

California Drinking Water Quality Data and the Human Right to Water

Dataset Descriptions for March 23, 2023 Workshop

The table below contains a list of drinking water datasets that we will explore and discuss during the workshop. In addition to the names and brief descriptions of each dataset, it contains links to the data dictionaries and datasets themselves. All of these data resources can be found here: [Drinking Water - Open Environmental Data Project - March 23, 2023 Workshop - Datasets - California Open Data](#).

These datasets can be related using the water system ID field. To link the water quality results to a water system, you can directly use the water system ID through the facility ID fields (Facility Dataset). Violations are directly associated with a water system and an enforcement action. Violations are not directly linked to water quality monitoring data, but include a field describing the analytes or parameters associated with the violation. All monitoring data is associated with a facility, but not all facilities are used as a water source delivered in the distribution system. Attention should be given to monitoring data associated with a facility type “DST” (Distribution). A spatial file with the service areas is also included so the data can be represented spatially. For examples of how these datasets have been related and visualized, see the Water Board’s [Needs Analysis](#) or Community Water Center’s [Drinking Water Tool](#).

A staff member from the California Water Board will provide more information about these data and the Board’s data management processes at the beginning of the workshop. If you have trouble accessing any of these datasets, a staff member will be available 30 minutes prior to the workshop (9:30–10am PST) to help troubleshoot. Please contact Katie Hoeberling (katie@openenvironmentaldata.org) if you plan to join early for this reason.

Dataset	Description	Data Dictionary	Link to Dataset
Drinking Water: Public Water System Information	A curated dataset of information for all California public water systems (PWS), including name, location and some general information for each. The data source is a public web portal to view PWS location, facilities, sources, and samples (https://sdwis.waterboards.ca.gov/PDWW/). <i>Note: Only systems meeting the definition of a public water system (CHSC §116275(h)) are included in this table. State small water systems (CHSC §116275 (n)) and individual homes are excluded.</i>	Drinking Water - Public Water System Information - DWW - Data Dictionary - California Open Data Water System Details (ca.gov)	Drinking Water - Public Water System Information - Datasets - California Open Data

Drinking Water: Facilities	A water system facility can be any location or facility related to the PWS. Examples include distribution systems, treatment plants, wells, and the like. The Water System Facilities dataset includes basic water system facility information Water System No., Water System Name, Principal County Served, Status, Federal and State Type, Source, and Activity Date.	Water System Facilities (ca.gov) State Asgn ID No, Type, Facility Name, Activity Status, Activity Reason Text, and Activity Status Date. Sampling Points: Water systems typically collect samples of raw (untreated) or treated water in wahttps://data.ca.gov/dataset/drinking-water-open-environmental-data-project-march-23-2023-workshopter system facilities at specific locations within the facility called sampling points, though samples may also be collected at your kitchen tap or water source. The <i>Sampling Points</i> display box shows information about each of the water system facility's Sampling Points, (including its Location and Type). Facility Annual Operating Period: The period during which the water system facility operates over a specified period of time, as defined by a starting month and day (Start MM/DD), an ending month and day End MM/DD), and an effective period. For example, a water system facility may operate seasonally from January 15 to March 15. Two years later, the water system notifies the state that the facility no longer operates during that seasonal period. The Effective Begin date for the January 15-March 15 period would be January 1, 2003, and the Effective End date would be December 31, 2004. Facility Annual Operating Periods may not overlap. See more detailed descriptions here: Start Month, Start Day, End Month, End Day, Effective Begin Date, Effective End Date.	Drinking Water - OEDP - March 23, 2023 Workshop - Datasets - California Open Data
Drinking Water: Laboratory Water Quality Results	The Division of Drinking Water requires laboratories to submit water quality data directly. The data is received and published twice monthly on the Division's water quality portal.	Data Dictionary – Supporting file for SDWIS.CSV files (last Update December 24, 2021). Word file WQM Documentation.docx provides additional description and explanation of the individual files available for downloading.	EDT Library and Water Quality Analyses Data and Download Page California State Water Resources

			Control Board Drinking Water - OEDP - March 23, 2023 Workshop - Datasets - California Open Data
Drinking Water: Violations and Associated Enforcement	Violations are issued for a PWS when there is a failure to meet certain state/region or federal drinking water regulations. This includes a failure to collect a sample (called a monitoring violation); failure to report the analytical results from a sample that was collected (a reporting requirement); delivery of drinking water that exceeds a maximum contaminant level (a Maximum Contaminant Level violation); and other failures. On the Violations page you can view basic water system information, such as Water System No., Water System Name, Principal County Served, Status, Federal and State Type, Source, and Activity Date. Note that some of these violations may have been resolved and/or returned to compliance. Click on the violation to view more information on its compliance status. The dataset includes Group Violations and Individual Violations: (1) Group Violations reference Analyte Group Codes (this distinguishes Violation Groups from Individual Violations). Violation Groups are convenient to use when the same violation applies to a group of analytes. You can view the list of Violation Groups for this water system using the	Violation Detail (ca.gov) Violation No.: Consists of the four-digit fiscal year plus a unique number. The status of the violation can be one of the following: P Preliminary V Validated R Rejected D Deleted Violation Type: A two-digit code that categorizes a U.S. Environmental Protection Agency rule violation. Violation Name: Describes the violation type. Analyte Group Code: Enter the Analyte Group Code to access the Analyte Group Selection List. An example of where you might create a violation or sample schedule group would be when you have a monitoring requirement or violation for the 21 regulated volatile organic compounds (VOC). Analyte Group Name: The Name assigned to the Analyte Group	Drinking Water - OEDP - March 23, 2023 Workshop - Datasets - California Open Data

	fields displayed when following the link from field Analyte Group Code. (2) Individual Violations reference a single Analyte for the specified water system. These violations are not “hidden violations”, i.e., they are not violations associated with a Violation Group. You can view the list of individual violations for this water system using the following fields: Violation No, Determination Date, Violation Type, Violation Name, Violation Category, Status, Analyte Code, Analyte Name, Compliance Period, Begin and End Dates, Violation Period, Begin and End Dates, Water System Facility, State Asgn ID, Water System Facility Name, Analysis Result. A violation may be related to one or more enforcement actions, i.e., formal and informal actions taken against a water system due to a violation. These may include requirements that must be met in order to rectify a failure to perform under the PWS Supervision program. They are typically issued by the primacy agency but may be issued by its representative or the U.S. Environmental Protection Agency. Examples include administrative and civil/criminal legal actions, warning notices, citations, temporary injunctions, restraining orders, and penalties.	Water System Facility State Asgn ID: State Asgn ID is the state-assigned identification number that uniquely identifies each water system facility within a public water system. Water System Facility Name: The Water System Facility Name is the name assigned by the primacy agency to the water system facility. Analyte Code: Analytes are contaminants and other elements (some of which are not necessarily contaminants). Analyte Code is the standard code used by the U.S. Environmental Protection Agency and the states to represent analytes in the national database. Each analyte has a unique code assigned for reference in compliance determination. Analyte Name: Analytes are contaminants and other elements (some of which are not necessarily contaminants). Analyte Name is the name of the analyte. The following information can be viewed about enforcement actions related to the violation in the Enforcement Action(s) display box: Enforcement Action No, Action Type, Name, Status, Date	
Drinking Water: SAFER Failing and At-Risk Drinking Water Systems	Human Right to Water Systems (HR2W). Community Water Systems (CWSs) and Non-Community Water Systems (NCWSs) that serve schools and daycares. Those systems were identified to be out of compliance for consistently failing to meet primary drinking water standards. The HR2W list criteria was expanded in March 2021 to better align with statutory definitions of what it means for a water system to “consistently fail” to meet primary drinking water standards.	Information for Public Drinking Water Systems California State Water Resources Control Board	Drinking Water - OEDP - March 23, 2023 Workshop - Datasets - California Open Data

Drinking Water: System Service Area Boundaries	This is a spatial file format (SHP) of the service area boundaries for drinking water systems, including wholesalers and retailers.		Drinking Water - OEDP - March 23, 2023 Workshop - Drinking Water System Service Area Boundaries (SABL) - California Open Data
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