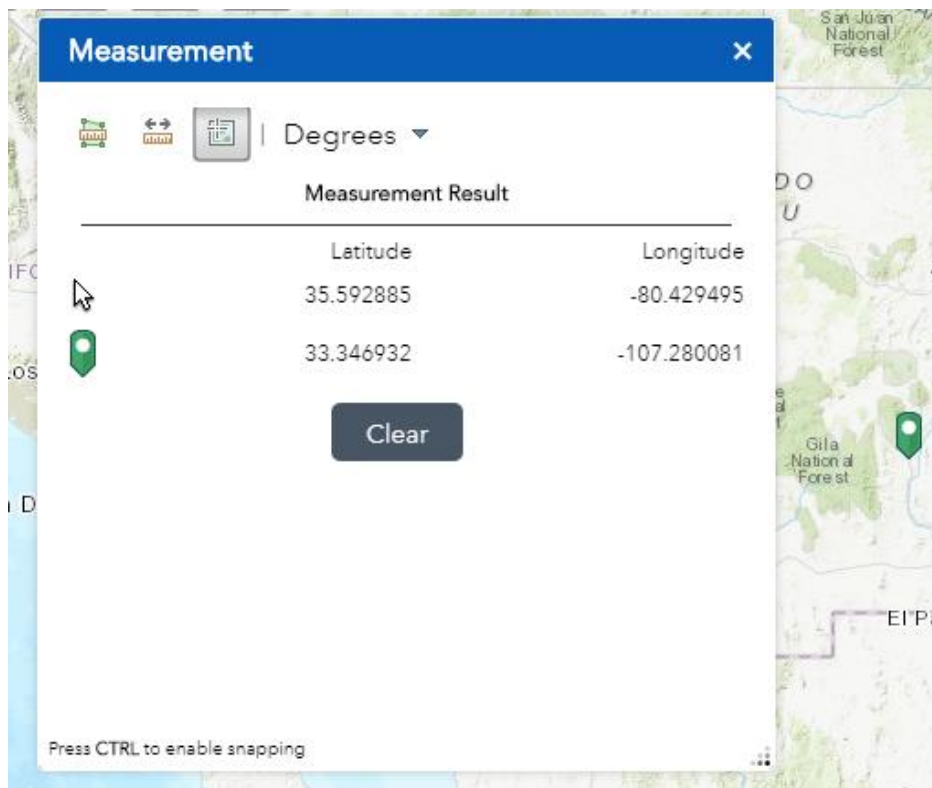
- The Basemap Gallery widget presents a gallery of basemaps and allows you to select one from the gallery as the basemap for the *Texas EMS and Trauma Systems App*.
- Click the basemap button  to display the basemap gallery pop-up. Then click a basemap thumbnail to set the active basemap for the app.
- Click the X in the upper right corner of the Basemap Gallery window to close it.
- The topographic basemap is the default basemap.




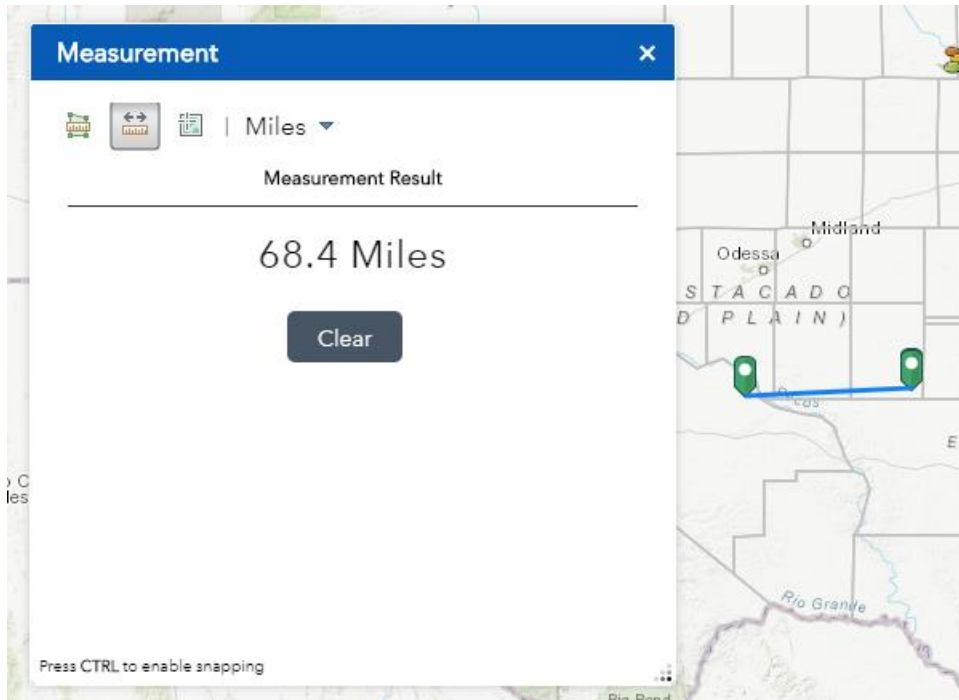
## Measurement




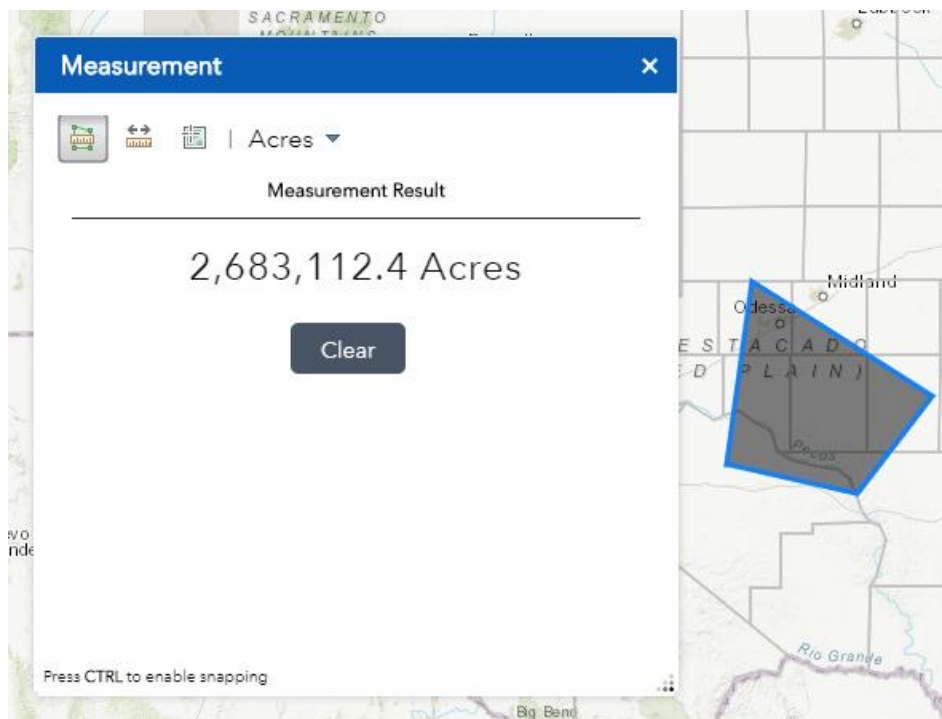
- The Measurement widget allows you to measure the area of a polygon (acres) or length of a line (miles) or find coordinates of a point.
- Click the measurement button  to open the widget.
  - Click the point measurement button  and then click a point on the map.
  - The Measurement widget displays the coordinates for the point in decimal degrees. To change the coordinate display format to degrees/minutes/seconds, change the selection in the **Degrees** drop-down menu to **DMS**.



- Click the polyline measurement button  then draw a polyline on the map by clicking two or more points.
- Double-click to finish drawing the polyline.
- The Measurement widget displays the total length of the polyline using the defined **Default Length Unit**. To change the length unit, select the applicable unit of measure from the **Miles** drop-down menu.




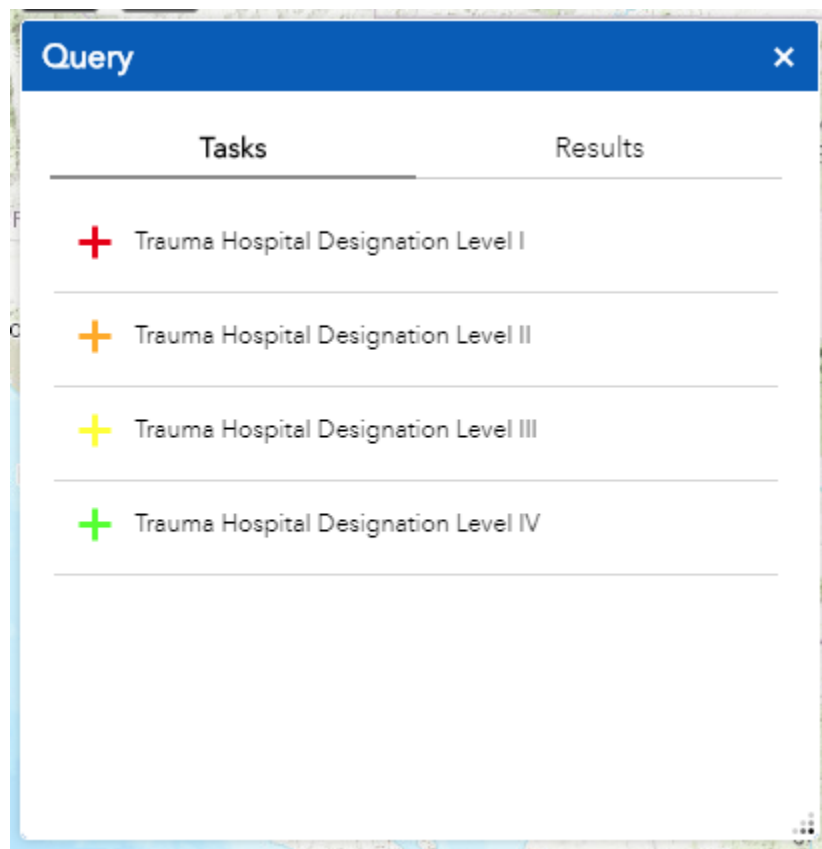
- Click the polygon measurement button  then draw a polygon on the map by clicking three or more points.
- Double-click to finish drawing the polygon.
- The Measurement widget displays the total area of the polygon using the defined **Default Area Unit**. To change the area unit, select the applicable unit of measure from the **Acres** drop-down menu.








## Query



- The Query widget allows you to retrieve information from source data by executing a predefined query.
- Click the query button  to open the widget. A list of queries is shown on the **Tasks** tab if there is more than one configured query.
  - If the widget has only one query and it does not ask for input from end users, clicking the widget will run the query and immediately display the results.




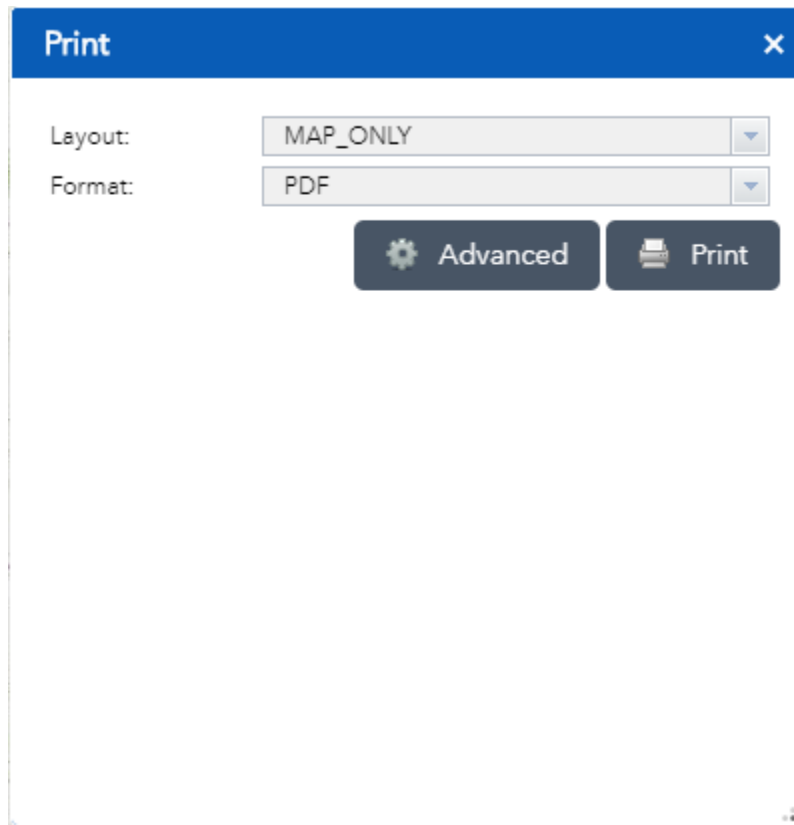
- Click one of the Trauma Hospital Designation Level queries.
  - The result is shown on the **Results** tab, and the resulting features display on the map with the symbol specified during configuration.
- In the query results panel:
  - **Displayed features**—show how many results are displayed out of all results returned.

- Click **Expand all**  or **Collapse all**  to expand/collapse all result details displayed, and  or  for individual results.
- Click a displayed feature in the list to zoom to the feature.
- Click the ellipsis button  to take actions on the results set as follows:
  - Zoom to
  - Pan to
  - Statistics
  - View in Attribute Table
  - Remove this result

## Print



- The **Print** widget connects the web app with a printing service to allow the current map to print.
- Click the print button  to open the widget.
  - Select the applicable **Layout** and **Format** for the exported map.





- Click **Advanced** (see screen shot on next page) to open a menu with advanced print options.
  - **Map scale/extent** defines the method that the print service uses to calculate the printed extent of the map. Preserving **map scale** causes the printed map to maintain its scale while recalculating the extent around the existing center point. Preserving **map extent** causes the scale to adjust to fit the current map extent onto the printed map. You can also force a specific scale by clicking the **Force scale** option and providing a scale. Click **current** to populate the value with the present scale of the map.
  - **Output spatial reference WKID**—defines the output spatial references of the print by specifying a valid well-known ID (WKID).
  - **Layout metadata**—allows you to specify the scale bar units.
  - **MAP\_ONLY size**—If the Map\_Only format is selected, you can provide dimensions for **Width** and **Height** properties in pixels. Otherwise, these values are ignored.
  - **Print quality**—Allows you to update the resolution of the printed map. Provide an updated value for the **DPI** (dots per inch) in the text box.
  - **Feature attributes**—If **Include attributes** is checked, the feature's attributes are included in feature collection layers. This is only applicable to custom print services that use the feature attributes, for example, to display a table of features and their attributes.

**Print** [X]

Layout: MAP\_ONLY  
Format: PDF

[Advanced] [Print]

**Map scale/extent:**  
Preserve:  map scale  map extent  
Force scale:  [current](#)

**Output spatial reference [WKID](#) :**  
  
*WGS\_1984\_Web\_Mercator\_Auxiliary\_Sphere*

**Labels:**  
Show labels:

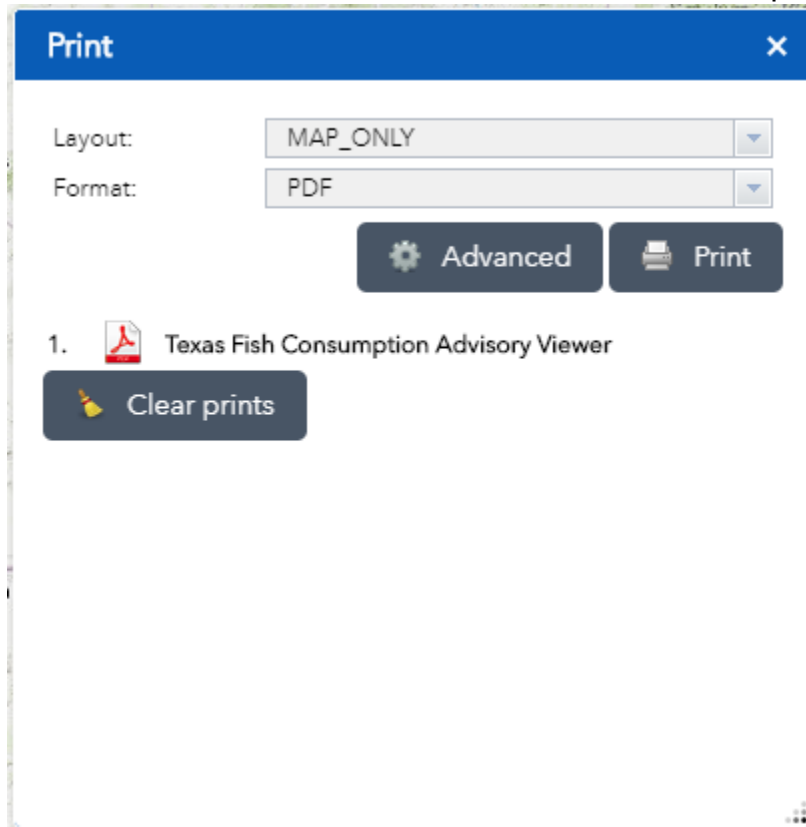
**Layout metadata:**  
Scale bar unit: Miles

**MAP\_ONLY size:**  
Width (px):   
Height (px):

**Print quality:**  
DPI:


**Feature attributes:**  
Include attributes:

- Click the **Print** to submit all information to the print service.



## Coordinates and Scale Bar





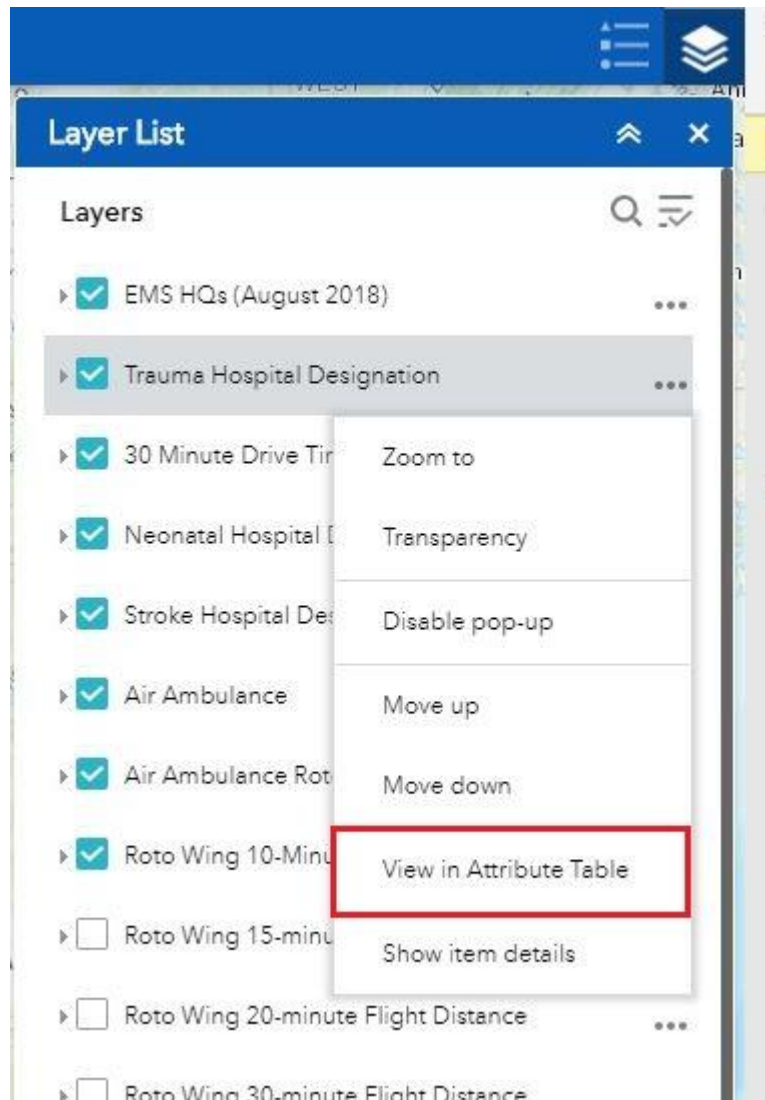
- The Coordinate widget displays x- and y- coordinate values on the map (lower-left corner of the app). With the default coordinate system of the web map, the coordinate values change dynamically when the mouse pointer moves to locations on the map.
- Click the Enable clicking the map to get coordinates button  to enable clicking the map to get coordinates.
- When the app starts the Scalebar widget is automatically enabled and displayed at the lower-left corner of the app. It is updated dynamically when the map's scale changes.

## Attribute Table

A screenshot of an attribute table overlaid on a map. The table has the following columns: USER\_PRIMARY\_NAME, USER\_ADDRESS, USER\_CITY, USER\_STATE, USER\_ZIP, USER\_Query2\_ALS, USER\_Query2\_BLS, USER\_Query2\_BLS\_ALS, USER\_Query2\_ALS\_MICU, USER\_Query2\_BLS\_MICU, USER\_Query2\_MICU\_ORC, USER\_Query2\_SPECIALTY, and USER\_Query2\_TOTAL. The table contains several rows of data for different fire departments and ambulance services.

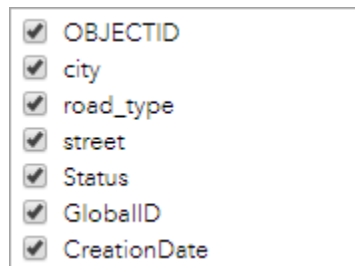
USER_PRIMARY_NAME	USER_ADDRESS	USER_CITY	USER_STATE	USER_ZIP	USER_Query2_ALS	USER_Query2_BLS	USER_Query2_BLS_ALS	USER_Query2_ALS_MICU	USER_Query2_BLS_MICU	USER_Query2_MICU_ORC	USER_Query2_SPECIALTY	USER_Query2_TOTAL
KRUM FIRE DEPARTMENT	400 N. FIRST STREET	KRUM	TX	76249	0	0	0	2	0	0	0	2
CITY OF RALLS AMBULANCE SERVICE DBA	800 AVENUE I	RALLS	TX	79357	0	0	0	0	1	0	0	1
PALESTINE PRINCIPAL HEALTHCARE LP DBA	4000 SOUTH LOOP 256	PALESTINE	TX	75801	0	0	0	0	0	0	0	0
CITY OF SACHSE FIRE DEPARTMENT	2815 SACHSE RD BLDG D	SACHSE	TX	75048	0	0	0	2	0	0	0	2

- The Attribute Table widget displays a tabular view of operational layers' attributes. It displays at the bottom of your web app and can be opened, resized, or closed. When more than one layer's attributes display, multiple tabs automatically generate in the attribute panel allowing you to switch among the attribute tables.
  - Click the arrow button  at the bottom of the map to open the attribute table.
  - To close the attribute table, click the arrow button  at the top of the attribute table.
  - Go to the Layers widget and click to open the Layer List menu and click View in Attribute Table.



- **Select a record**—click a record in the table to select it and highlight the corresponding feature in the map with the color specified in the Attribute Table widget configuration window. Double-clicking a field in the selected record zooms to the feature on the map. Press the Shift or Ctrl key to select multiple records.
- **Clear selections**—click the **Clear Selection** button to clear all selections.
- **Zoom to selected features**—click Zoom to reset the map extent to center around selected features.
- **Copy the field value**—double click the field value to highlight it, and right-click it to copy the value.
- **Refresh**—click Refresh to refresh the table.
- **Sort a field**—click a field heading to sort the records by this field.


**Show or hide columns**—click the plus button on the right side of the attribute table panel to open the field visibility window. Check or uncheck the fields to set them to visible or invisible in the table.

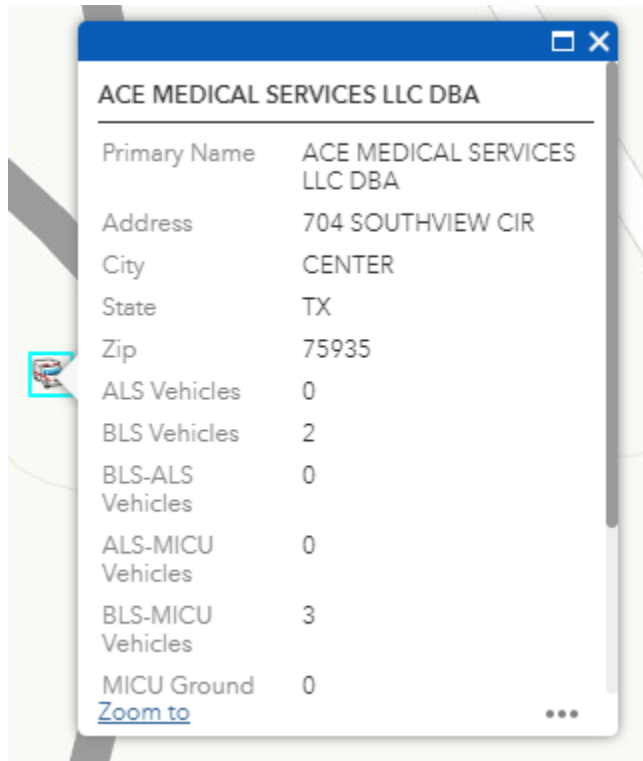



- **Number of selected records**—shown at the lower left of the table.
- **Options are as follows:**
  - Show Selected Records—displays selected records.
  - Show Related Records—displays related records if a selected record has a related table.
  - Filter—filters records in the table.
  - Filter by Map Extent—displays attributes for features within the current map extent.
  - Show or Hide Columns—Equivalent to clicking the plus button on the right side of the panel to set visibility for individual fields.
- Clicking a record in the table highlights associated features on the map, and vice versa.


## Map Symbol Feature Pop-ups



- This map symbol displays an ambulance (EMS provider). There are many map symbol feature pop-ups within this app. The pop-ups will all work very similar.
  - Click a map symbol  and a pop-up window will appear displaying related information to the selected map symbol.



- Map symbol pop-up links:
  - **Zoom to**—click the 'Zoom to' link to zoom into the water body.
  - Click the three dots  on the lower right side of the pop-up to display a menu with options:
    - Pan to—click 'Pan to' to pan or center the fish symbol selected on the screen.
    - Add a marker—click 'Add a marker' to add an additional marker on the map.
    - View in Attribute Table—click 'View in attribute table' to display the selected water body attributes in the attribute table.

- Click the three dots  on the lower right side of the pop-up to display a menu with options:
  - Pan to—click 'Pan to' to pan or center the fish symbol selected on the screen.
  - Add a marker—click 'Add a marker' to add an additional marker on the map.
  - View in Attribute Table—click 'View in attribute table' to display the selected water body attributes in the attribute table.

## **References**

1. Environmental Systems Research Institute (ESRI). ArcGIS Online, Web AppBuilder for ArcGIS. <http://doc.arcgis.com/en/web-appbuilder/> (Accessed October 17, 2018).