CEDEN

California Environmental Data Exchange Network

Using the CEDEN Online Query Tool

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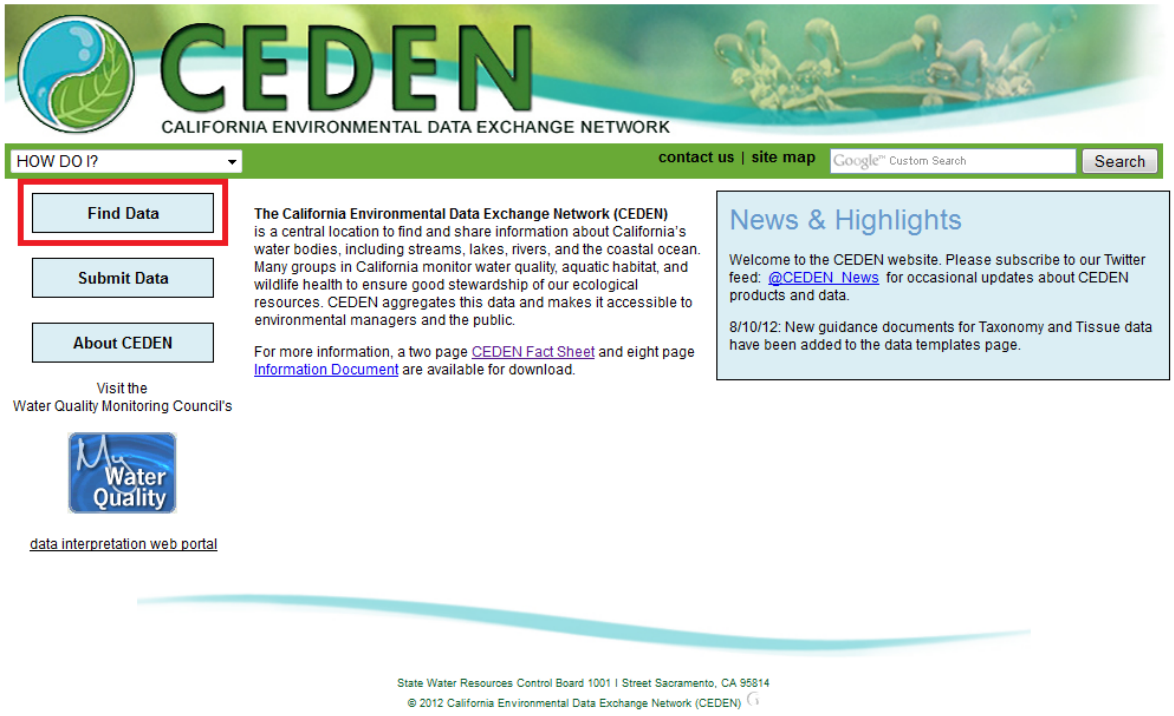
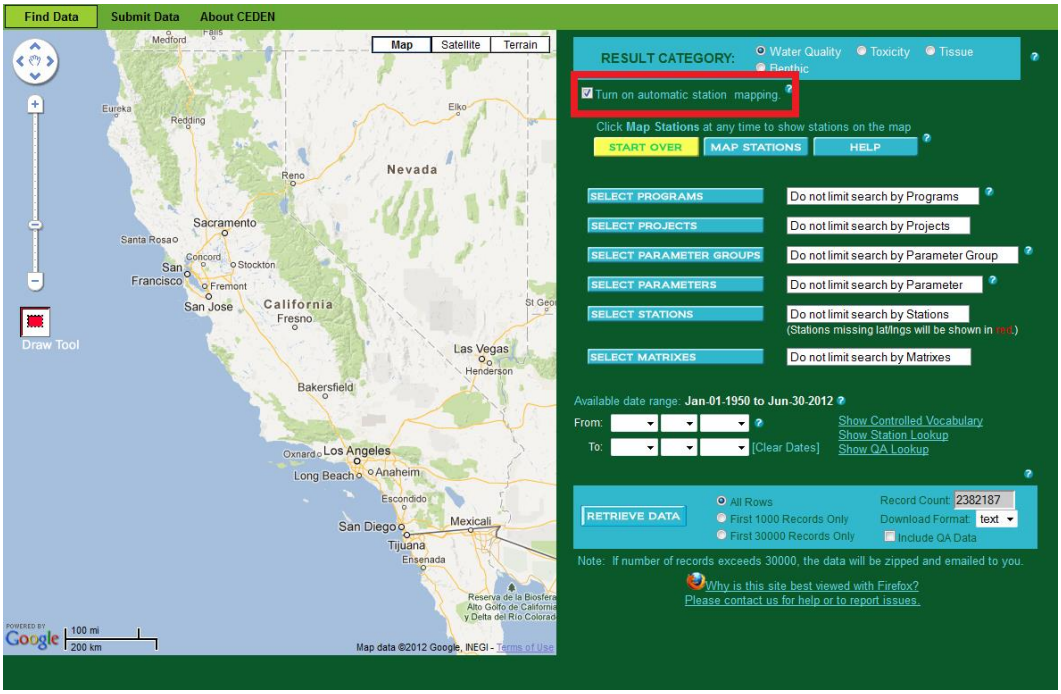
Using the CEDEN Online Query Tool

Data submitted to CEDEN can be accessed using an online Query Tool located on the CEDEN website, www.CEDEN.org. To access the Query Tool, click the 'Find Data' button on the CEDEN Homepage:

The CEDEN Homepage



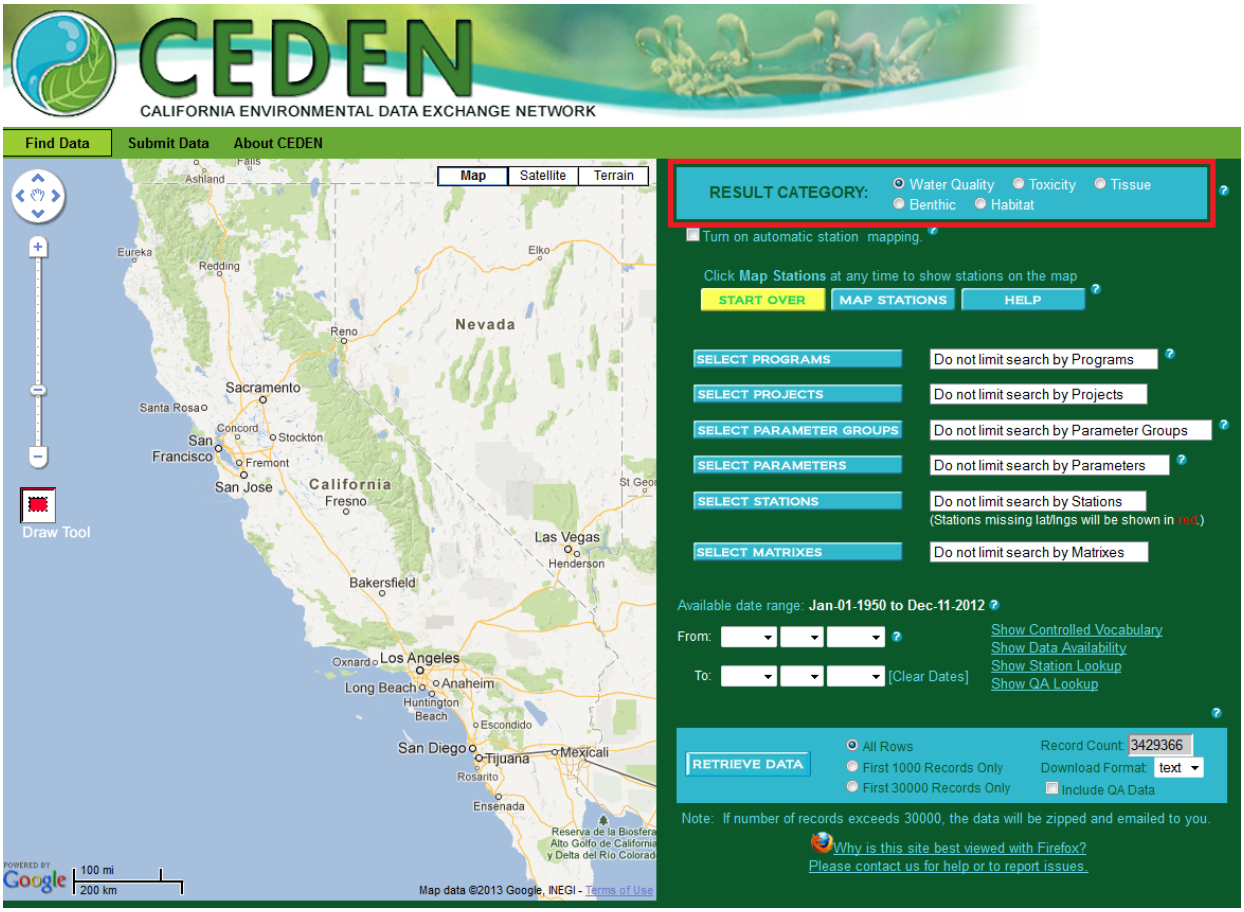
This will take you to the following screen:



The Automatic Station Mapping feature can be used to narrow down the locations for which data will be retrieved. This feature is located under the "Result Category" text toward the upper right hand corner (see above screenshot, the feature is highlighted with a red box).

To utilize this feature, click on the box to the right of the words "Turn on automatic station mapping". Utilizing the automatic station mapping feature will generate locations on the map based on the parameters that are used to limit the search (e.g. programs, parameters, stations). If you do not limit the search, all stations with monitoring data will be indicated on the map. The response time will slow down with this feature due to the page having to refresh every time you make a selection.

Step 1: Choosing Your Data Type



The Result Category box in the upper right hand section of the screen allows you to choose one of the following data types:

- Water Quality data (water and sediment chemistry results)
- Toxicity data (sediment and aquatic samples)
- Tissue data (a wide variety of species)
- Benthic data (bioassessment, biology and taxonomy)
- Habitat data (field observations: wind speed, flow, precipitation, etc.)

If you want more than one data type queried you will need to run separate searches.

NOTE: Clicking on any of these five options while you have a query in progress will reset your entire search.

Step 2: Filtering Your Data

Depending on which data type you choose, you'll encounter different combinations of the search options listed below. You can use one, or many, or none of these options. They work dynamically, so if you select a Project and then try and select a Station, you will only see those Stations that are part of your selected Project.

All search options include selectable lists which work with typical keyboard and mouse interactions. Holding down the CTRL button allows you to select multiple items from any list. Shift clicking allows you to select all items between two clicks. CTRL+Shift clicking allows you to select multiple blocks of items from any list.

At any time, you can click on the various icons to get more information about a search option.

Water Quality, Toxicity, and Tissue have similar sets of search options, while Benthic results offer a couple different choices, and Habitat results have more limited search options.

Programs:	This is a broad category that may encompass multiple Projects. Examples include the Surface Water Ambient Monitoring Program and the Regional Monitoring Program.
Projects:	This is a more specific category than Program. It may narrow your search by area or year.
Parameter Groups:	These are predefined groups of parameters. Examples include metals and pesticides.
Parameter:	To make it easier for the user to query data, analyte (e.g. "Lead") and fraction (e.g. "Total") are combined to make the attribute Parameter (e.g. "Lead, Total"). This list is of a more manageable size if a Parameter Group is selected first.
Stations:	Stations are descriptions of the locations where samples are collected. For example, "Craig Creek above Sacramento River" or "Yerba Buena Island (BC10)".
Matrixes: (Water Quality/ Toxicity)	Matrix describes the media of the sample. For Water Quality, the most typical matrices are "samplewater" and "sediment". For full descriptions of each matrix look at the Matrix Controlled Vocabulary (see the Controlled Vocabulary section below).

Species/Organisms: (Tissue/Benthic)

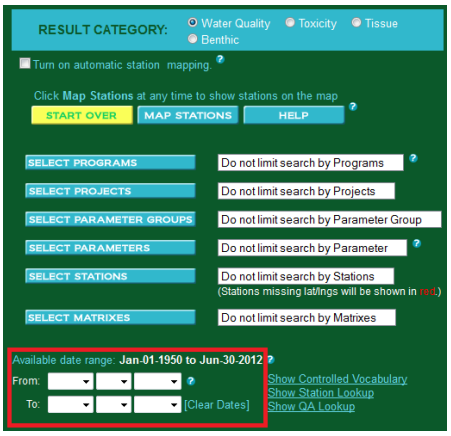
This is a list of the final IDs, which represent the lowest taxon level that was identified for each sample. In many cases this is genus and species. In some cases the lowest identified level might only be the genus. This is important to note, because if you select "Ameiurus" for your Species, you will only get results for samples identified as "Ameiurus", you will not see additional results for "Ameiurus catus", "Ameiurus melas", "Ameiurus natalis", etc. You can see the Organism Controlled Vocabulary for more information about any final IDs.

Organism Groups: (Benthic)

This is a list of phylum to help you select broad groups of organisms.

Date Range:

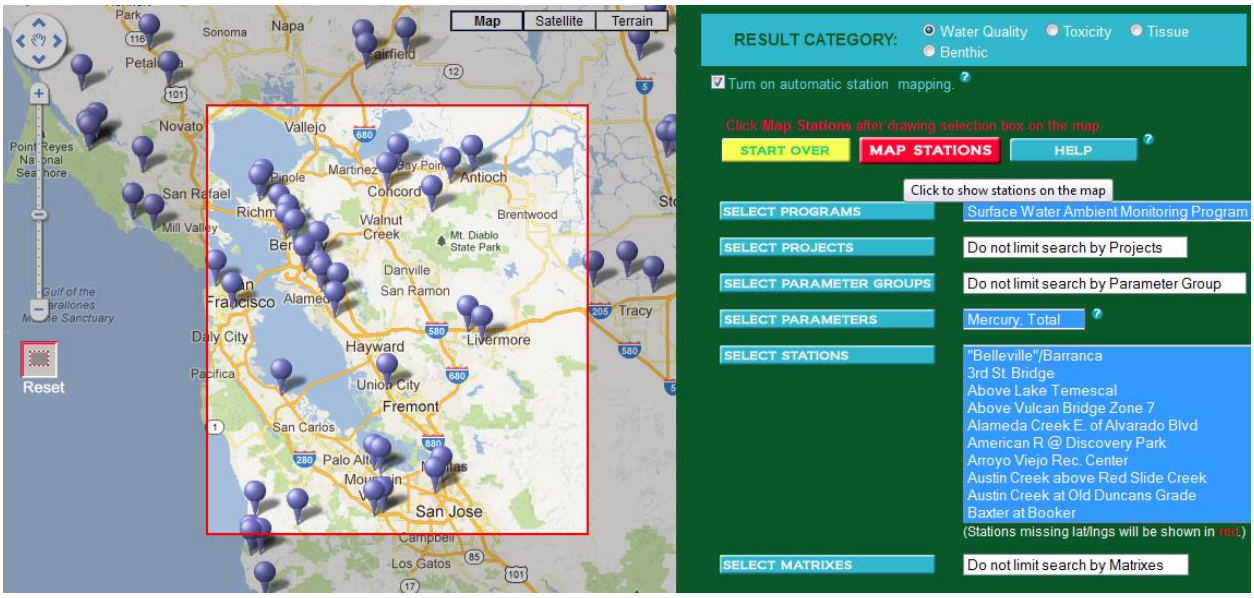
The date range of data available according to your search criteria will be displayed. Use the highlighted section to define any particular date range that you are interested in.



Step 3: Select Stations Using the Draw Tool

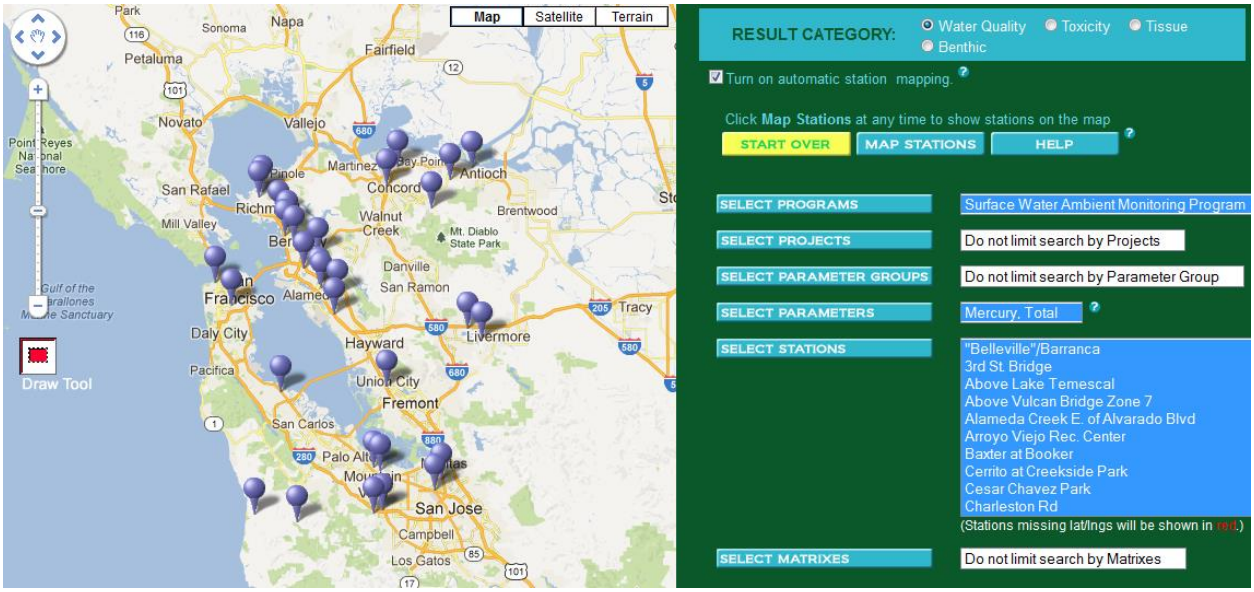
The last method available for isolating a particular set of data is the geographically oriented Draw Tool. Click on the red box labeled "Draw Tool" that is within the map section of the Online Query Tool. Once clicked, the map will be greyed out, and your cursor will become a cross. Left click with your mouse on the area where you would like to narrow your search. While holding the left button down on your mouse, draw a rectangle around the area on the map that you are interested in obtaining data from.

The Draw Tool allows you to select a subset of stations based on geographic location. The Draw Tool works best if the "Turn on automatic station mapping" option is selected prior to drawing your select box.



Stations from the Surface Water Ambient Monitoring Program, where total mercury data is available, are being displayed in the above picture. Using the Draw Tool, a selection of stations has been highlighted by drawing a box around them. At this stage, the Draw Tool box is now labeled with the word "Reset" and only the area that was selected is highlighted. If you make a mistake in drawing your rectangle, you can click the Reset button and it will revert to the Draw Tool allowing you to redraw your rectangle.

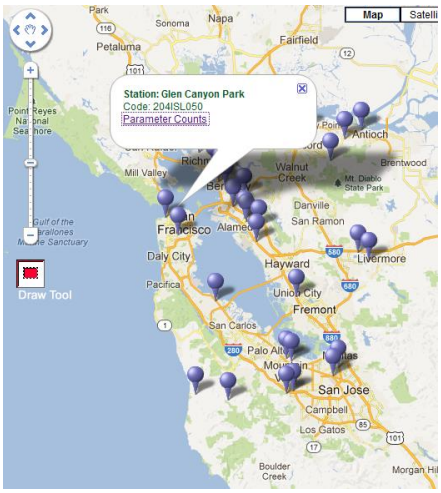
Once the area has been selected using the Draw Tool, click on the red “Map Stations” button. Once the “Map Station” button is clicked, the entire map is highlighted with only the stations within the area of interest remaining on the map. The stations within the select list for Stations are those remaining on the map, further narrowing down your selection criteria by geographic location.



Please note that the bottom tip of each pin icon needs to be included in the selection box in order for that station to be included.

Step 4: Utilizing Information On The Map

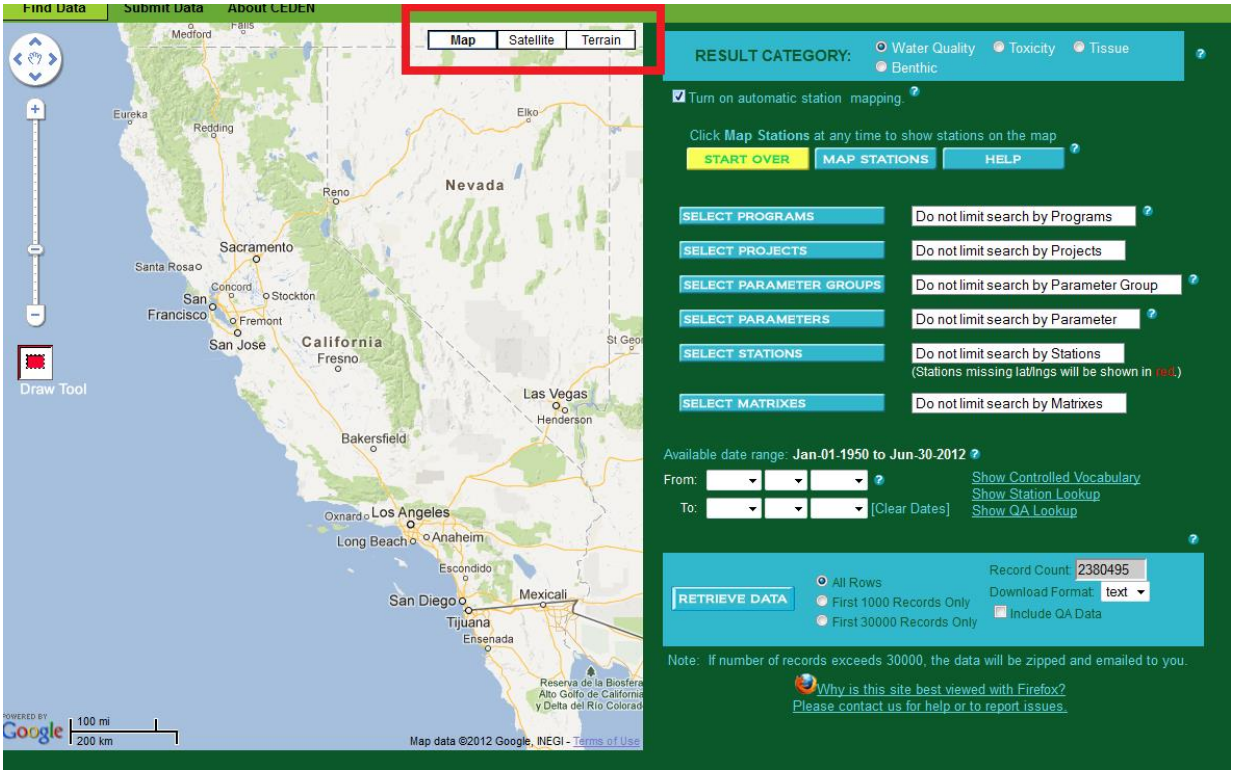
While the Query Tool is primarily a tool for downloading data into a spreadsheet or text file, some information is available on the map itself.



Clicking on the pin icon of any station will bring up a pop-up bubble detailing the station’s name, code and a link that indicates either “Parameter Counts” (Water Quality, Toxicity, Tissue, and Habitat) or “Organism Counts” (Benthic). Clicking on this link will bring up a new window that lists all of the parameters measured at the selected station, the date range during which they were measured, and the number of different results for each parameter.

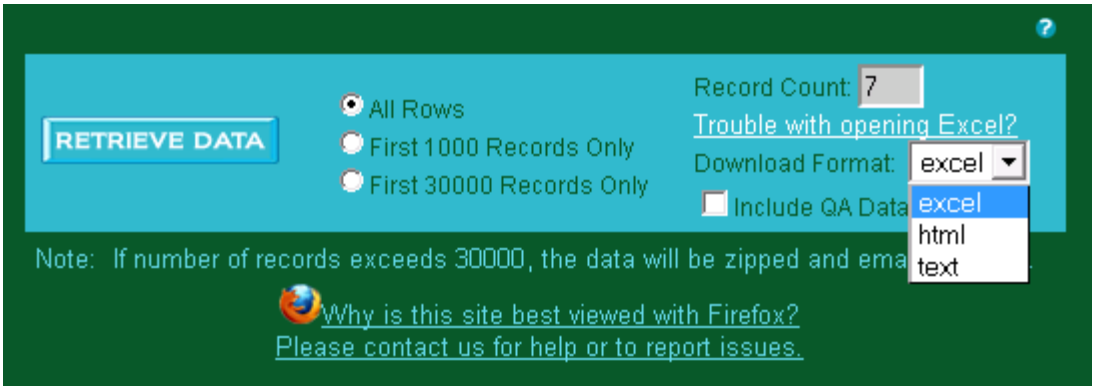
For Benthic stations, this window displays every Organism that was found at the selected station and the date range during which they were found. However, please note that the Result Count on this page is not the count of organisms; it is a count of results.

On the map, use the Map/Satellite/Terrain buttons to select different types of maps to display in the Query Tool.



Step 5: Retrieving Data

Once you have isolated the data set you would like to use, they are available for download in a variety of formats (depending on the number of records you are trying to retrieve).



The excel and text options will prompt you to download the respective files. The html option will display your results in a new browser window. The excel file will be a tab delimited file. The text file is delimited with the "|" character. The HTML option for viewing data is only available if

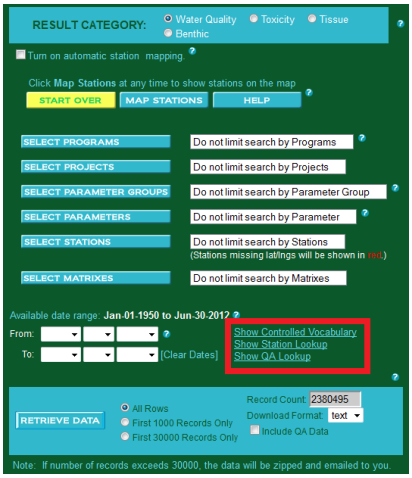
the data set is under 1,000 records. Any retrieval with greater than 30,000 records will result in the data set being emailed as a zipped text file. The email should not take any longer than 60 seconds to reach your inbox. Please check your spam folder first if you do not receive the file; if you have further issues, please contact Karl Jacobs: Karl.Jacobs@waterboards.ca.gov

This section also has a checkbox that allows you to include Quality Assurance data in your data query. Quality Assurance data includes laboratory samples (e.g. laboratory blanks, laboratory controlled spikes) and field samples (e.g. field blanks, field duplicates). If this box is not checked, only environmental results will be retrieved.

Helpful Tools

When looking at your data, there are some handy references for deciphering the various codes and abbreviations in the data. These can be found in the lower right hand corner of the Query Tool page.

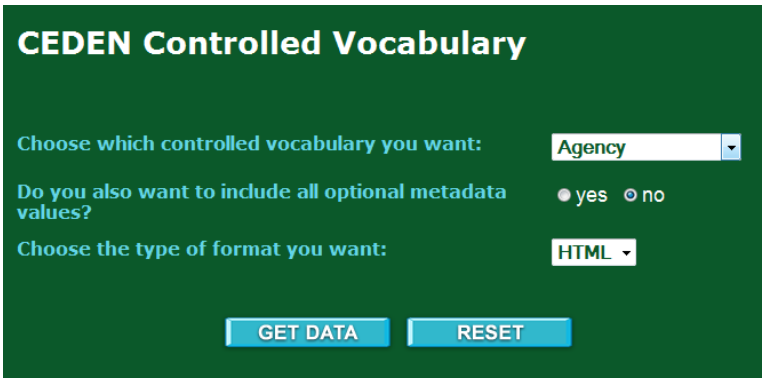
Show Controlled Vocabulary



Controlled Vocabulary refers to codes and associated definitions maintained within CEDEN LookUp lists to ensure comparability between and within data sets.

The "Show Controlled Vocabulary" link will open a new window. The first choice is a drop down menu to select which Controlled Vocabulary list you would like to retrieve. These options generally correlate with the column headings of the retrieved data.

The Station Lookup and QA Lookup links will take you directly to the controlled vocabulary lists for those two fields.

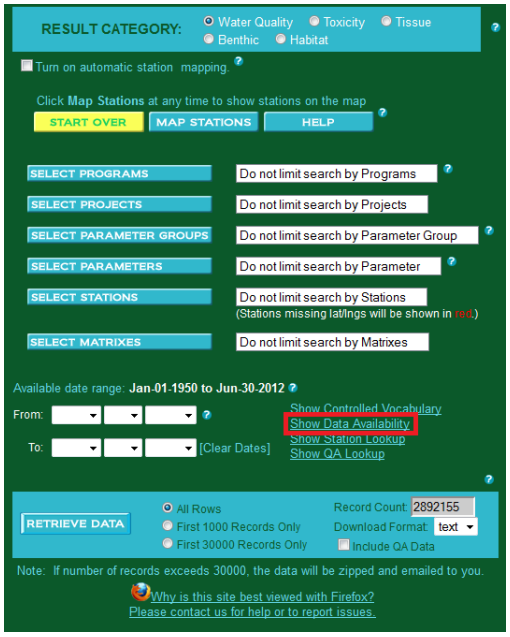


In the CEDEN Controlled Vocabulary pop up window is an option where you can also view the associated metadata for the controlled vocabulary you are interested in. Metadata are not required fields but may include additional information to help understand when and how to use CEDEN codes. For example, it may be important to know what county a station is in when searching for a common name such as Dry Creek. County is considered metadata for the Station controlled vocabulary.

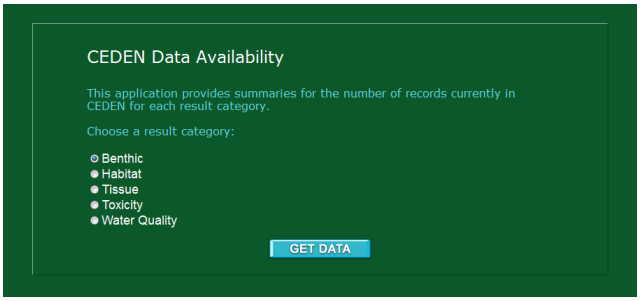
You may view the Controlled Vocabulary information in a new browser window (HTML choice) or download it as an excel file.

Show Data Availability

The Data Availability tool can provide some basic information on what is accessible through the Query Tool. To access the Data Availability tool, click on the "Show Data Availability" link as highlighted in red in the image on the right.



This will bring up a popup window:



In the pop up window for CEDEN Data Availability you can choose what Result Category you are interested in. This will show you a list of all the Programs/Projects that currently have data for that Result type and the number of records for each Program/Project. This tool does not provide parameter specific data. If you are looking for the availability of information with regards to a particular parameter, it is best to use the Query Tool as described in the Filtering Your Data section above.