

# Galveston Bay Estuary Program (GBEP) Implementation Tracking Viewer User Guide

## Application Overview

The [Galveston Bay Estuary Program](#) (GBEP) Implementation Tracking Viewer displays GBEP projects, which have been funded in part by Clean Water Act Section 320 funds from the Environmental Protection Agency, in addition to projects lead by GBEP's local, state, and regional partners. Users can access details on how individual projects implement the actions found in [The Galveston Bay Plan, 2nd Edition](#). Users can also explore approximate project locations in relation to data sets such as legislative districts and land cover.

Project locations are not meant to be exact, as projects can cover large areas and often comprise multiple sites. The GBEP and partner projects presented are not intended to be a comprehensive list of all projects implementing *The Galveston Bay Plan, 2nd Edition*. GBEP updates the GBEP Projects, GBEP Partner Projects, and GBEP Subwatersheds data sets quarterly at minimum. All other data sets within the GBEP Implementation Tracking Viewer are updated and maintained by other groups.

This map was generated by GBEP, part of the Water Quality Planning Division of the Texas Commission on Environmental Quality. This product is for informational purposes and may not have been prepared for or be suitable for legal, engineering, or surveying purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of property boundaries. For more information concerning this map, contact GBEP at (281)218-6461.

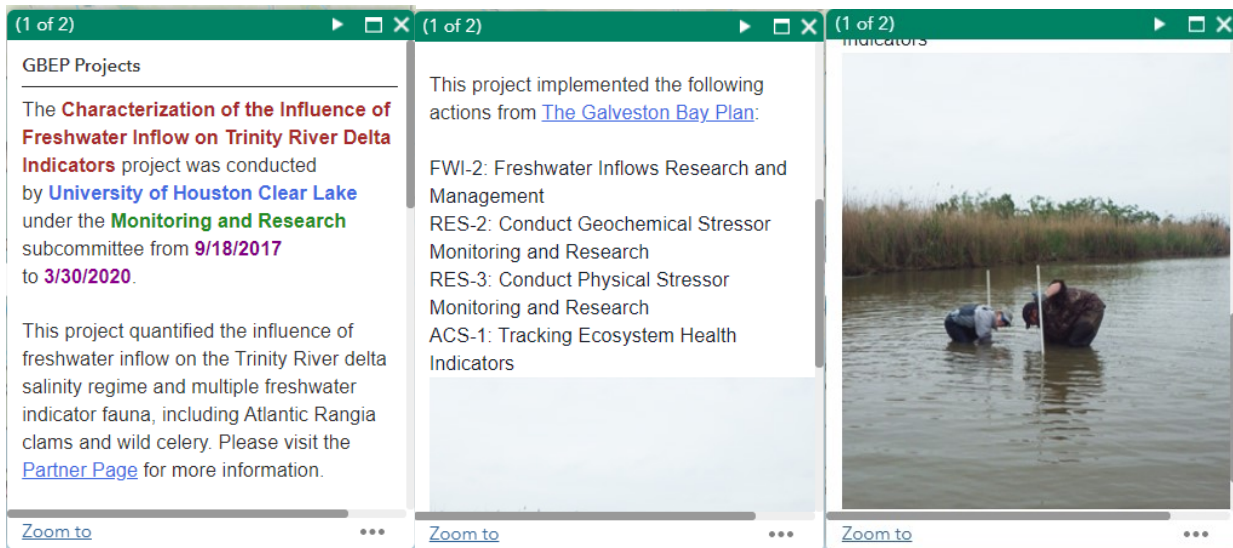
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# Navigating Around the Map

## Popups:


When a project, watershed protection plan, or surface water quality segment is clicked, a popup window will appear with information. Project popups include (as applicable) information on the project title (red text), lead partner/contractor (blue text), subcommittee (green text), project dates (purple text), weblinks, a project description, and actions implemented from *The Galveston Bay Plan, 2<sup>nd</sup> Edition* (GBEP Projects from 2018-present and all GBEP Partner Projects).



## Main Toolbar:

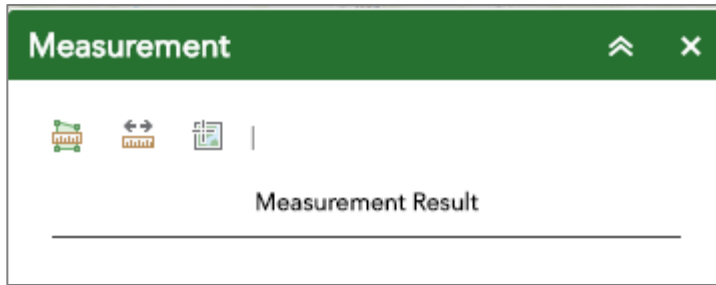







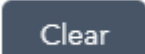
### Measure

- The Measure tool enables the user to measure point, linear, and area features on the map.
- To measure a feature, click on the **Measure**  tool on the main toolbar.




- The Measure window will appear as shown below.



- To close the window, click the  in the upper right-hand corner. To collapse the window, click the  just to the left of the close button.
- There are three different ways to measure features on the map:
  -  **Area** - Click this button, choose a unit of measure from the drop-down list, then single-click the first point of your polygon on the map. Continue to single-click until you have finished measuring your area feature. Double-click to end. Results will appear in the Measure window.
  -  **Distance** - Click this button, choose a unit of measure from the drop-down list, then single-click the first point of your line on the map. Continue to single-click until you have finished measuring your linear feature. Double-click to end. Results will appear in the Measure window.
  -  **Location** - Click this button, choose a unit of measure from the drop-down list, click a point on the map and then move the mouse across the map. Results will display the coordinates for both the green indicator and cursor.
- To clear your measurement results, click the  button.



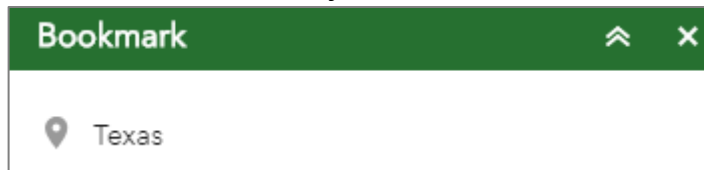
## Bookmarks

- The **Bookmark** tool can be used to view or add a particular map extent (or zoom area).
- To **add** a bookmark, click on the Bookmark tool  in the main toolbar, then click on the Add button. To **view**, click on a created bookmark.






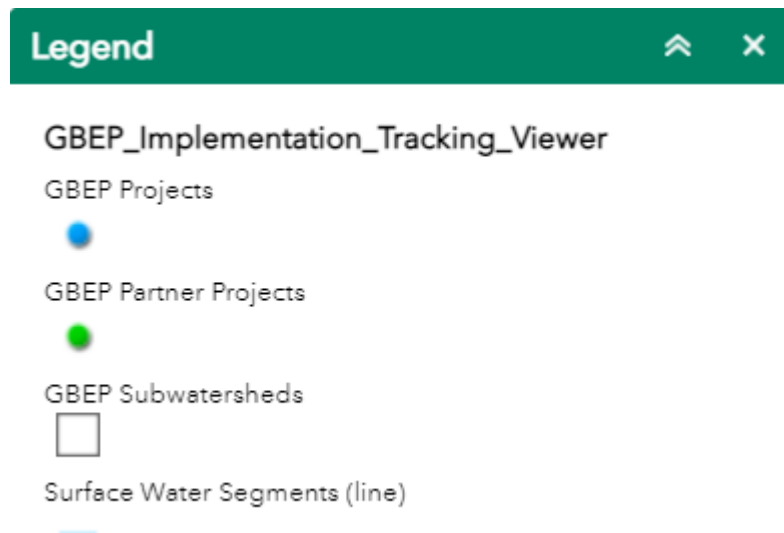
- To close the window, click the  in the upper right-hand corner. To

collapse the window, click the  just to the left of the close button.



## Legend

- The **Legend** tool shows the symbology for the selected layers that are set using the layers tool.
- Simply click the **Legend** button  in the main tool bar.
- To close the window, click the  in the upper right-hand corner. To collapse the window, click the  just to the left of the close button.
- The legend will only show those layers that are currently turned on using the layers tool.



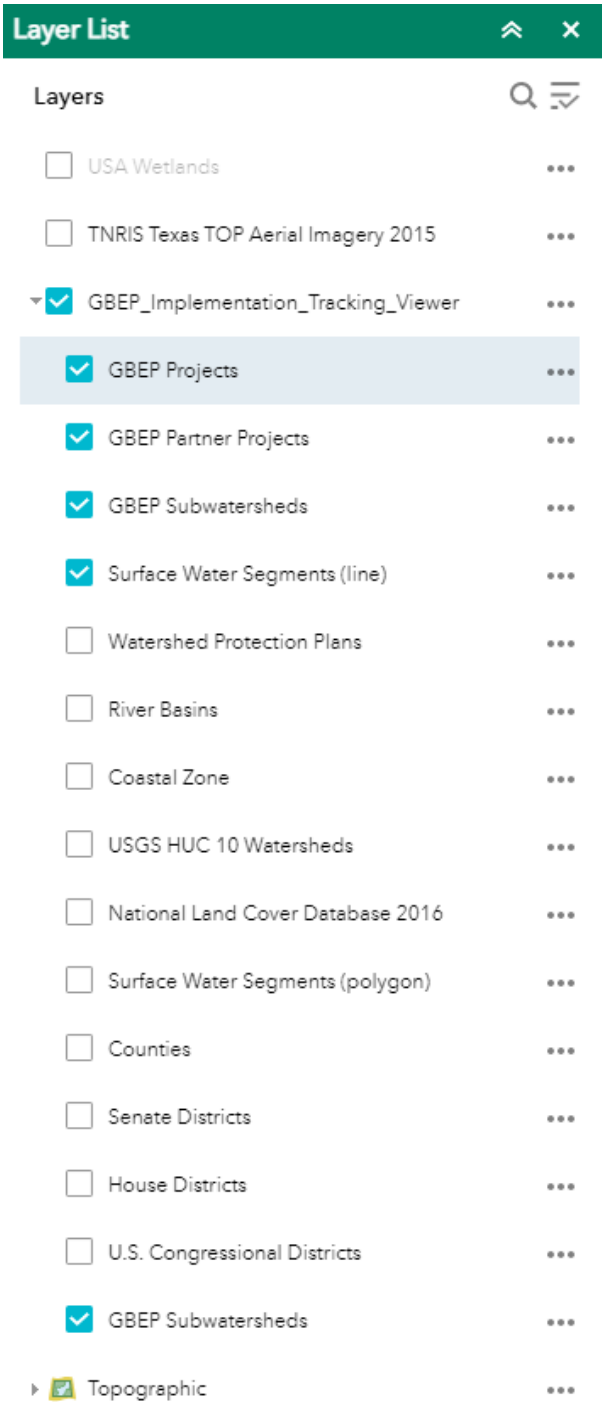
## Layers

- The **Layers** tool can be used to turn data layers on and off.
- Simply click the **Layers** button  in the main tool bar, then check or

uncheck the data layers you would like to see.



- To close the window, click the  in the upper right-hand corner. To collapse the window, click the  just to the left of the close button.




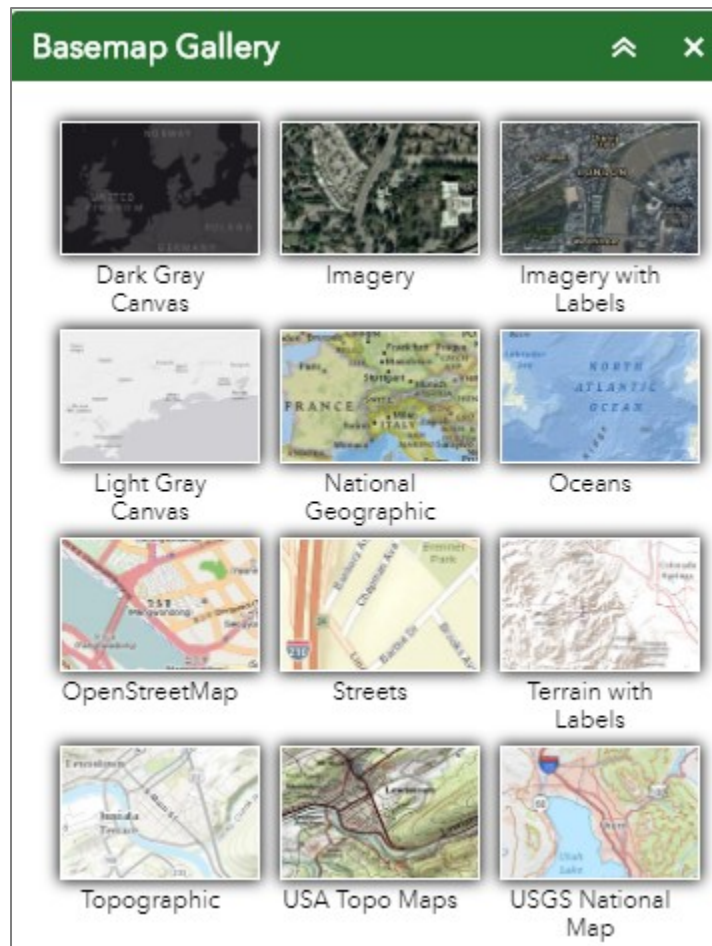
Layers	Search	Filter
<input type="checkbox"/> USA Wetlands		...
<input type="checkbox"/> TNRIS Texas TOP Aerial Imagery 2015		...
<input checked="" type="checkbox"/> GBEP_Implementation_Tracking_Viewer		...
<input checked="" type="checkbox"/> GBEP Projects		...
<input checked="" type="checkbox"/> GBEP Partner Projects		...
<input checked="" type="checkbox"/> GBEP Subwatersheds		...
<input checked="" type="checkbox"/> Surface Water Segments (line)		...
<input type="checkbox"/> Watershed Protection Plans		...
<input type="checkbox"/> River Basins		...
<input type="checkbox"/> Coastal Zone		...
<input type="checkbox"/> USGS HUC 10 Watersheds		...
<input type="checkbox"/> National Land Cover Database 2016		...
<input type="checkbox"/> Surface Water Segments (polygon)		...
<input type="checkbox"/> Counties		...
<input type="checkbox"/> Senate Districts		...
<input type="checkbox"/> House Districts		...
<input type="checkbox"/> U.S. Congressional Districts		...
<input checked="" type="checkbox"/> GBEP Subwatersheds		...
<input checked="" type="checkbox"/> Topographic		...


- Collapse and expand layers containing sublayers by clicking the small arrow to the left of the check box.
- Click the three dots to the right to set the drawing order (not available among sublayers) and view the attribute table.



## Basemap

- The **Basemap** tool can be used 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.




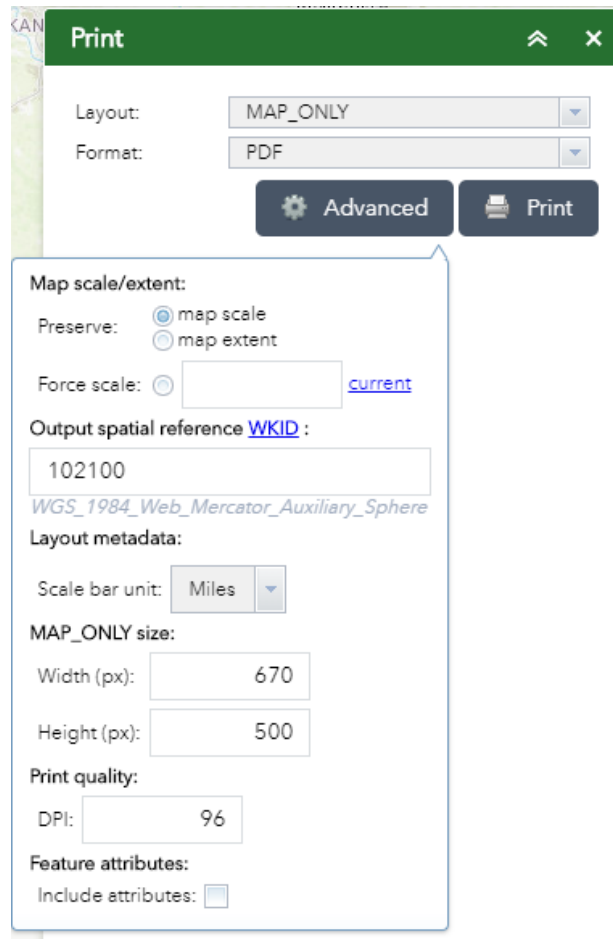
- To close the window, click the  in the upper right-hand corner. To collapse the window, click the  just to the left of the close button.

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



## Print

- Use the **Print** tool to save the current map to an image or pdf file. You may give it a customized title, select a layout and size, and format. Advanced features include ability to set map scale, pixel dimensions, and DPI.
- To use, click the **Print** button  in the main tool bar.

A screenshot of the 'Print' dialog box. The dialog has a title bar with 'Print' and window controls. It contains several sections: 'Layout' and 'Format' dropdowns (set to 'MAP\_ONLY' and 'PDF' respectively), 'Advanced' and 'Print' buttons, 'Map scale/extent' options (radio buttons for 'map scale' and 'map extent', and a 'Force scale' field with a 'current' link), 'Output spatial reference WKID' (text field with '102100' and a link to 'WGS\_1984\_Web\_Mercator\_Auxiliary\_Sphere'), 'Layout metadata' (Scale bar unit dropdown set to 'Miles'), 'MAP\_ONLY size' (Width and Height text fields with values '670' and '500'), 'Print quality' (DPI text field with value '96'), and 'Feature attributes' (checkbox for 'Include attributes').

**Print**

Layout: MAP\_ONLY

Format: PDF

Advanced Print

Map scale/extent:

Preserve:  map scale  map extent

Force scale:  current

Output spatial reference [WKID](#) :

102100

*WGS\_1984\_Web\_Mercator\_Auxiliary\_Sphere*

Layout metadata:

Scale bar unit: Miles

MAP\_ONLY size:

Width (px): 670

Height (px): 500

Print quality:

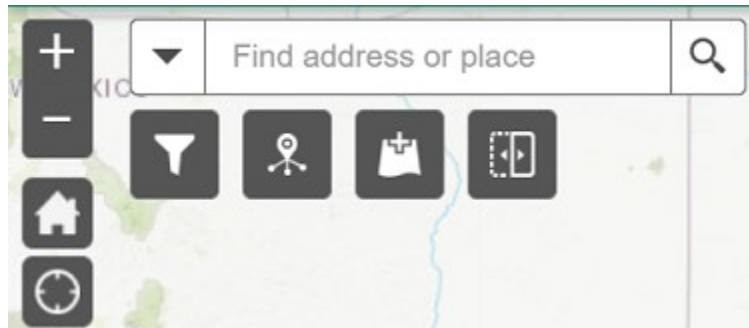
DPI: 96


Feature attributes:

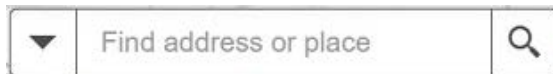
Include attributes:



## Analysis, Search, Filter and Navigation Tools:





 **Search Bar** – Type in an address, place, or project into the search bar. As you type, you will be presented with potential matches. If you see your desired match appear, simply click on it and the map will zoom to that location. Or you can complete typing in the location and then press Enter on the keyboard or click the magnifying glass. You can click the X on the bar to clear out the search bar.




The following are examples of the types of searches you can perform.


- Addresses: 17041 El Camino Real, Houston, TX, 77058
- Names of places or projects: Houston Zoo, Cedar Bayou, Trash Bash



 **Zoom In** – Click this button once or multiple times to **zoom in** at fixed increments. You can also use the scroll wheel on your mouse or the plus (+) key on your keyboard.

 **Zoom Out** – Click this button once or multiple times to **zoom out** at fixed increments. You can also use the scroll wheel on your mouse or the minus (-) key on your keyboard.

 **Home** – Click once to return to the default extent.

 **My Location** – Clicking this button will take you to your current location.

 **Projects Filter** – Click to filter GBEP Projects by subcommittee, status, or contractor and GBEP Partner Projects by lead partner.

- Select the criteria for your filter using one to three of the dropdown lists for GBEP Projects and one dropdown list for GBEP Partner Projects.
- Once criteria are selected, toggle the filter on for each layer by clicking .
- The projects in the map will be filtered to meet the criteria.
- To disable the project filters, toggle the filter off for each layer by clicking .
- To expand the window, select the bottom right corner of the window and drag.

### Projects Filter ✕

GBEP Projects

▼ ● GBEP Projects ⏻

Subcommittee is

- empty -

Status is

- empty -

Contractor is

- empty -


GBEP Partner Projects

▼ ● GBEP Partner Projects ⏻


Lead is

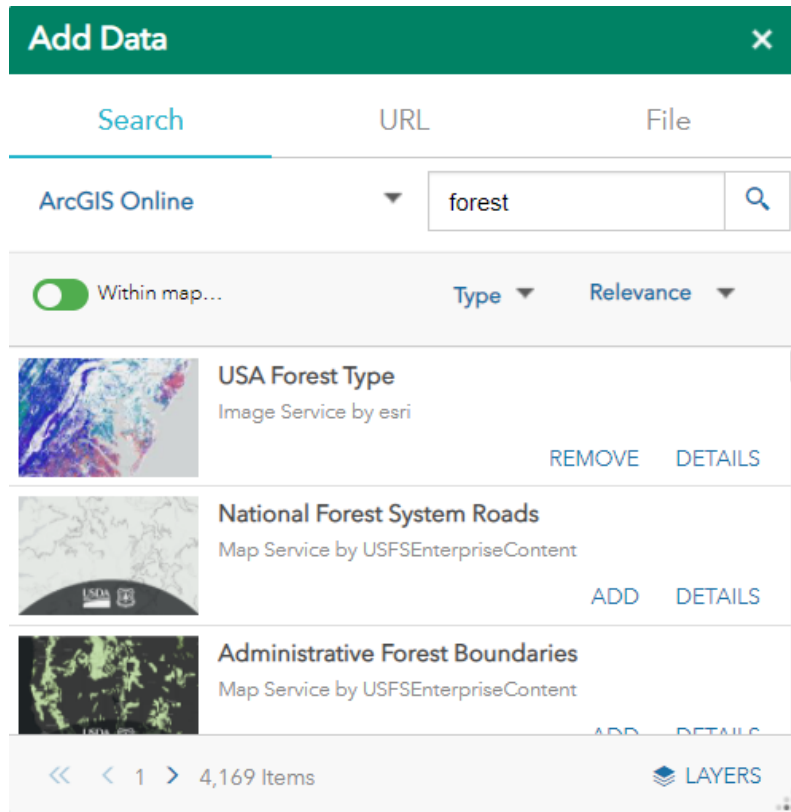
- empty -



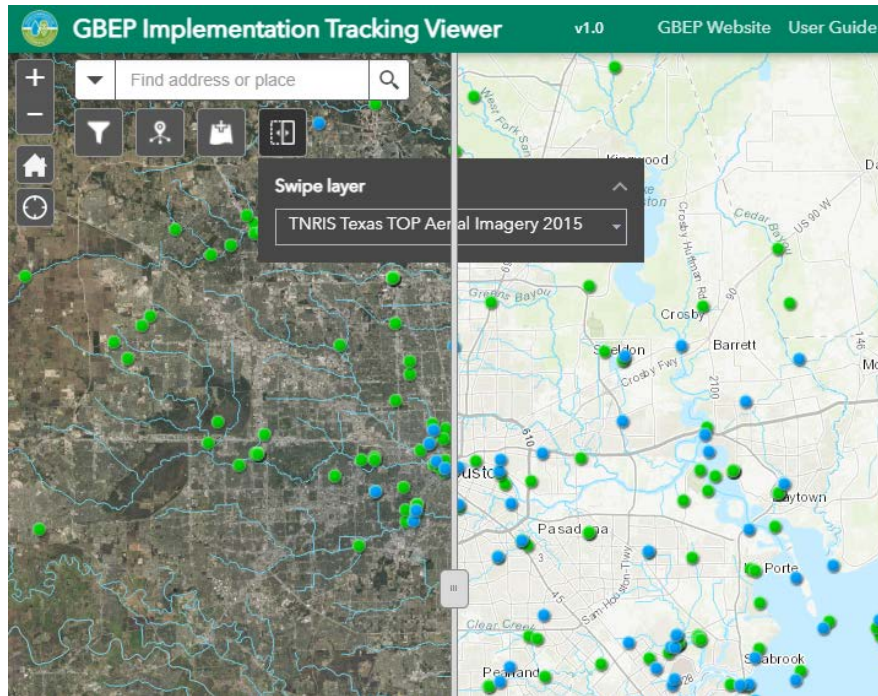
**Projects Summary** – Click to view a summary of the GBEP Projects and GBEP Partner Projects layers displayed within the current map view. The number of visible features for each layer will be displayed on the right. The number is filtered by the current map extent and any other filters that may have been applied. Click the down arrows  to view project titles, contractors/partners, and project descriptions. The default setting is to filter by map extent, so the project counts will only include those features currently visible in the viewer due to zooming in or out or applying filters.



**Add Data** – Click to add publicly available layers from ArcGIS Online or external websites, or user-owned GIS layers. Layers added to the viewer using the **Add Data** tool will be removed when the viewer is closed and will not appear when the viewer is opened again. To search publicly available layers on ArcGIS Online, select the “Search” tab, then select “ArcGIS Online” from the drop-down menu. In the search bar, enter the name of the layer you are searching for (e.g., “forest”) or layer author (e.g., ESRI). To add a layer from your computer, select the “File” tab. By default, user-added layers will draw on top of the existing layers. To move the layer under the project points, click the Layers button  in the main tool bar, click the three dots to the right of the added layer, and select “Move down”.




**Swipe** – The swipe tool allows the user to see underneath the “USA Wetlands”, “TNRIS Texas TOP Aerial Imagery 2015”, or “EPA EJSCREEN” layers. First, ensure that one of these layers is enabled by checking the box for that layer in the Layer List. When you click the swipe tool, a drop-down menu and vertical bar will appear. Click the drop-down menu to ensure that the layer you would like to swipe is selected. Select the bar and move from left to right to see the layers underneath. Click the swipe tool again to turn it off.


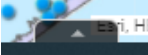



### Coordinate Indicator:

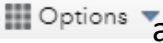
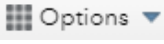
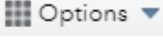
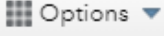


- Click the **Coordinate Indicator**  tool located on the bottom left of the viewer, then click anywhere on the map to obtain the coordinates in decimal degrees.
- The tool will also show the coordinates of your current mouse position over the map.

### Attribute Tables:

- To view the attribute table for a specific layer, click on the **Layers**  button in the main tool bar, then click the three dots to the right of the layer of interest. Tables can be sorted by clicking on a column header, then selecting "Ascending" or "Descending".
- Alternatively, if you wish to view all of the available attribute tables, click on the arrow  at the bottom of the viewer.
- The default setting is to filter by map extent, so the attribute tables will only show those features currently visible in the viewer due to zooming in or out or applying filters. Keep in mind that expanding the table view will obscure

some features on the viewer, and those features will not be listed in the attribute table. To disable this setting, deselect the  button on the attribute table tool bar.

- Relationships between projects and actions of *The Galveston Plan, 2<sup>nd</sup> Edition* can be explored in the attribute tables.
  - To view related actions for a project or set of projects:
    - Select and highlight the project row(s) in the GBEP Projects or GBEP Partner Projects attribute table. Hold down the ctrl key to select multiple rows.
    - Select the  arrow, select “Show Related Records”, then select “Galveston Bay Plan Actions”. The actions attribute table will open, displaying only those actions implemented by the selected project(s). Keep in mind that while all GBEP Partner Projects are associated with actions, only GBEP Projects from 2018 (when *The Galveston Plan, 2<sup>nd</sup> Edition* draft was published) to present are associated with actions.
    - To clear the filter and show all actions in the table, select the  arrow, then select “Show all records”.
  - To view projects associated with a particular action or set of actions:
    - Select and highlight the action row(s) in the Galveston Bay Plan Actions attribute table. Hold down the ctrl key to select multiple rows.
    - Select the  arrow, select “Show Related Records”, then select “GBEP Projects” or “GBEP Partner Projects”. The projects attribute table will now only display projects that implement the selected action(s).
    - To clear the filter and show all projects in the table, select the  arrow, then select “Show all records”.

### **Submit a Project:**

- If you are involved with a project that implements actions from *The Galveston Bay Plan, 2<sup>nd</sup> Edition* that you think should be included in the GBEP

Implementation Tracking Viewer, please submit information about the project to GBEP using the “Submit a Project” link located on the main tool bar.

## **Contact Us**

[gbep@tceq.texas.gov](mailto:gbep@tceq.texas.gov)

(281)218-6461