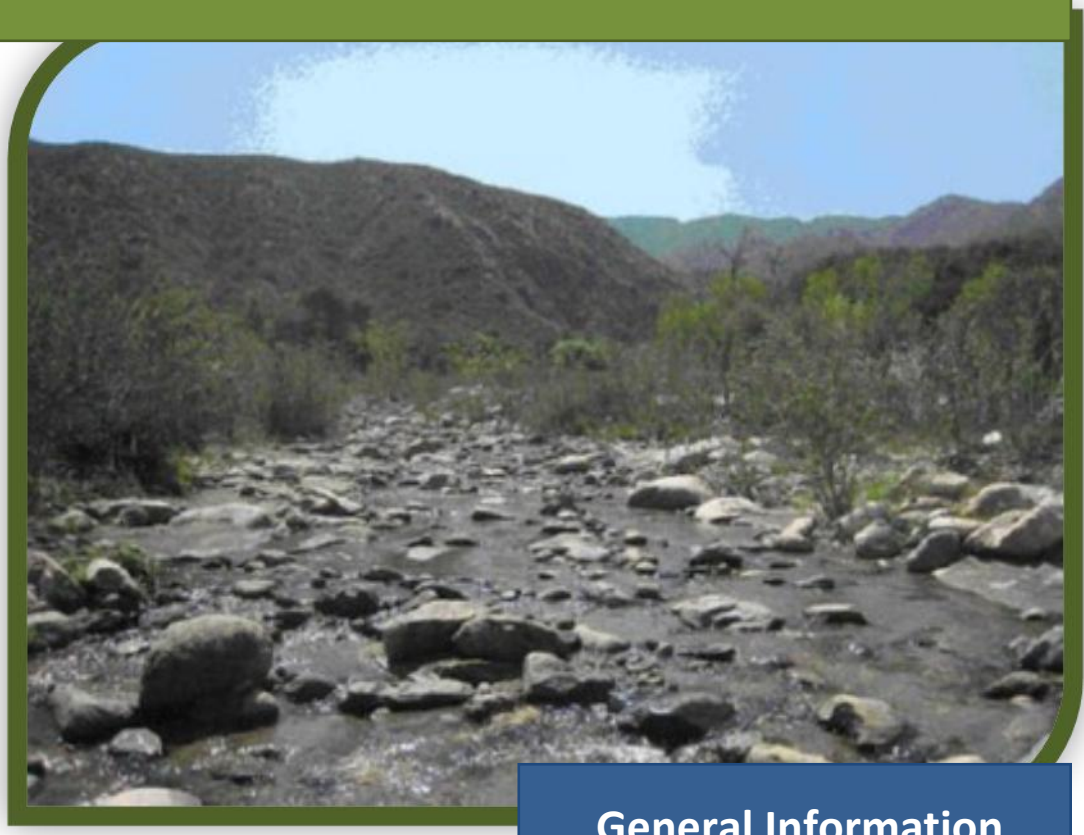
CEDEN

California Environmental Data Exchange Network



General Information

Updated January 9, 2012

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List of Acronyms

CEDEN	California Environmental Data Exchange Network
RDC	Regional Data Center
SWRCB	State Water Resources Control Board

List of Terms

Controlled Vocabulary	Controlled vocabulary refers to codes and associated definitions maintained within CEDEN to ensure comparability between and among data sets. Current controlled vocabulary can be found at: http://www.ceden.us/Metadata/ControlledVocab.php
Data Checker	Web-based automated tool that assists data submitters in examining their data sets against the required LookUp lists, formats and business rules. Each RDC maintains its own data checker.
LookUp Lists	Controlled vocabularies are maintained within the CEDEN database as "LookUp Lists" and are managed through individual RDCs to maintain comparability between RDCs and throughout data sets available through CEDEN.
CEDEN System	This includes all parts of the CEDEN data management system, including but not limited to the Regional Data Centers, centralized CEDEN database, data tools, and website.

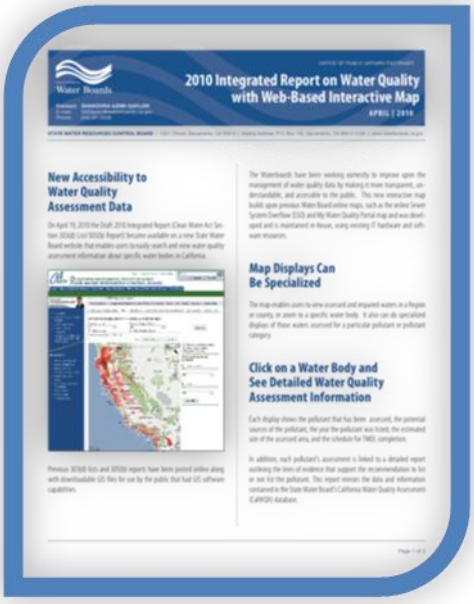
CEDEN's Mission Statement

Our mission is to simplify and improve access to California's water resource monitoring data by providing services to integrate, standardize and display data from the State's many diverse monitoring and data management efforts.

CEDEN's Goals

CEDEN has a number of goals, all of which involve obtaining and sharing as much water quality data for the state of California as possible by:

- Making it easy to share your water quality data with the CEDEN system.
- Providing unique tools that allow you to view your data with data collected by other monitoring groups within California.
- Making your data available through the CEDEN system for use by the public, agency staff, and researchers.
- Making your data available through other portals such as the Federal WQX (water quality exchange) system and for assessments in the *My Water Quality* portals.
- Making your data available to State Water Board personnel for developing statewide water quality assessments, total maximum daily load allocations, and reasonable potential analyses for discharge permits (to name a few).


2010 Integrated Report on Water Quality with Web-Based Interactive Map

New Accessibility to Water Quality Assessment Data

Map Displays Can Be Specialized

Click on a Water Body and See Detailed Water Quality Assessment Information

Data in CEDEN

Data stored within CEDEN encompasses a wide variety of environmental monitoring programs. These programs have been developed throughout California to answer a number of important questions and aid in developing policy regarding California's vast system of water bodies. Data in CEDEN include field, sediment and water column data collected from freshwater, estuarine, and marine environments. These data are important components of environmental assessments. Examples of data in CEDEN come from laboratory, physical and biological analyses and include data types associated with chemical, toxicological, field, bioassessment, invertebrate, fish, and bacteriological assay assessments.

How Does CEDEN Work?

CEDEN is a collaborative effort among many federal, state and local agencies in California who want to provide a centralized location for storing and retrieving environmental water quality data. The CEDEN system uses a Regional Data Center concept, which means that a local contact for a designated region of California (or an agency specializing in your type of monitoring program) is available to assist data providers in getting their data into the CEDEN system. Once the data is in the CEDEN centralized system, the data providers are still considered the owners of the data and can modify or make adjustments at any time. Currently, there are four Regional Data Centers within California: Central Coast Regional Data Center, Central Valley Regional Data Center, San Francisco Regional Data Center, and Southern California Regional Data Center.

Each Regional Data Center can provide participants with tools and instructions for getting their data into the CEDEN system. Regional Data Centers receive data from data generators, review the data for comparability with the CEDEN system, and transfer the data to a centralized CEDEN database. These data can then be accessed through the publicly available CEDEN website at: www.ceden.org.

How Do I Participate?

If you collect environmental data related to any water body in or adjacent to California and you wish to participate in CEDEN by sharing your data, the first step is to contact your local Regional Data Center. They can work with you and provide you with all of the information you need to get your data into the CEDEN system.

Instructions and data templates are available for the different data types stored within the CEDEN system. Once your data are in the proper template it will be put through a series of checks to ensure consistency in data quality and formatting within the CEDEN system. Afterwards, your Regional Data Center will transfer your data into the centralized CEDEN database. Although your data will then reside on the CEDEN servers, we still consider you, the data provider, to be the data owner. If for some reason modifications or adjustments need to be made to your data, you can work with you local Regional Data Center to ensure that the adjustments are made.

Which Data Center should I use?

CEDEN was designed to use Regional Data Centers as local points of contact for data providers throughout the state of California. These RDC's can guide you through the process of sharing your data and making it available to SWRCB personnel and the public.

Contact the CEDEN Program Manager, any of the Regional Data Centers, or the CEDEN Help Desk for information on which Regional Data Center would best serve you. The contact information for each is listed below.

CEDEN Program Manager
Steven Steinberg, PhD
714/755-3260/steves@sccwrp.org

Central Coast Regional Data Center
Mark Pranger
Moss Landing Marine Laboratories (MPSL-MLML)
7544 Sandholdt Road, Moss Landing, CA 95039
831/241-8178/pranger@mlml.calstate.edu

Central Valley Regional Data Center
Melissa Turner
Michael L. Johnson, LLC
632 Cantrill Drive, Davis, CA 95618
530/756-5200\mturner@mlj-llc.com

San Francisco Regional Data Center
Cristina Grosso
San Francisco Estuary Institute
4911 Central Avenue, Richmond, CA 94804
510/746-7371/cristina@sfei.org

Southern California Regional Data Center
Shelly Moore
Southern California Coastal Water Research Project
3535 Harbor Blvd., Ste 110, Costa Mesa, CA 92630
714/755-3207\shellym@sccwrp.org

CEDEN Help Desk
Stacey Swenson
831/771-4114\swamphelpdesk@mlml.calstate.edu

Data Submission Guidelines

These guidelines were created to assist you in both formatting and submitting your data to the CEDEN system. If you have any questions regarding these guidelines, please contact your Regional Data Center for help.

How to Submit Your Data

Here are the steps you need to follow to get your data into CEDEN:

- Contact your Regional Data Center - your RDC will ask you some general information questions about your project(s) to better direct and assist you.
- Obtain guidelines and data templates from your Regional Data Center for the data you wish to share.
- Work with your Regional Data Center to get any current or historical data into the CEDEN templates. Your Regional Data Center can also be a resource when setting up a new project or program that will generate data you wish to have available through CEDEN.
- Submit your data through the proper channels for your RDC, i.e. through online data submission/checker programs.
- View your data, along with data submitted by others, by querying the CEDEN website.

Minimum Data Templates

The role of your Regional Data Center is to provide you with a local contact with regard to your data, ensuring that you feel connected to the process and allowing you to retain ownership of your data.

The CEDEN data templates have been designed to make the data submission process as simple as possible while ensuring comparability across monitoring programs and data types. In addition, these templates have been developed in collaboration with State Water Resources Control Board personnel to ensure that the templates store necessary information essential for statewide water quality assessments. Sharing your data allows the State Water Board to use all available data to make informed decisions to protect and restore water quality.

Your local Regional Data Center can assist you with obtaining any data templates you may need and also assist you with getting your data into the correct format. The role of your Regional Data Center is to provide you with a local contact with regard to your data, ensuring that you are connected to the process and allowing you to retain ownership of your data.

The online data submission process includes specific checks on your data to ensure both data integrity and comparability with other data sets. Once your data has passed all of our checks it will be uploaded into the centralized CEDEN database and become available through the CEDEN website (www.ceden.org).

How are the data checked for quality assurance and comparability?

CEDEN and the Regional Data Centers strive to ensure data quality and comparability for all data. Data checkers employed by each Regional Data Center include audit programs that perform data quality assessments on all submitted data. The data audits will produce questions that are often easily addressed; however, if more complicated questions arise, your Regional Data Center is there to help. Below are a few of the more general audits that are performed on your data before it goes into CEDEN:

- Checks the format of the data submitted to the data checker matches the CEDEN template(s).
- Checks required fields are not left blank.
- Finds duplicate records.
- Ensures a proper match across tables. For example, submitted chemistry files are reviewed to verify that both the batch information table and chemistry results table reflect similar lab batch IDs.
- Ensures certain fields have values that match values in the controlled vocabulary (LookUp) lists.