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Chapter 6 Appendix

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Chapter 6
Appendix A

Cuyama Basin Data Management System
Opti Data Public User Guide

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Cuyama Basin Data Management System



Public User Guide



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Opti Public User Guide

Opti is a one-stop-shop for transparent data management and analysis that enables integrated performance tracking to support sustainable water management. This Public User Guide has been developed to assist you with navigation and usage of the Cuyama Basin Data Management System (DMS). Please see the Appendix for specific data types and quality codes configured in this implementation.

The DMS may be accessed at: <http://opti.woodardcurran.com/cuyama>

Please click on Guest Login to access the DMS as a guest user. If you would like to gain additional access to the DMS for data updates and management, please contact: Taylor Blakslee (tblakslee@hgcpm.com).

Public usage of the DMS is explained in the following modules:

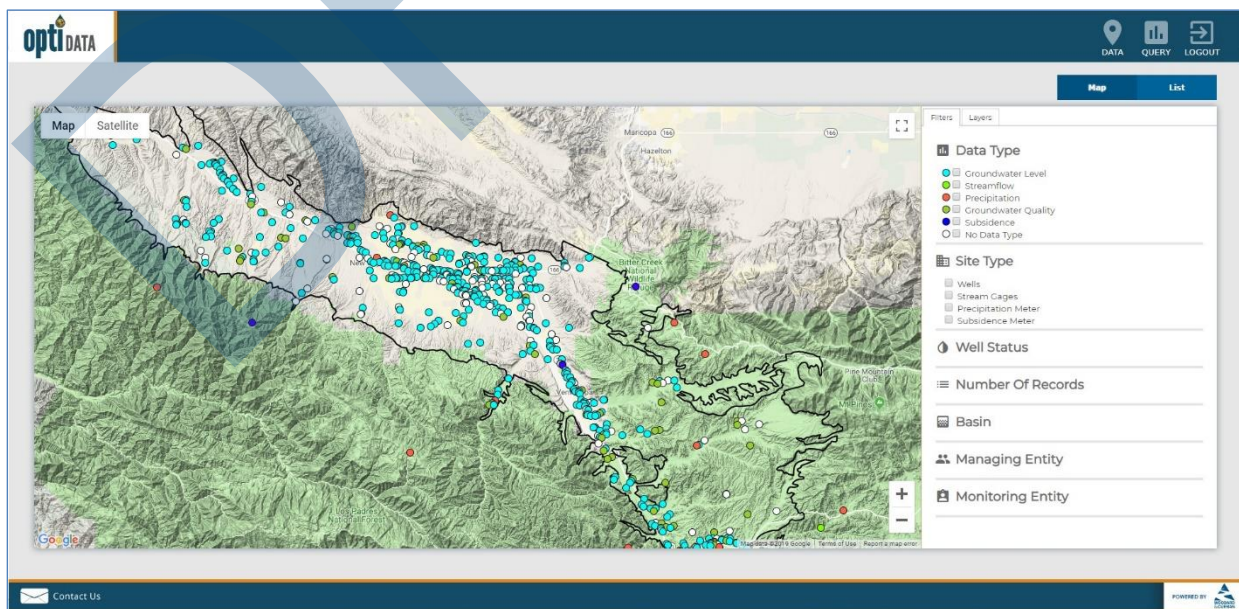
- [Data](#)
- [Query](#)

Module: Data (Top)

The Data module contains two available submodules that allow you to view water resources data and their associated site information: Map and List. Upon entering the DMS, a welcome message will be displayed. Click Close to continue to the Map.

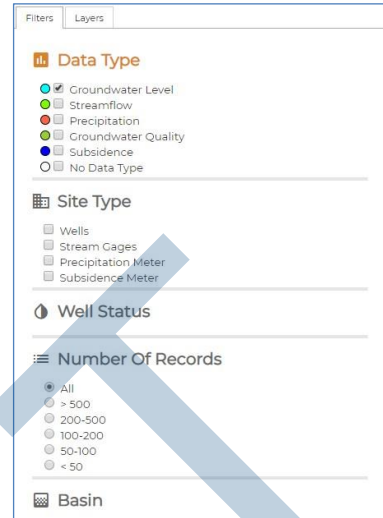
Submodule: Map

The Map submodule displays the sites (wells, stream gages, facilities, etc.) as point locations on the map.



Feature: Change the Google Map display

- To move the location or extent of the map display, use the “+” and “-” icons in the lower right-hand corner of the map. You may use the pan tool to move the focal location of the display.
- To change the base layer of the map display, select an option from the upper left-hand side of the map display (Map or Satellite).



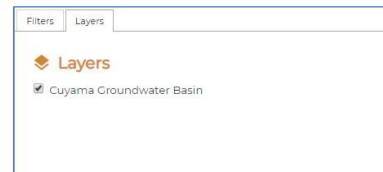
Feature: Filter the results displayed on the map

- On the Filters tab on the right-hand panel, select the checkboxes for the options for which you would like to filter the results.
- Select sites based on:
 - data type associated with the site,
 - site type,
 - number of data records,
 - entity, or
 - a combination of any filter.

Please note that sites may have more than one data type associated with them, e.g., groundwater level and groundwater quality.

Feature: Change the layers displayed on the map

- Click on the Layers tab on the right-hand panel.
- Select the layers that you wish to have displayed. Upon selection, the map will be updated to show the selected layers.
- You may click on features on the layer to view information on that feature.



Feature: View site information on the map

- Click on a site on the map. The site information will be displayed with tabs for Site Info, Chart, and Data.
- To view site detailed information, click on the Details link. The Site Details page will open.
- To view a chart of the data, click on the Chart tab. You may change the parameter by selecting a parameter from the drop-down list in the upper right-hand corner. You may update the chart timeline by selecting the Start Date and End Date and clicking Update. You may export the data to Excel by clicking Export.
- To view a table of the data, click on the Data tab. You may change the parameter by selecting a parameter from the drop-down list in the upper right-hand corner. You may narrow the tabular

list by selecting the Start Date and End Date and clicking Update. You may export the data by clicking Export.

- To select a different data type for the site, click on the data type available under “Data Available” on the Site Info tab.

The screenshot shows the OptiDATA web application interface. At the top, there are navigation links for DATA, QUERY, and LOGOUT. Below the header is a map showing the location of OPTI Well #316. A pop-up window titled "Groundwater Level for OPTI Well #316" is open, displaying site information and a smaller map. The site information includes: Site Name: OPTI Well #316, Site Type: Well, Monitoring Entity: Unknown, Latitude: 34.89771667, Longitude: -119.542125, Status: N/A, and Data Available: Groundwater Level, Groundwater Quality. A filter panel on the right side of the main map allows users to select data types (Groundwater Level, Streamflow, Precipitation, Groundwater Quality, Subsidence, No Data Type), site types (Wells, Stream Gages, Precipitation Meter, Subsidence Meter), well status (Abandoned, Active, Destroyed, Inactive, Unknown), number of records, basin, and managing entity.

The screenshot shows the "Site Details for OPTI Well #316" form. The "Basic Info" tab is selected. The form includes the following fields: Site Type (Well, Stream Gage, Precipitation Meter), Opti Site Name (OPTI Well #316), Local Site Name, Additional Name, Latitude (34.89771667), Longitude (-119.542125), and Description.



Submodule: List

The List submodule contains a list of sites in a sortable, tabular format.

Site Name	State Well ID	CASSEM ID	Managing Entity	Monitoring Entity
OPTI Well #1	07N23W115F002S	8639	Cuyama Basin GSA	Unknown
OPTI Well #2	07N23W16R001S	8641	Cuyama Basin GSA	County of Ventura
OPTI Well #3	07N23W20C001S	8642	Cuyama Basin GSA	Unknown
OPTI Well #4	07N23W21B001S	8643	Cuyama Basin GSA	Unknown
OPTI Well #5	07N23W21D001S	8644	Cuyama Basin GSA	Unknown
OPTI Well #6	07N23W23G001S	8645	Cuyama Basin GSA	Unknown
OPTI Well #7	07N24W02K001S	8647	Cuyama Basin GSA	Unknown
OPTI Well #8	07N24W02R001S	8648	Cuyama Basin GSA	Unknown
OPTI Well #9	07N24W11R002S	8649	Cuyama Basin GSA	Unknown
OPTI Well #10	07N24W12G001S	8650	Cuyama Basin GSA	Unknown
OPTI Well #11	07N24W13C002S	8651	Cuyama Basin GSA	Unknown
OPTI Well #12	08N23W17H001S	9738	Cuyama Basin GSA	Unknown
OPTI Well #13	08N23W17K001S	9739	Cuyama Basin GSA	Unknown
OPTI Well #14	08N24W08L001S	9740	Cuyama Basin GSA	Unknown
OPTI Well #15	09N23W30G001S	10871	Cuyama Basin GSA	Unknown
OPTI Well #16	09N23W30M001S	10872	Cuyama Basin GSA	Unknown
OPTI Well #17	09N24W32Q002S	10873	Cuyama Basin GSA	Unknown
OPTI Well #18	11N23W32R001S	12310	Cuyama Basin GSA	California Department of Water Resources
OPTI Well #19	11N28W22A001S	12311	Cuyama Basin GSA	California Department of Water Resources
OPTI Well #20	11N28W26B001S	12312	Cuyama Basin GSA	California Department of Water Resources
OPTI Well #21	10N24W17R001S	14503	Cuyama Basin GSA	California Department of Water Resources
OPTI Well #22	10N24W02L001S	14504	Cuyama Basin GSA	California Department of Water Resources
OPTI Well #23	10N25W14Q001S	14505	Cuyama Basin GSA	California Department of Water Resources
OPTI Well #24	10N25W15Q002S	14506	Cuyama Basin GSA	California Department of Water Resources
OPTI Well #25	10N25W17K001S	14507	Cuyama Basin GSA	California Department of Water Resources
OPTI Well #26	10N25W25H001S	14508	Cuyama Basin GSA	California Department of Water Resources
OPTI Well #27	10N25W21Q001S	14509	Cuyama Basin GSA	California Department of Water Resources
OPTI Well #28	10N25W23E001S	14510	Cuyama Basin GSA	California Department of Water Resources
OPTI Well #29	10N25W25M003S	14511	Cuyama Basin GSA	California Department of Water Resources
OPTI Well #30	10N25W25B001S	14512	Cuyama Basin GSA	California Department of Water Resources
OPTI Well #31	10N25W27G001S	14513	Cuyama Basin GSA	California Department of Water Resources

Feature: Filter and/or sort sites

- Select data type, site type, number of records, or entity from the drop-down menu at the top of the table to filter sites.
- Click on the table headers to alphabetically or numerically sort the selected column.

Feature: View site information from list

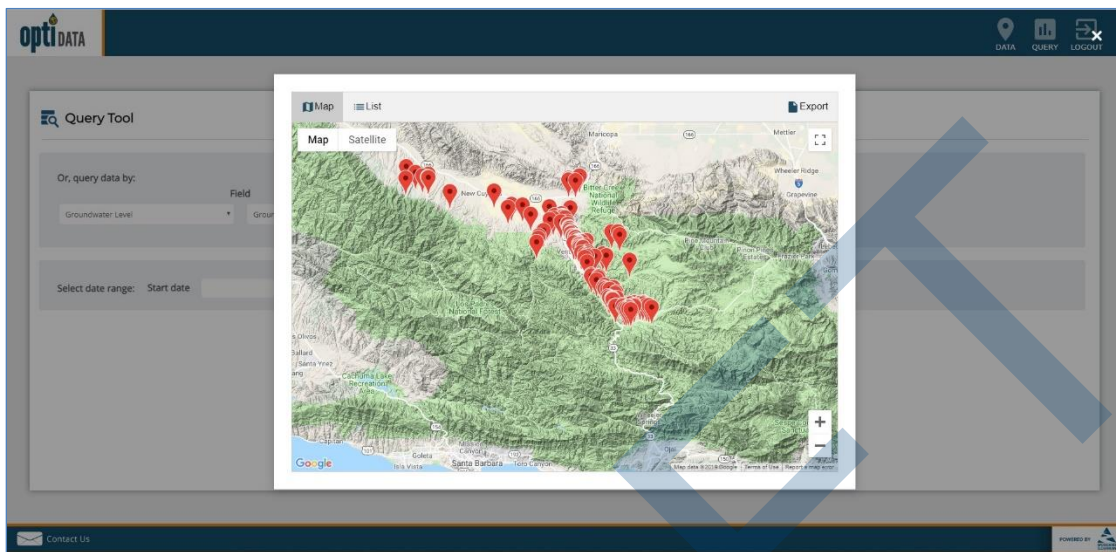
- Click on the selected site name in the list. The site information will be displayed with tabs for Site Info, Chart, and Data. The Site Details page is available through this dialogue box. The following information may be available:

Basic Info	Well Info	Construction Info
Site Type	State Well ID	Total Well Depth
Opti Site Name	MSC (Master State Well Code)	Borehole Depth
Local Site Name	USGS Code	Casing Perforations
Additional Name	CASGEM ID	Top/Bottom Elevation
Latitude/Longitude	Ground Surface Elevation (ft)	Casing Diameter
Description	Reference Point Elevation (ft)	Casing Modifications
County	Reference Point Location	Well Capacity
Managing Entity	Reference Point Description	Well Completion Report Number
Monitoring Entity	Well Use	Comments
Type of Monitoring	Well Status	
Type of Measurement	Well Type	
Monitoring Frequency	Aquifers Monitored	
	Groundwater Basin Name/Code	
	Groundwater Elevation Begin/End Date	
	Groundwater Elevation Measurement Count	
	Water Level Measurement Method	
	Groundwater Quality Begin/End Date	
	Groundwater Quality Measurement Count	
	Comments	

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Module: Query (Top)

The Query module allows users to search for sites and data using different parameters and values.



Feature: Create new query

- Click on the Query icon in the menu.
- To create a new query:
 - Select the following options from the drop-down menu under “Or, query data by:”:
 - Entity
 - Site Name
 - Groundwater Level
 - Streamflow
 - Precipitation
 - Groundwater Quality
 - Surface Water Quality
 - If the selected option has associated parameters, select a parameter in the second drop-down menu.
 - Select an Operator. Please note that for text searches, you may use the “Like” option with wildcards (%).
 - To add additional rows to the query, click on the blue “+” button and complete.
 - To remove rows from the query, click on the red “-” button.
- To select data within a particular date range, complete the Start date and End date fields.
- Click Run. A window will open with a map view of the results.
 - Click on the site in the map to view the data for the site.
 - Click on the List tab to view the data in a list format. You may click on a site to view the data.
 - Click on Export to export the data to Excel.
- To clear the query, click the Clear button at the bottom of the page.

Appendix – Cuyama Basin Specific Implementation Information

Data Types

The following data types are currently configured in the DMS. Please note that this list may change as more data becomes available.

Data Type	Parameter	Units	Currently Has Data in DMS
Groundwater Elevation	Depth to Groundwater	feet	Yes
	Groundwater Elevation	feet	Yes
Groundwater Quality	Total Dissolved Solids (TDS)	MG/L	Yes
	Nitrate (NO3)	MG/L	Yes
	Arsenic	UG/L	Yes
	Benzene	UG/L	
	Chloride	MG/L	
	Hexavalent Chromium (CR6)	UG/L	
	Dibromochloropropane (DBCP)	UG/L	
	Methyl Tertiary Butyl Ether (MTBE)	UG/L	
	Perchlorate	UG/L	
	Tetrachloroethylene (PCE)	UG/L	
	Specific Electrical Conductivity (SC)	UMHOS/CM	
	1,1,1-Trichloroethane (111-TCA)	UG/L	
	Trichloroethylene (TCE)	UG/L	
	1,2,3-Trichloropropane (123-TCP)	UG/L	
	CL	PPM	
	EC	Mmhos	
	TDS	PPM	
Streamflow	Streamflow	CFS	Yes
Precipitation	Precipitation	inches	Yes
	Reference Evapotranspiration (ETo)		
	Average Air Temperature		
Subsidence	Subsidence	Vertical (mm)	Yes

Quality Flags for Measurement Data

The following quality flags are currently configured in the DMS. Please note that this list may change as more data becomes available.

ID	Quality Flag	Associated Data Type
1	Caved or deepened	Groundwater Level
2	Pumping	Groundwater Level
3	Nearby pump operating	Groundwater Level
4	Casing leaking or wet	Groundwater Level
5	Pumped recently	Groundwater Level
6	Air or pressure gauge measurement	Groundwater Level
7	Other	Groundwater Level
8	Recharge or surface water effects near well	Groundwater Level
9	Oil or foreign substance in casing	Groundwater Level
10	Acoustical sounder	Groundwater Level
11	Recently flowing	Groundwater Level
12	Flowing	Groundwater Level
13	Nearby flowing	Groundwater Level
14	Nearby recently flowing	Groundwater Level
15	Measurement Discontinued	Groundwater Level
16	Pumping	Groundwater Level
17	Pump house locked	Groundwater Level
18	Tape hung up	Groundwater Level
19	Can't get tape in casing	Groundwater Level
20	Unable to locate well	Groundwater Level
21	Well has been destroyed	Groundwater Level
22	Special/Other	Groundwater Level
23	Casing leaking or wet	Groundwater Level
24	Temporarily inaccessible	Groundwater Level
25	Dry well	Groundwater Level
26	Flowing artesian well	Groundwater Level