



User Guide

New Mexico Vegetation Treatments Web Application

www.vegetationtreatments.org

Many functions and tools exist within the New Mexico Vegetation Treatments Web Map Application which can help the user get the most out of the data and capabilities of the application. Below is a list and short description of each widget on the Web App. Click the hyperlinks for in-depth instructions on how to use tool.

About widget	The About widget displays a description of the app.	
Add Data widget	The Add Data widget allows you to add data to the map by searching for layers in ArcGIS Online or uploading your own local files.	
Attribute Table widget	The Attribute Table widget displays a tabular view of operational layers' attributes. It displays at the bottom of your web application and can be opened, resized, or closed.	
Basemap Gallery widget	The Basemap Gallery widget presents a gallery of basemaps and allows you to select one from the gallery as the basemap for your app.	
Group Filter widget	The Group Filter widget allows you to apply a filter on the map based on one or more layers in the map.	
Infographic widget	The Infographic widget allows you to visualize and monitor attributes and statistical data in the map	
Layer List widget	The Layer List 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 easily control its visibility.	
Legend widget	The Legend widget displays labels and symbols for layers in the map. The Legend widget is set to automatically update when the visibility of a layer or sublayer changes.	
Measurement widget	The Measurement widget allows you to measure the area of a polygon, length of a line, or find the coordinates of a point.	
Print widget	The Print widget connects the web app with a printing service to allow the current map to print.	
Query widget	The Query widget allows you to retrieve information from source data by executing one or several queries.	
Report widget	The Report widget allows you to define an area of interest and analyze specified layers. The area of interest can be defined by drawing on the map or by uploading a shapefile. Analysis results can be inspected in the widget and, optionally, shared via a printed report, CSV file download, or feature download.	
Search widget	The Search widget enables end users to find locations or search projects by name on the map.	
Select widget	The Select widget enables you to interactively select features on the map and take actions on the selected features. The selected features can be passed on to other widgets as input, such as the Attribute Table widget.	
Share widget	The Share widget allows you to share an app by posting it to your social media account, sending an email with a link, or embedding it in a website or blog.	

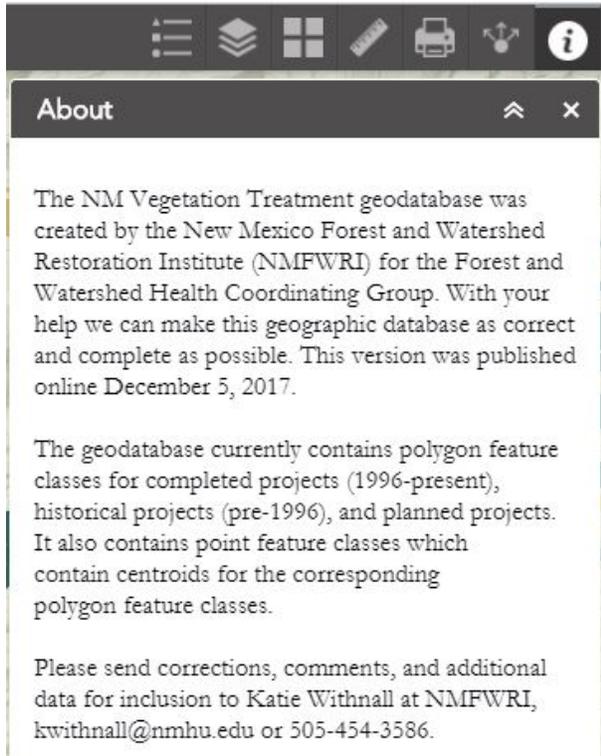
For technical support on how to use this app or other questions not contained in this document please contact Katie Withnall at NMFWR at kwithnall@nmhu.edu or 505-454-3586.

About widget

The About widget displays information about the app.

Using the About widget

1. Click the About widget icon to display a description of the app.



2. Close the widget or click the double arrow to hide the content.

Add Data widget

The Add Data widget enables you to add data to the map by searching for layers in ArcGIS content or uploading local files. In this way, you can temporarily add layers to and remove layers from the map. However, you can't save the layers to the map.

Using the Add Data widget

- 1) In the Add Data window, search for the data you want to add to the map. Click Add on the specific item.
- 2) The added layer will appear in the Layer List widget as well. Click Remove to remove the layer from the map and the Layer List widget. Click Details to get information about the layer.

- To search only layers within the map area, leave the toggle button Search within the map area green, which is the default. To search all layers in the scope, click the toggle button, which turns it red.
 - Click the sort button Search layer **type** and item sorting to refine the type of search layer and sort the items.
 - Click the Type drop-down list to search layers based on type, including map service, feature service, image service, vector tile service, and KML, WMS, WFS, and WMTS layers.
 - Click the **Sort By** drop-down list to sort items by relevance, title, owner, rating, view, or date.
- 3) Click the File tab to upload supported local files. You can either drag the file or browse to it.
- You can upload local files in the following format:
 - CSV
 - GPX
 - GeoJSON
 - KML
 - Shapefile
- 4) To remove the layers you added, click Layers in the lower right corner of the widget. In the Layers panel, click the Remove Layer button Remove layer next to the layer to remove it.

Attribute Table widget

The Attribute Table widget displays a tabular view of operational layers' attributes. It displays at the bottom of your web application 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.

Using the Attribute Table widget

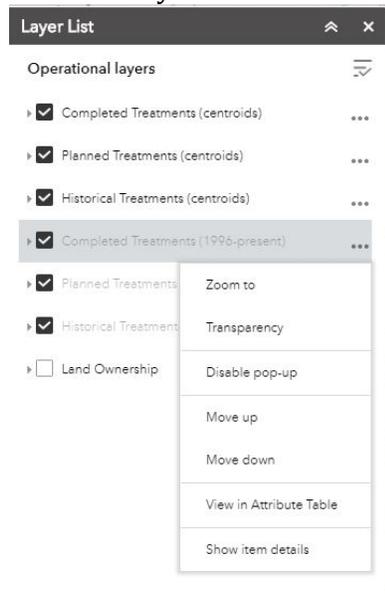
- Options to turn on and off the attribute table are as follows:
 - To turn it on, click the arrow button at the bottom of the map.
 - To turn it off, click the arrow button at the top of the attribute table or click the X at the upper-right of the table.



Completed Treatments (1996-present) Planned Treatments Historical Treatments (pre-1996)											
Options Filter by map extent Zoom to Clear selection Refresh											
Year (Calendar)	Name of Treatment	Land Owner	Status Project	Partners in accomplishing work	Treatment Type	Treatment Description	Target Species or Existing Veg	Agency	Acre (US)	Funding	RETREATMENT
2015	EQIP	Tribal	Completed	NRCS CUBA	Physical	Lop And Scatter After Las Conchas Fire Burned It	Ponderosa, Douglas Fir, White Fir, Pinon, Juniper	NMSF	1.35	needs input	
2015	15-01-1215	Private	Completed	NM State Forestry, SJSWCD	Physical	Removal, Mastication	Riparian Bosque	NMSF	5.42	needs input	
2015	15-01-1224	Municipal	Completed	NM State Forestry, SJSWCD, FARMINGTON	Physical	Removal, Mastication	Riparian Bosque	NMSF	0.87	needs input	
2015	15-01-1224	Municipal	Completed	NM State Forestry, SJSWCD, FARMINGTON	Physical	Removal, Mastication	Riparian Bosque	NMSF	1.00	needs input	

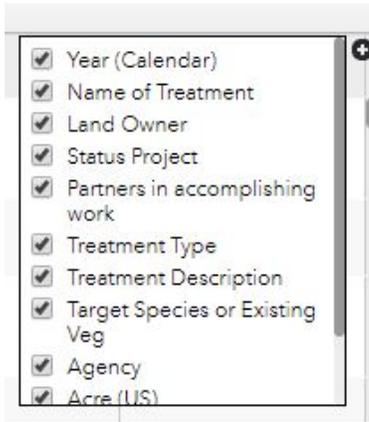
7379 Features 0 selected

- Go to the Layer List menu and click **View in Attribute Table**.



- Select a record—Clicking a record in the table selects it and highlights the corresponding feature in the map with the color specified in the Attribute Table widget configuration window. Double clicking any fields in the selected record will zoom to the feature on the map. Press the Shift or Ctrl key to select multiple records.
- Clear selections—Clicking the **Clear Selection** button clears all selections.
- Zoom to selected features—Clicking Zoom to resets the map extent to center around selected features.

- Copy the field value---Double clicking the field value to highlight it, then right clicking it to cope the value.
- Refresh—Clicking Refresh refreshes the tables.
- Sort a field—Clicking a field heading sorts the records by this field.
- Show or hide columns—Clicking the + icon on the right side of the Attribute Table panel opens the field visibility window. Check or uncheck the fields to set them to visible or invisible in the table.



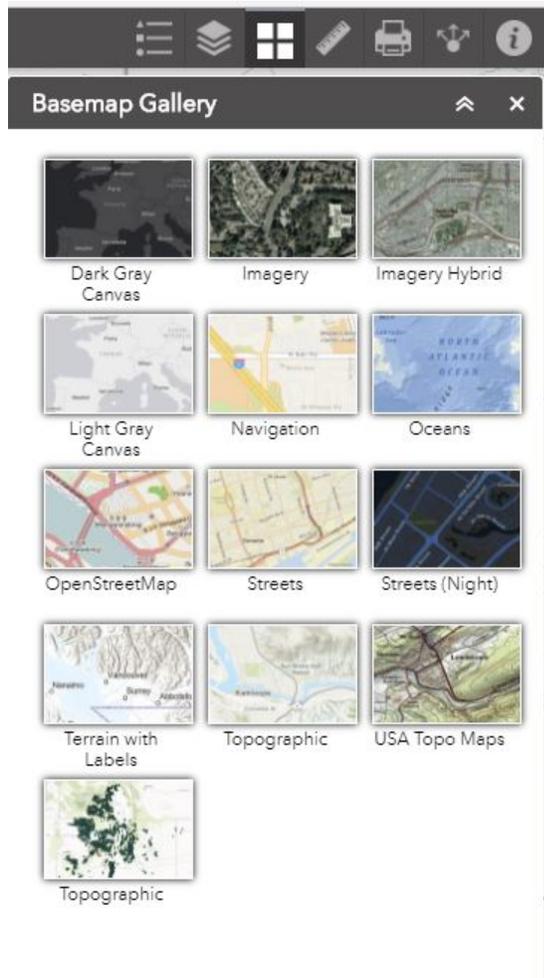
- Number of selected records—Shown on the lower left of the table.
- Options are as follows:
 - **Show Selected Records**—Only displays selected records.
 - **Show Related Records**—Displays related records if a selected record has related table.
 - **Filter**--Allows to filter records in the table.
 - **Filter by Map Extent**—Only displays attributes for features within the current map extent.
 - **Show or Hide Columns**—Equivalent to clicking the + icon on the right side of the panel to set visibility for individual fields.
 - **Export to CSV**—Exports the attributes to a CSV file. The X, Y coordinates are included for the point feature layer and keep the same spatial reference as the data regardless the map projection. If records are selected, only the selected records are exported. If no records are selected, all the records are exported. To support this function, the Export Data property must be enabled for the corresponding feature service.
- Clicking a record in the table highlights associated feature on the map, and vice versa.

Basemap Gallery widget

The Basemap Gallery widget presents a gallery of basemaps and allows you to select one from the gallery as the basemap for your app.

Using the Basemap Gallery widget

Clicking the Basemap Gallery widget displays all the basemaps configured for this widget. Clicking a basemap thumbnail sets it as the active basemap for the app. Click the X in the upper-right corner of the Basemap Gallery window to close it.



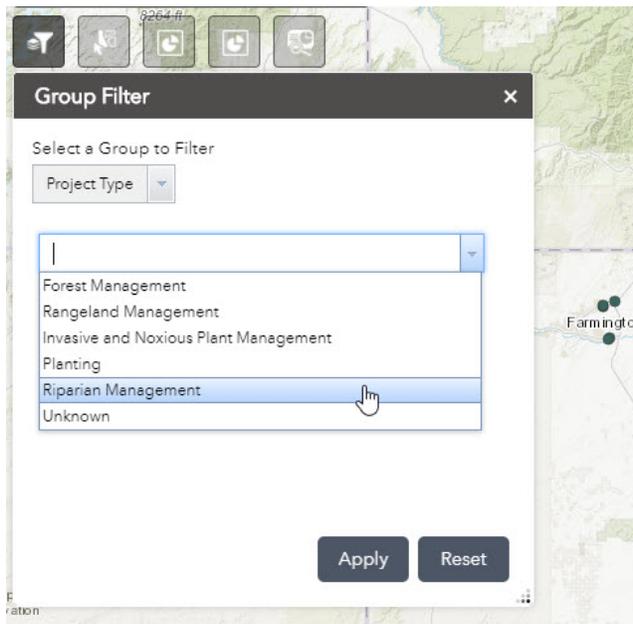
Group Filter widget

The Group Filter widget allows you to apply a filter on the map based on one or more layers in the map.

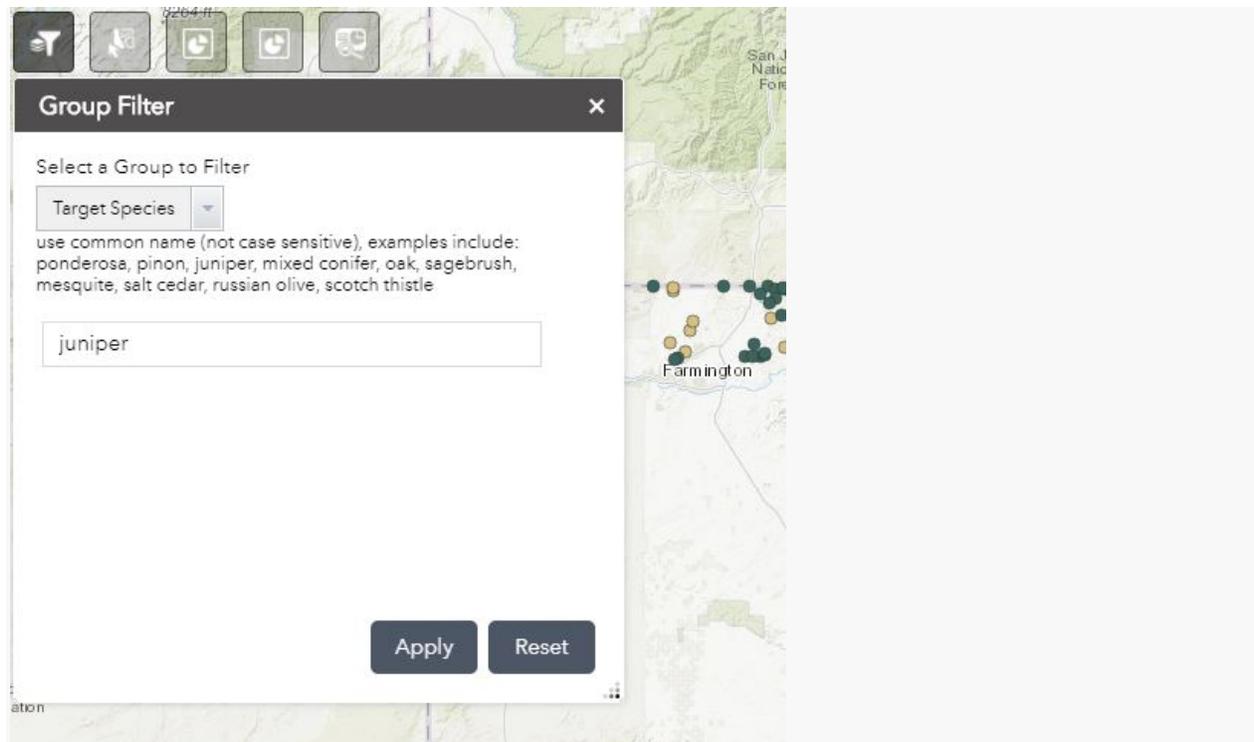
Using the Group Filter widget

1. Click the Group Filter widget to display a selection of predefined filter sets.

Notice that below predefined group is drop-down list or a text field. In this particular case, the map is filtered to show only Riparian Management Projects. You would click **Apply** to execute this setting.



Tip: Depending on the layer you choose to filter in the widget, you will either see a value drop-down list or a text box for user input. In the example below, the map is filtered to show any projects that include juniper. When searching for species use the common name (rather than latin names, or species codes).



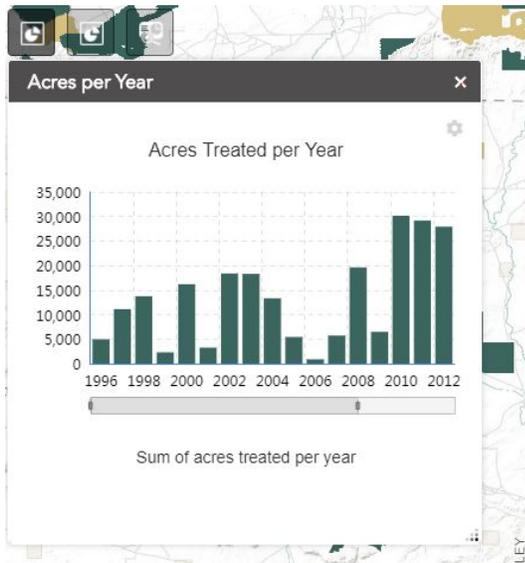
2. Click **Reset** to remove the filter and restore the map to its state prior to using the widget.

Infographic widget

The Infographic widget allows you to visualize and monitor attributes and statistical data in the map

Using the Infographic widget

Activate the Infographic widget in the app by clicking the widget icon.



- Both infographics are set to either display selected features or features within the map extent. In other words the number changes when features from the source layer are selected, or if nothing is selected the number will change to reflect the features within the current extent and will change when the map is panned or zoomed.
- The graph is updated when the data is refreshed.

Note:

You can also do the following with the chart templates:

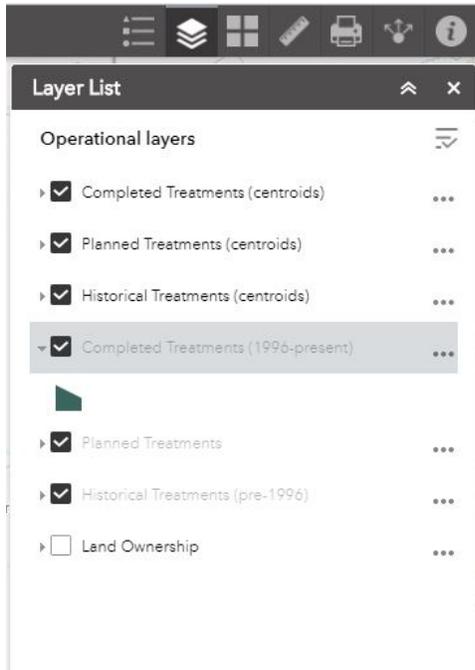
- Hover over individual pieces in the chart. The category and field values display, and the corresponding feature is highlighted on the map.
- Click the **Settings** button  to turn the legend, data labels, and axis on or off.

Layer List widget

The Layer List widget provides a list of operational layers and their symbols, and allows you to turn individual layers on and off.

Using the Layer List widget

1. Clicking the Layer List widget in your app displays the layer list or table of contents window.
2. Clicking an individual layer shows its symbols.



3. Clicking the down arrow on the right side of a layer displays the layer menu, which includes the following functions:
 - **Zoom To**—Sets the map extent to the extent of the layer.
 - **Transparency**—Sets the transparency for the layer.
 - **Enable Pop-up / Remove 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.

Note:

This is for end users to re-order the layers in the app. The order of layers will not be persisted.

- **Move down**—Moves the layer one level down.

Note:

This is for end users to re-order the layers in the app. The order of layers will not be persisted.

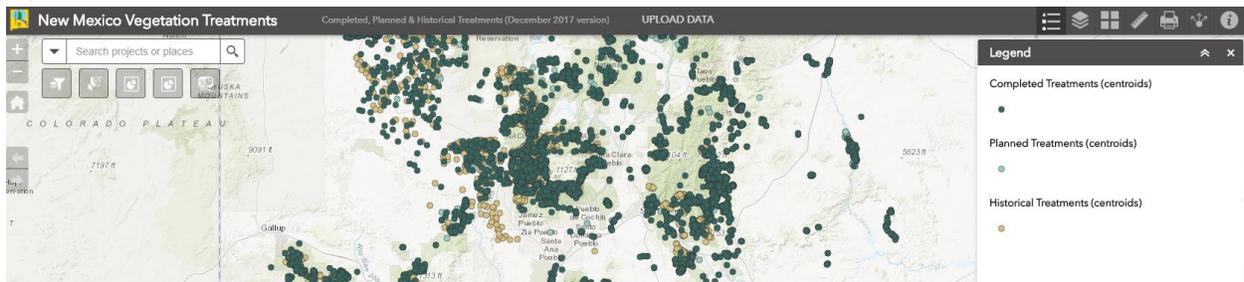
- **View in attribute table**—Opens the attribute table for the feature layer.
 - **Description / Show Item Details**—Opens the service description or the item details page for the service or the item associated with the layer, if available.
4. The **Control all layers** button  controls the behavior of all of the layers in the list. Click the icon to open the menu, which allows you turn on or off all the layers, or expand or collapse all the layers. Alternatively, you can use keyboard shortcuts to do so. Press Ctrl and click the check box of the layer to turn on or off the layers in the same level. Press Ctrl and click the arrow to expand or collapse layers in the same level.
 5. Layers are grayed out in the list when zoomed out of their visible ranges.
 6. Clicking the **X** button to close the **Layer List** window.

Legend widget

The Legend widget displays labels and symbols for layers in the map.

Using the Legend widget

When the application starts, the Legend widget is automatically enabled. Clicking the Legend widget displays the legend window. Clicking the **X** button in the upper right corner of the legend window closes it.



Measurement widget

The Measurement widget allows you to measure the area of a polygon, length of a line, or find the coordinates of a point.

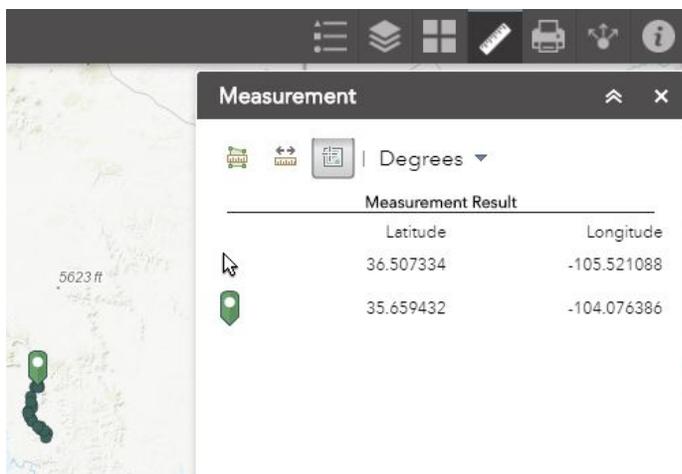
Using the Measurement widget

The Measurement widget allows you to measure the area of a polygon, length of a line, or find the coordinates of a point. Click the Measurement widget icon to open it.

Location measurements

1. Click the **Point measurement** button  and click a point on the map.

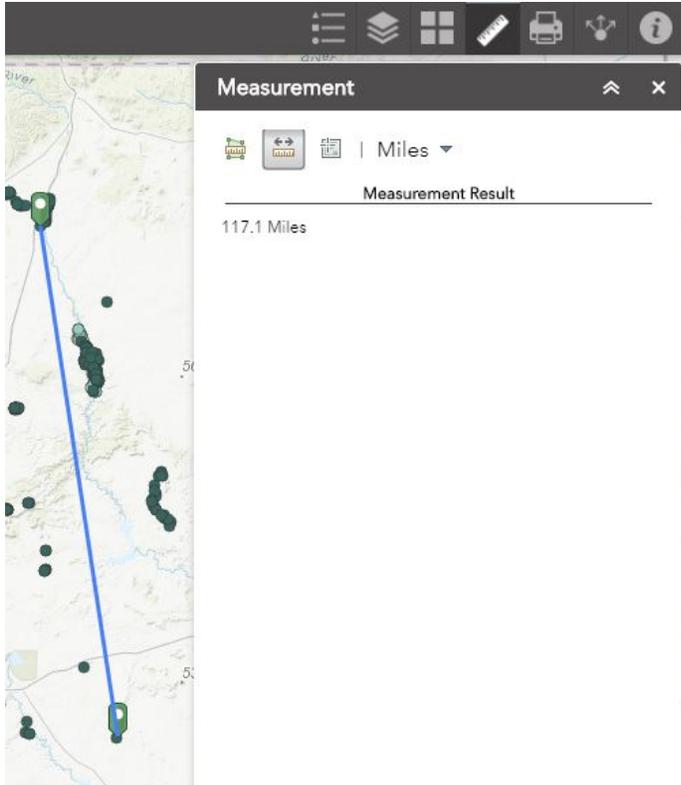
The Measurement widget displays the coordinates for the point in degrees (decimal). To change the coordinate display format to degrees/minutes/seconds, change the selection in the **Degrees** drop-down menu to **DMS**.



Polyline measurements

1. Click the **Polyline measurement** button .
2. Draw a polyline on the map by clicking two or more points.
3. Double-click to finish drawing the polyline.

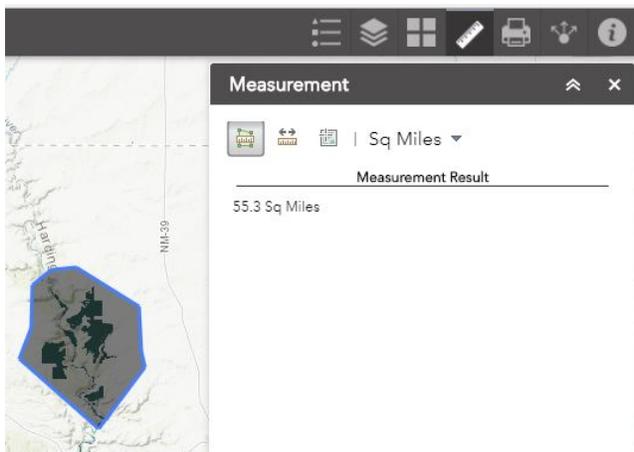
The Measurement widget displays the total length of the polyline using the defined **Default Length Unit**. To change the length unit, select the applicable unit of measure from the **Miles** drop-down menu.



Polygon measurements

1. Click the **Polygon measurement** button .
2. Draw a polygon on the map by clicking three or more points.
3. Double-click to finish drawing the polygon.

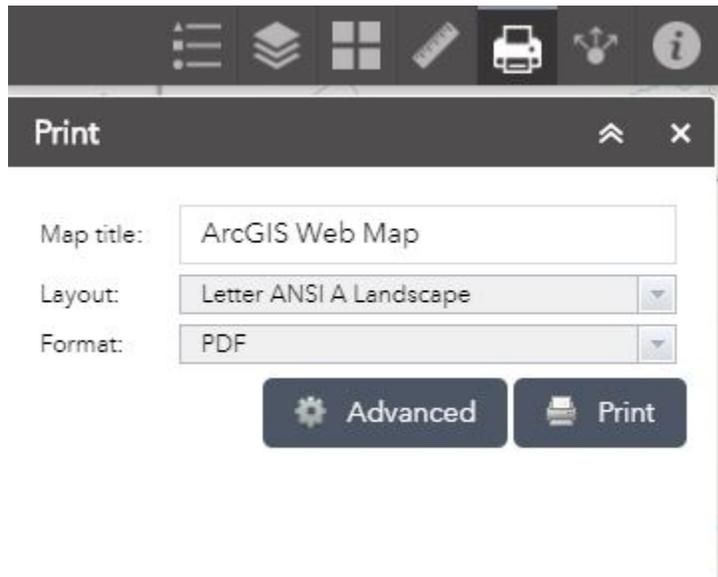
The Measurement widget displays the total area of the polygon using the defined **Default Area Unit**. To change the area unit, select the applicable unit of measure from the **Acres** drop-down menu.



Print widget

The Print widget connects the web app with a printing service to allow the current map to print.

Using the Print widget



1. Click the print icon to open the Print widget.
2. Type a title for the map in the **Map Title** text box.
3. Select the applicable **Layout** and **Format** for the exported map.

Note:

The **MAP_ONLY** format prints only the map, omitting any marginal information from the output.

4. Click **Advanced** to open a menu with advanced print options.

The **Map scale/extent** section defines the method that the print service will use 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 checking the **Force scale** option and providing a scale. Click **current** to populate the value with the present scale of the map.

The **Layout metadata** section allows you to override the default values set by the configuration. Enter values for the **Author** and **Copyright** properties to provide current information to the print service. Check the **Include legend** check box to display the legend on the printed map.

Note:

The Print widget supports custom text elements in the printing service published from ArcGIS Server 10.4. The layout options display based on the template's metadata.

If the **MAP_ONLY** format is selected, you can provide dimensions for the **Width** and **Height** properties in pixels. Otherwise, these values are ignored.

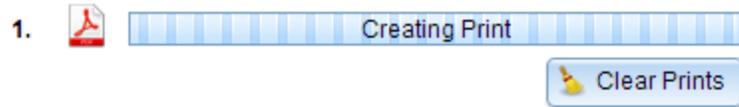
The **Print quality** section allows you to update the resolution of the printed map. Provide an updated value for the **DPI** (dots per inch) in the text box.

Note:

The widget supports custom text element as layout metadata if the custom task is named Get Layout Templates Info.

5. After all options have been set with the applicable values, click **Print** to submit all information to the print service.

A progress bar displays next to the executing task.



6. Upon completion of the print job, a link to the print output displays. Click the task to open the file in a new window.



7. Click **Clear Prints** to clear the print history.

Note:

The date and time format on the print out is based on where the user is located.

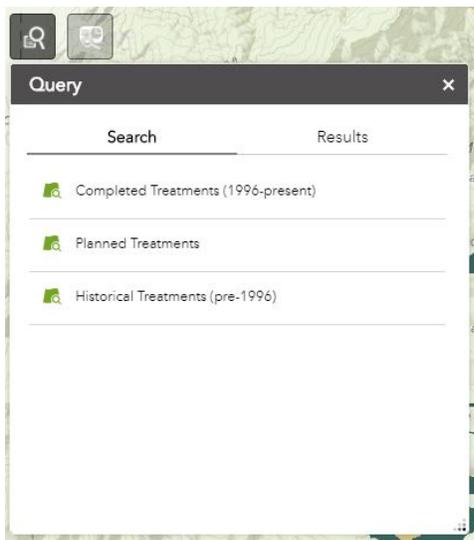
Query widget

The Query widget allows you to retrieve information from source data by executing a predefined query. Each query works with a single layer. However, you can define multiple criteria for each query.

Use the Query widget

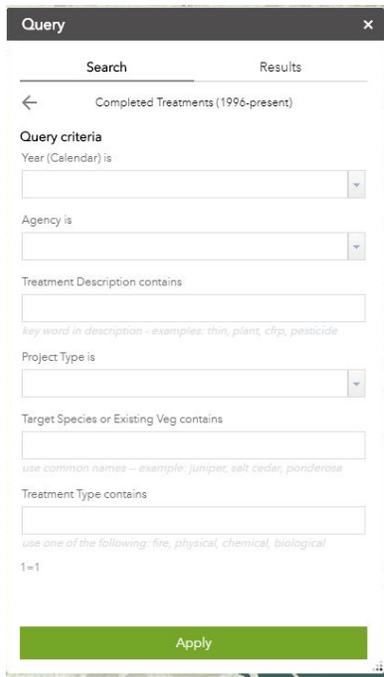
The following steps explain how to use the Query widget:

Click the Query widget to open it. A list of queries is shown on the **Search** tab.



Click one of the queries.

A text box displays prompting you for a new value for the parameter. If unique values are set, the text box will list them all. Fill out any combination of the query criteria. Leave blank any criteria you don't want to search. Year, Agency and Project type criteria contain drop down menus to select from. Treatment Description, Target Species and Treatment Type criteria contain text fields. Please see the "hint" examples below the field for instructions on what to enter.



1. Click Apply to run the query. Features resulting from the query are highlighted on the map. The Query tool automatically takes you to the Results tab.



2. Click the ellipsis (...) to take actions on the results set, such as running statistics, opening in the attribute table or changing the feature symbol.
3. Return to the Search tab to run another query.

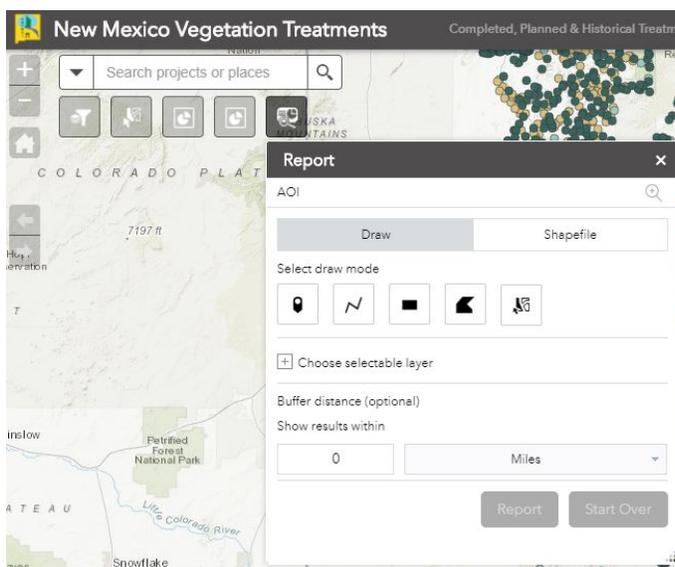
Report widget

The Report widget allows you to define an area of interest and analyze specified layers. The area of interest can be defined by drawing on the map or by uploading a shapefile. Analysis results can be inspected in the widget and, optionally, shared via a printed report, CSV file download, or feature download.

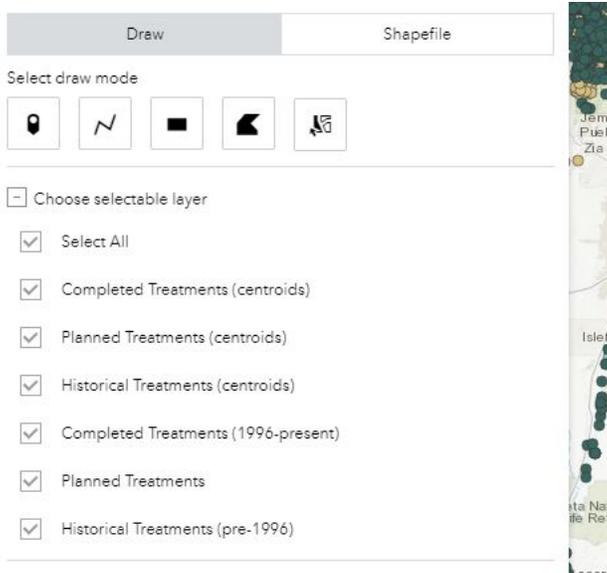
Using the Report widget

1. Click the Report widget icon to open it.

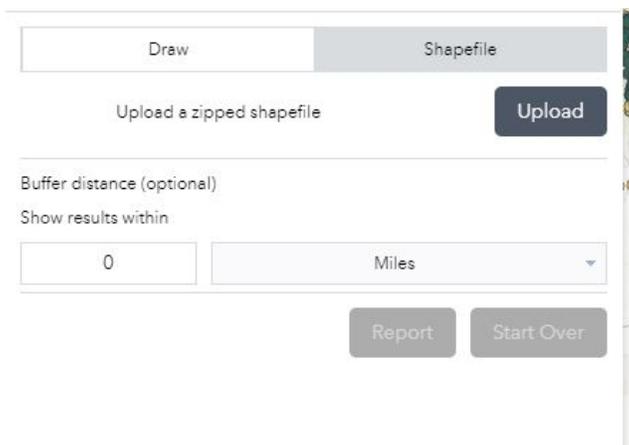
The widget displays on the left side of the map.



2. Define an area of interest with one of the provided tools.
 - o **Draw**—Draw a point, line, or polygon on the map or select a feature from the map, and optionally apply a buffer. Use the **Choose selectable layer** list to define which layers are selectable in the map.



- **Shapefile**—Upload a zipped shapefile, and optionally apply a buffer.



3. Define a buffer.
4. Click **Start Over** to remove the defined area of interest and create a new one.
5. Click **Report** to analyze the configured layers within the area of interest.

Analysis results are presented in the panel. Layers with data intersecting the area of interest report a total feature count, and results are presented by grouping unique attribute combinations with the following information:

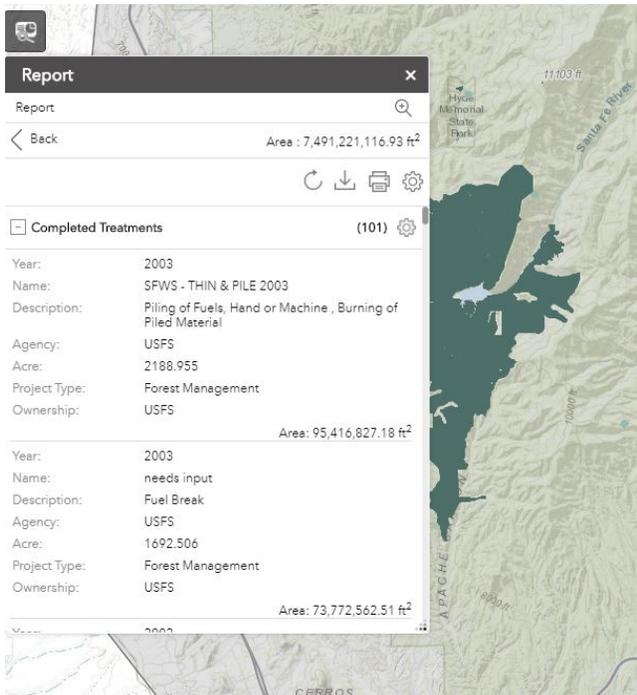
- Area of overlap when the area of interest is a polygon
- Length of overlap when the area of interest is a polygon

The areas and lengths are calculated by performing a clip analysis on the intersecting geometries in the coordinate system of the web map. If the underlying map or feature service has a spatial reference other than the web map's, the transformation of the data is

handled by the service. If the web map is using the Web Mercator coordinate system, all geometry operations are performed using geodesic lengths and areas; otherwise planar lengths and areas are used.

Explore the results

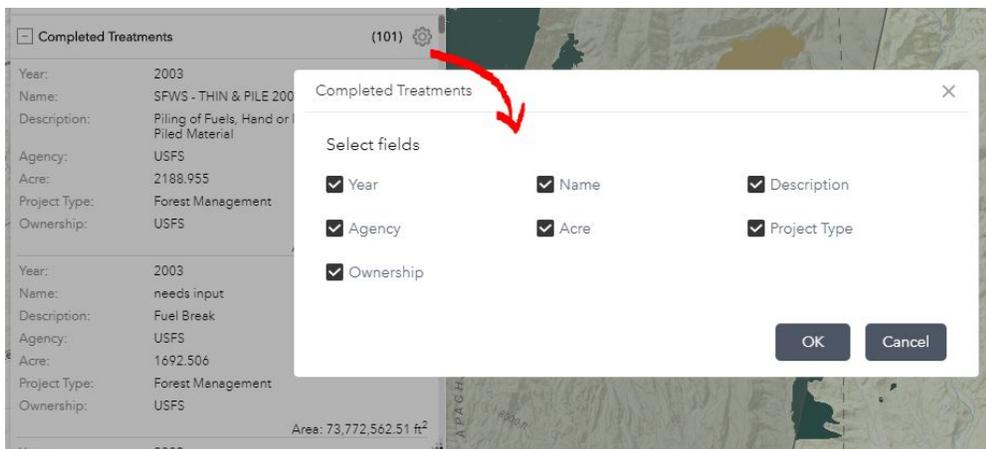
1. Expand the result details by clicking a layer. The layer details expand:



2. Click the settings button to choose which fields are presented with the results.

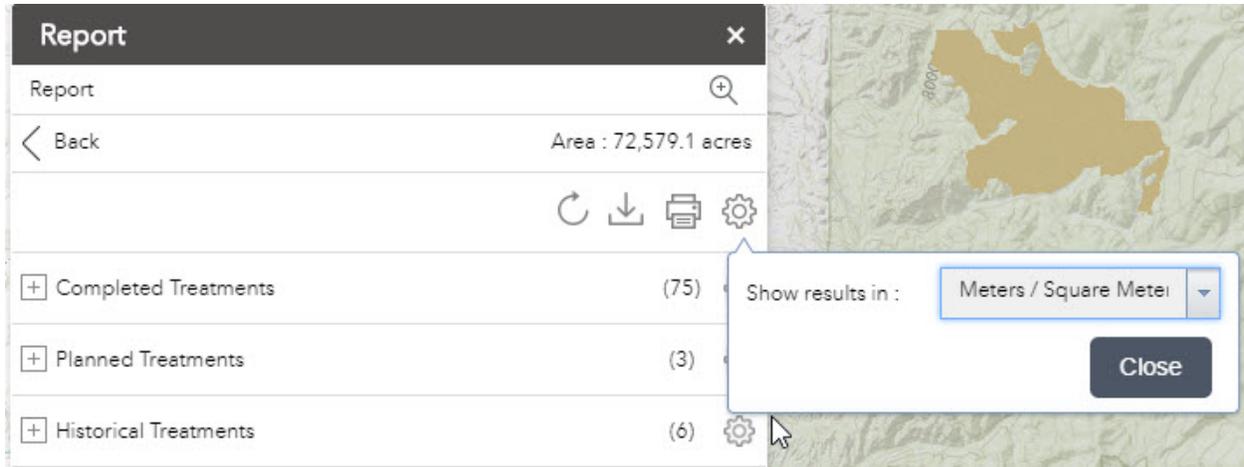
Note:

When all fields are disabled, the layer will be hidden in the printed report.

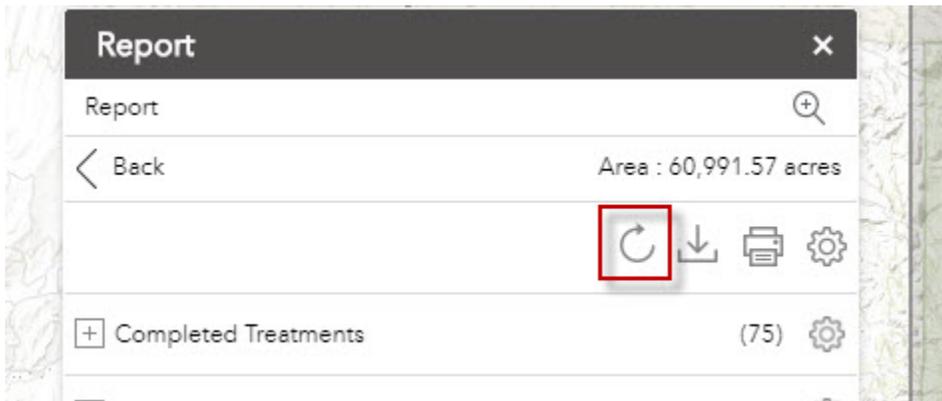


3. Optionally change the units of the analysis results by clicking the **Choose units for analysis** button.

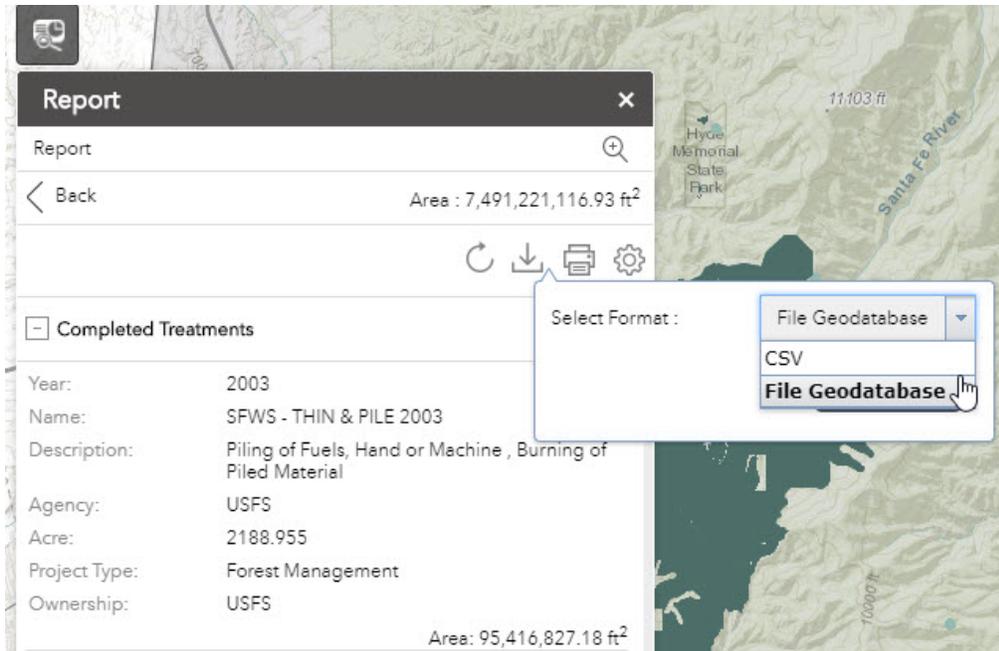
A window will open allowing you to choose the length and area units for analysis results.



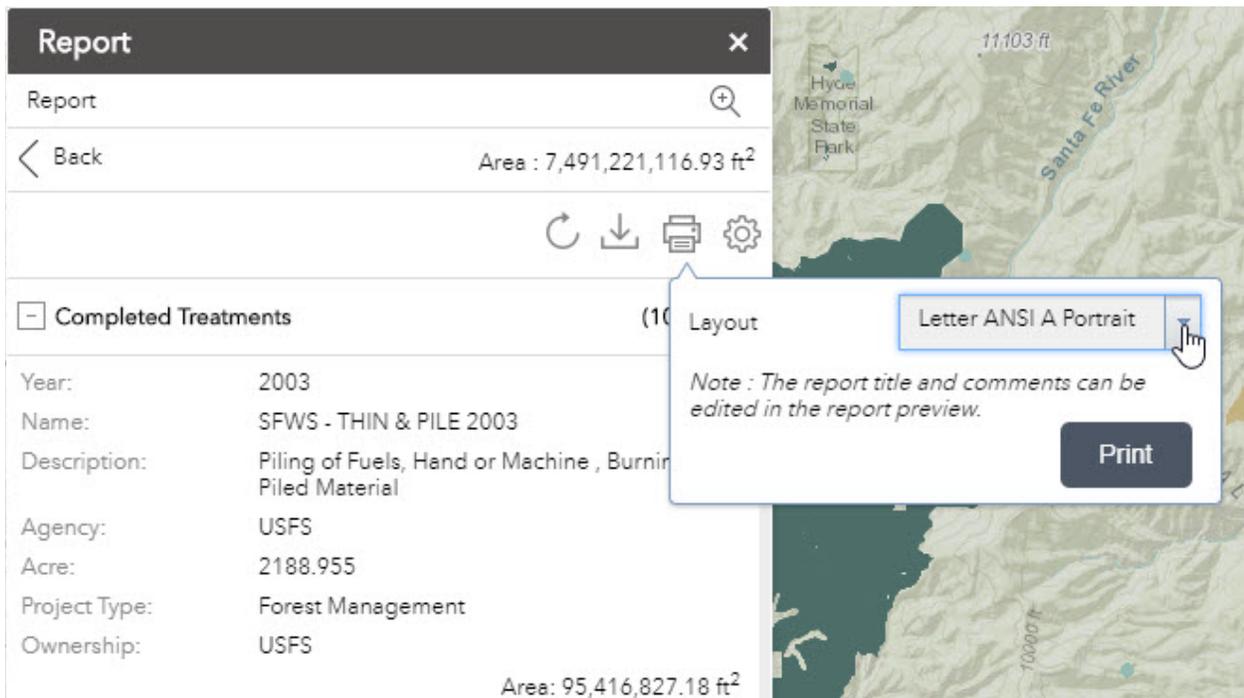
4. Optionally refresh the analysis results for the current area of interest by clicking the **Refresh report** button.



5. Download feature information in CSV file, shapefile, or file geodatabase format by clicking the **Download** button and choosing a format.



6. Print a report of the analysis results by clicking the **Print** button and choosing a page size and orientation.



A new window appears. Change the report title or comments.

Search widget

The Search widget enables end users to find locations or search projects by name on the map.

Using the Search widget

1. When you enter a place-name or a keyword in the search box, you see suggestions as you type. If you see an arrow in the search box, you can search on all sources, or click the arrow and choose a locator or layer from the drop-down list.



A pop-up appears at the location of the place-name or the feature and displays any available attribute information.

2. Click the ellipsis (...) button under the low right of the pop up, a list of actions displays including adding or removing a marker from the map.

Select widget

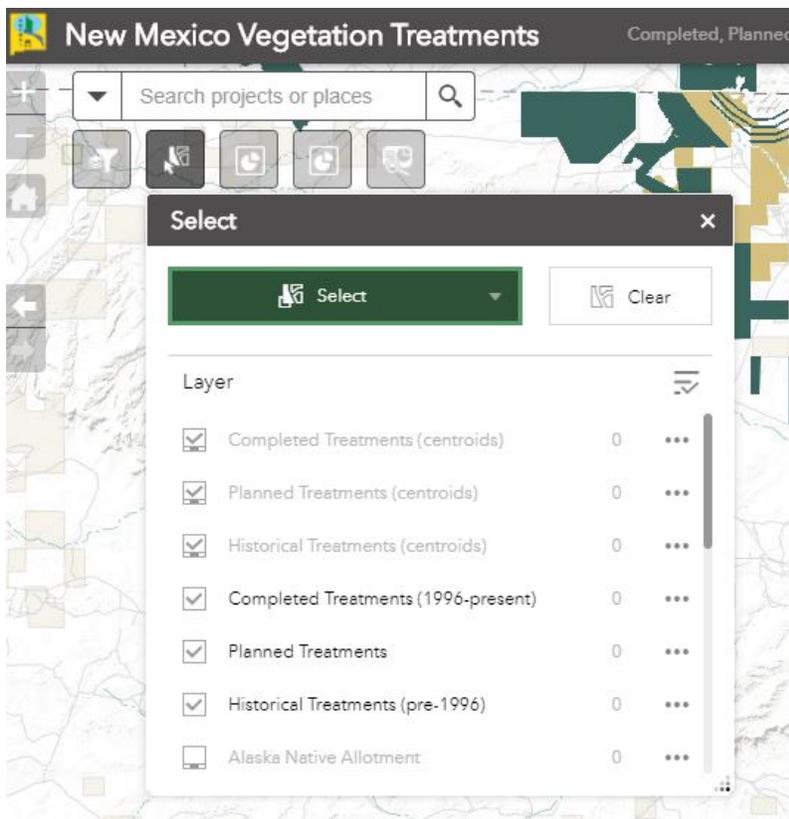
The Select widget enables you to interactively select features on the map and take actions on the selected features.

Using the Select widget

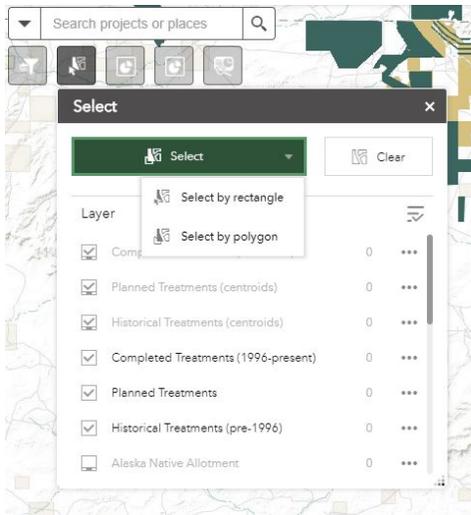
The following steps explain how to use the Select widget:

1. Click the Select widget icon to open it.
2. Choose the layer or layers you want by checking the box.

You can also make all layers selectable or de-selectable, or toggle layers select ability by clicking the button at the up-right corner of the panel, inline with **Layer**.

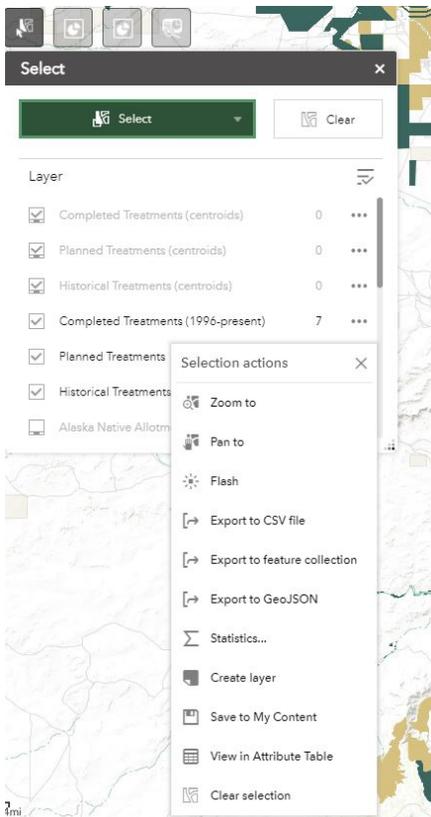


3. Hover over the **Select** button. You can **Select By Rectangle** with the following actions:
 - Drag the pointer on the map to create a new selection.
 - Press the Shift key while dragging the pointer on the map to add selected features to the selection.
 - Press the Ctrl key while dragging the pointer on the map to remove selected features from the selection.
4. Click **Select** and draw on the map to select features. To select by polygon, click the arrow on **Select** to choose the tool in the menu.



The number of selected features display next to the layer.

5. Click the ellipsis (...) to open the **Selection Actions** drop-down menu.



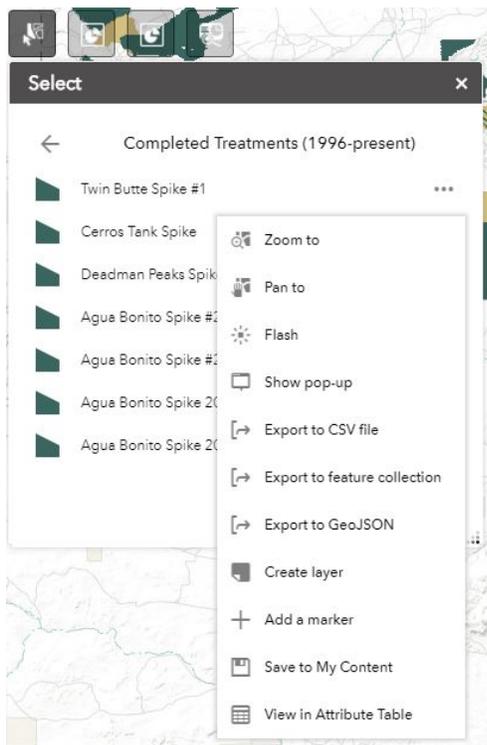
- o Click one of the actions, for example, **Statistics**. Choose the field you want to see for the statistics.

- Click **Create Layer** to create a new temporary graphic layer on the map. You can turn it on and off in the Layer List widget. It will disappear when you exit or refresh the page.
- Click **Export to CSV file**. A CSV file is generated locally for the feature set.

Caution:

If **Export to GeoJSON** is selected, you may notice that the GeoJSON file does not contain spatial reference information. This is by design. The geometries have been automatically projected to wkid 4326 during the exporting process.

- Optionally click the rest of the actions.
6. Click **X** on the main panel to close the drop-down menu.
 7. Alternatively click the number to display the list of features. Click the ellipsis (...) next to the feature to open the selection actions drop-down menu.



8. Click the **Back** button  to return to the main panel.
9. Click **Clear** to clear all the selections.

Share widget

The Share widget allows you to share an app by posting it to your social media account, sending an email with a link, or embedding it in a website or blog. It also provides an easy way to define URL parameters for the app.

Using the Share widget

1. Click the Share widget icon to open it.
2. Copy the short link under **Share a link to this app** and paste it into your email, instant message, and so on. You can also use the provided buttons to post your app to your Facebook, Twitter, or Google accounts, or in an email. Please note that the URL: www.vegetationtreatments.org will take you directly to the Vegetation Treatments Web App. Please share this url instead of the ArcGIS short link, if possible.
3. Under **Embed this app in a website**, copy the HTML code and paste it into your website. If you want, click **Embed Options** to choose the size of your app to be embedded.