

Environmental Datasets

Map Viewer Instructions

SDMMP provides stakeholders with access to spatial information through an ArcGIS online map viewer. A map viewer is a software program, accessed from a webpage, which displays a specific set of spatial layers and allows users to access tools to investigate the layers interactively. Because the map viewer simply displays spatial information, multiple viewers can be used to display different combinations of same layers. A spatial layer is a collection of related objects (or features) that can be viewed through either an online or desktop viewer. Note that this viewer does not contain MSP 2014-2016 Priorities.

This instruction sheet provides more detailed instructions and overview of all the available layers, links, and tools. Additional questions can be sent to Emily Perkins, SDMMP GIS Manager, at eperkins@usgs.gov.

Main Map Functions

This is a new viewer developed by ESRI called the Web AppBuilder. If you are unfamiliar with the layout and functionality, read the instructions below. Use the figure on the next page to locate each function on the map viewer's interface (Figure 1). The sections below describe each in more detail.

Along the top of the viewer, there are 3 links that will lead outside of the map page, on a new tab. "Data Downloads" will lead to the USGS online data repository called Sciencebase and contains all the SDMMP layers (including many not shown on this viewer) available to download in a form used on a desktop mapping program. "Metadata" will also lead to Sciencebase and contains the metadata for each layer displayed in the viewer. Finally, "SDMMP home" will lead back to SDMMP.com.

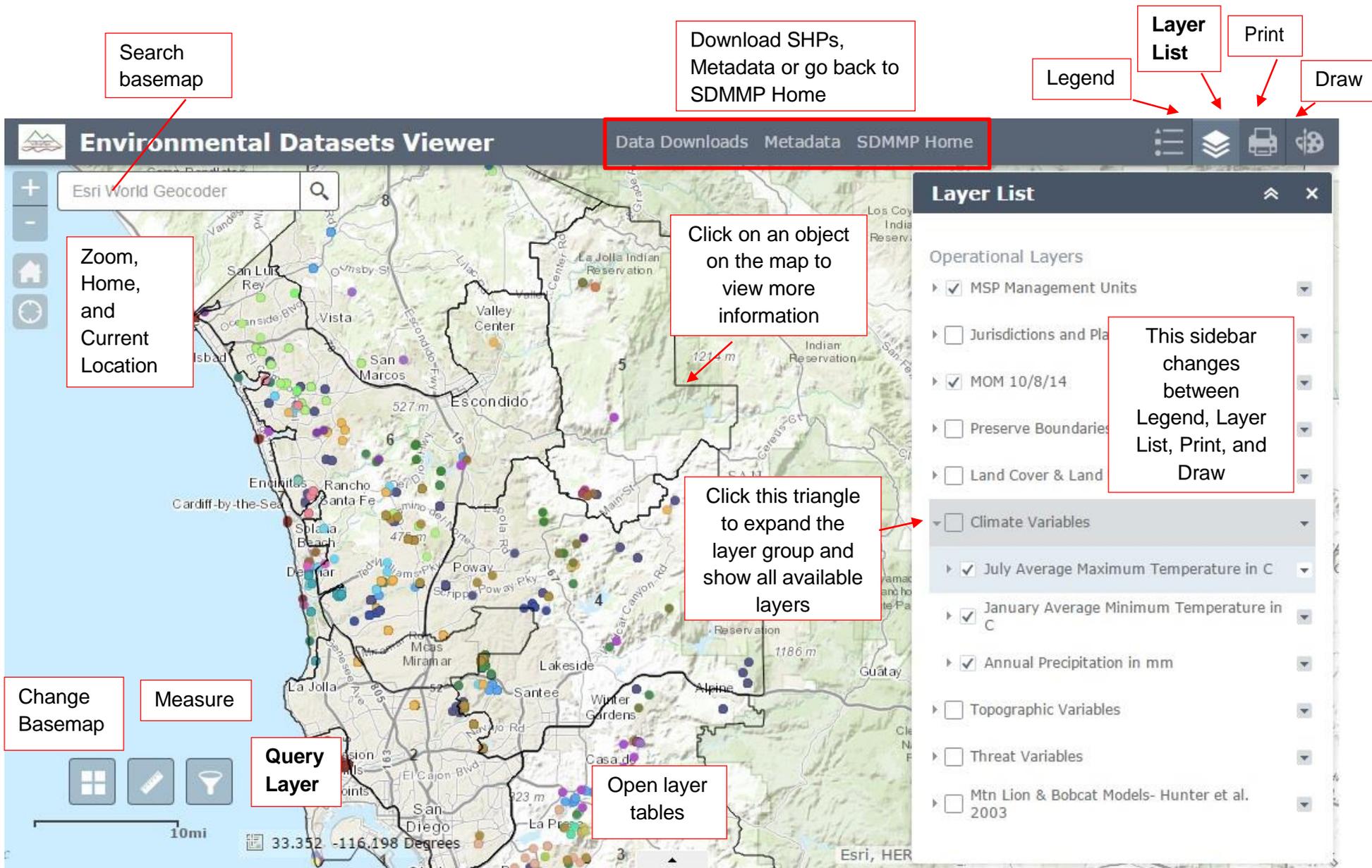


Figure 1: Layout of Viewer

Pop-up information

To get more information about an object, click on the map where the object is located and a pop-up window will appear. Attributes include the occurrence preserve information, threats to the occurrence, and any recommended management actions. Where available, the measured population size and the year it was surveyed is also included. To download a full version of MSP-MOM, click the link at the bottom of the pop-up.



Figure 2: Pop-up windows

Some locations may include multiple pop-up windows. This may be because a single plant occurrence was surveyed in multiple years or an animal polygon overlaps a plant or another animal occurrence. At the top of the pop-up box, on the left side, a statement (1 of XX) indicates how many overlapping objects occur in that location. Click the triangle on the top right corner of the box, to scroll through all the pop-up information available. Take note of the bright blue outline that appears on the map. It will change to highlight the selected object.

Sidebar Options

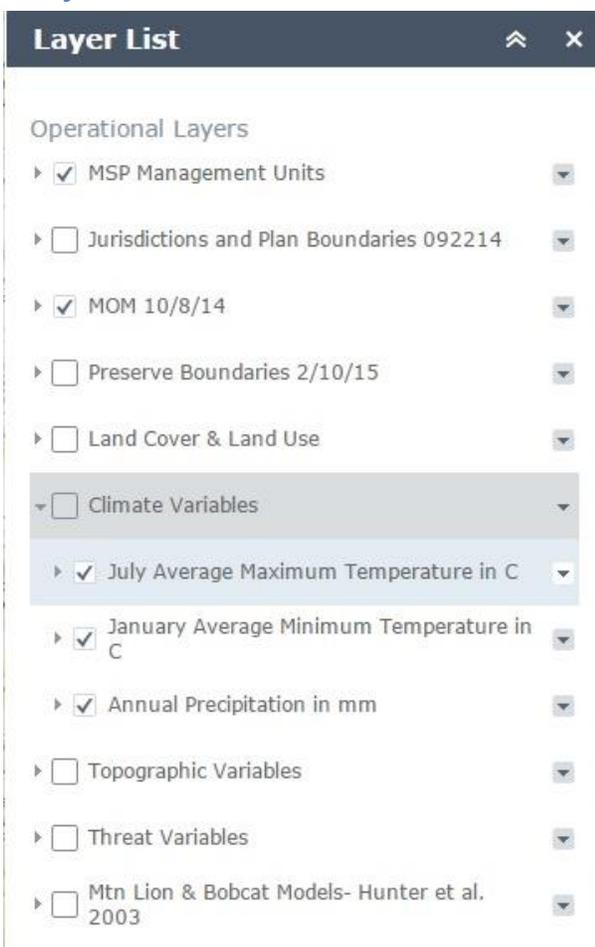
The sidebar on the right of the map, is controlled by clicking on the icons along the top right of the map viewer. Each option is discussed below.



Legend

The legend simply displays the symbology of all the active (checked) layers in the order they are drawn on the map (Figure 4). To toggle the layers, use the Layers List.

Layers List



The Layers List displays the map's layers in the order they are viewed (Figure 3). Layers lower on the list will appear under layers higher up on the list. The check box next to the layer name turns the layers on and off. **If you click on the layer name, additional information will appear.** Clicking on the sublayer names will show the symbology for that particular layer. In Figure 3, The Non-Prioritized Occurrences have been expanded to view a list of sub-layers. The sub-layer has been further expanded to show the symbology of the layer. Symbols can also be seen by viewing the legend.

The check boxes work in a hierarchical structure. For instance, turning off the "Non-Prioritized Occurrences" layer will also remove all sublayers from the map display but they will remain checked. It is helpful to turn off layers at the highest level necessary and only turn on layers that are necessary. This will keep down confusion in the Layer List as well as pop-ups in the map display. Click on the grey, down arrow to the right to open the attribute table for each layer.

Figure 3: Layer List

Print

The print function allows you to create a PDF or JPG map of the area currently in the map's extent. There are several options for layouts and formats available. Type in a Map Title and choose one of the pre-set layouts. A3 or A4 formats are recommended for a complete layout with legend items. In the advanced area, you can choose to maintain the map's current scale or extent, type in an author and copyright information, turn the legend on or off, and control the map size and quality (Figure 5). Once the parameters are set, click print. A loading bar will appear for a brief time and be replaced with the title of your map, once it is complete. Click on the title to open a new tab with the map and save the file to your computer.

Legend

Climate Variables

July Average Maximum Temperature in C

- 21 - 23
- 23.1 - 25
- 25.1 - 26
- 26.1 - 28
- 28.1 - 30
- 30.1 - 32
- 32.1 - 34
- 34.1 - 37
- 37.1 - 39
- 39.1 - 41

January Average Minimum Temperature in C

- 3 - 0
- 0.1 - 2
- 2.1 - 4
- 4.1 - 6
- 6.1 - 9

Annual Precipitation in mm

- 79 - 145
- 145.1 - 228
- 228.1 - 310
- 310.1 - 373

Figure 4: Legend

Print

Map Title:

Layout:

Format:

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

Layout metadata:
 Author:
 Copyright:

Include legend:

MAP_ONLY size:
 Width (px):
 Height (px):

Print quality:
 DPI:

Figure 5: Print

Draw

Select drawing mode

Preview:

Color:

Transparency: (0% to 100%)

Outline Color:

Outline Width:

Show Measurements

Figure 6: Draw

Draw

The draw tools allows you to create points, lines, shapes or polygons to the map (Figure 6). Choose a type of drawing, and select the color, transparency, and outline color. The check box at the bottom “Show Measurements” will display on the map the area or length of the drawing created. Be sure to check this box before drawing or the area will not show up. Once drawn, it cannot be edited but the drawing can be cleared and redone. This will not show in the legend but will be displayed on the printed map.

Widgets

Widgets are located in the bottom left corner of the map and provide the functions Query, measure, and change basemaps.



Query Layers

The funnel icon queries layer information. Click on the icon, and choose from the list of possible searches (ex: Preserve General Owner, Preserve Name, MOM Common Name) (left side of Figure 7). Choosing a search will open a dialog box where you can type in the name of the object you are interested in (right side of Figure 7). Check box options allow you to limit the search to a spatial area by drawing a custom shape on the map or add the search result as a layer in the legend. Once the search is entered, click the Apply button in the top right corner of the dialog box. The map will automatically zoom to the selected feature and highlight the object with a different symbology. All searches will stay highlighted until you press the Clear Results button at the bottom of the box.

Query	Query
Click one of the following task items to execute query.	← QUERIES Options APPLY
Preserve General Owner >	Specify parameters for this task :
Preserve Name >	PropertyNa contains <input type="text" value="Rancho Jamul"/>
MOM 10/08/14 >	<i>Rancho Jamul</i>
	<input type="checkbox"/> Use spatial filter to limit features
	<input type="checkbox"/> Add result as operational layer
	<small>With this option checked, results will be kept on the map until the "Clear Results" button clicked.</small>
Clear Results	Clear Results

Measure Tool

The measure tool will calculate distance and area in several available units. It will also calculate the XY coordinates for any location on the map. Open the dialog box by clicking on the ruler icon. Choose from the icons at the top (either distance, area, or location). Use the drop down list next to the icons to specify units. Then draw on the map the shape to be measured. This will not be shown in the legend or on a printed map.

Basemap

A basemap is a static layer with basic location information. The default for this viewer displays general topography and locations. To change the basemap to any of the default ESRI basemaps by clicking the icon with 4 smaller boxes. Click on the new basemap in the dialog box and the map will be automatically updated. A description of each of the basemaps can be found at: <http://www.esri.com/software/arcgis/arcgisonline/maps/maps-and-map-layers>

Conclusion

This map viewer gives users the ability to search layers, change basemaps, draw shapes, calculate acreages, and print custom maps. This instruction sheet covers the basics of each of these functions. For additional help, contact Emily Perkins of SDMMMP, eperkins@usgs.gov.