

Interactive Web Applications that accept user input for Station ID(s), Group ID(s) support **AUTO-COMPLETE** feature that generates a drop-down list of possible matches for partial user entries.

API DOCUMENTS WEB-SERVICES DATA DOWNLOAD APPS VERSION 3.4

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Note: All Tabular data views support PDF, CSV and Excel downloads. Screen captures in this document show partial data which may not be current.

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ALLOWED HTTPS REQUESTS

POST: Update resource

GET: Get a resource or list of resources

WEB SERVICES OUTPUT DOWNLOAD FORMATS SUPPORTED

JSON, CSV and EXCEL.

DESCRIPTION OF USUAL SERVER RESPONSES

- 200 **OK** - the request was successful (some API calls may return 201 instead).
- 201 **Created** - the request was successful, and a resource was created.
- 204 **No Content** - the request was successful but there is no representation to return (i.e. the response is empty).
- 400 **Bad Request** - the request could not be understood or was missing required parameters.
- 401 **Unauthorized** - authentication failed or user doesn't have permissions for requested operation.
- 403 **Forbidden** - access denied.
- 404 **Not Found** - resource was not found.
- 405 **Method Not Allowed** - requested method is not supported for resource.
- 500 **Internal Server Error**

NAVIGATION BUTTONS TO SCROLL THROUGH OUTPUT DATA-VIEW

Earlier: To scroll through the hourly data for prior 12 hours with each click. Similarly, 30 days of daily data and 24 months of monthly data.

Later: To scroll back 12 hours of hourly data towards current data with each click. Similarly, 30 days of daily data and 24 months of monthly data.

Latest: shows the most current data.

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OUTPUT DATA-VIEW FOOTER BUTTONS FOR DOWNLOAD OPTIONS

Copy: To copy the data view into clipboard for paste.

Excel: Download data in the excel format for consumption.

CSV: Download data in CSV format for consumption.

PDF: Generate and download a PDF report.

DATA STRUCTURES FOR SPECIFIED DATE RANGE

Parameter start date: The Date starting point, inclusive. Both date and time are used.

Can be null.

Parameter end date: The last date for data to be returned, inclusive. Both date and time are used. Can be null.

Parameter sensorNums: The String list of sensor numbers as a comma delimited string.

Can be null.

Parameter stations: The String list of stations as a comma delimited string values. Can be null.

GET THE MATCHING STATIONS

Parameter stationId The String station ID to match.

Parameter durCode The String DurCode like M or D to match.

Return the List of matching stationData objects.

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HISTORICAL DATA SELECTOR

<http://cdec.water.ca.gov/dynamicapp/selectQuery>

selectQuery application facilitates to query real-time, daily and monthly data using the same form. It shows data in Pacific Standard time in HTML tabular views and supports download in PDF, CSV and Excel formats.

Historical Data Selector

| | |
|--|--|
|  | <p style="text-align: center;">HTML Data View</p> <p>To retrieve historical data for web display * Hourly Data * Daily Data * Monthly Data</p> <ol style="list-style-type: none">1. Please use auto complete form to select Station ID2. Please select sensor from the drop down list3. Enter a Start Date or an End Date. Leave Start Date blank for one month back of records. Leave End Date blank to retrieve records up to present.4. Click the "Get Data" button only once. <p>Station ID <input type="text"/></p> <p>Sensor Number: <input type="text"/></p> <p>Start Date <input type="text" value="2019-05-09"/> <input type="button" value="x"/> <input type="button" value="calendar"/></p> <p>End Date <input type="text" value="2019-05-10"/> <input type="button" value="x"/> <input type="button" value="calendar"/></p> <p style="text-align: right;"><input type="button" value="View Data"/></p> |
| <p>General Data Download</p> | <p>To get data in JSON or Comma-Separated Value (CSV) format: Please use the form: Webservice JSON and CSV Fill in a Station ID and click "View JSON Data" or "Download CSV Data Now". Leave either date field blank for beginning or end of record.</p> <p>NOTE: Times in the output rows will reflect the current local time (California/Los Angeles). Since it is currently daylight savings time, all the data rows returned will be shown as PDT</p> |

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WEBAPP – GENERAL DATA DOWNLOAD

<http://cdec.water.ca.gov/dynamicapp/wsSensorData>

The General Data download application facilitates the download of current and historical data for single station or multiple stations (separated by comma). Same application helps to download real-time, 15 minutes, event, daily and monthly data. Supports JSON, CSV and Excel download formats.

➔ CDEC Webservice JSON and CSV


| | |
|--|---|
|  | <h3 style="text-align: center;">General Data Download</h3> <p style="text-align: center;">Webservice Form for General Data Download * Real-time Data * Daily Data * Monthly Data</p> <p>To get data in JSON and CSV formats:</p> <ol style="list-style-type: none">1. Fill in the blanks (New feature auto-complete can help select station and Sensor from drop down lists and click "View JSON Data or View CSV Data".2. Single CDEC station or multiple stations are accepted separated by comma (e.g. ORO, FOL, SHA).3. In case of Multiple Stations, the drop down list will only show the common sensors: <p>Station ID(s) <input type="text"/> comma delimited</p> <p>Sensor Number: <input type="text"/></p> <p>Start Date <input type="text" value="2019-05-09"/> <input type="button" value="x"/> <input type="button" value="calendar"/></p> <p>End Date <input type="text" value="2019-05-10"/> <input type="button" value="x"/> <input type="button" value="calendar"/></p> <p><input type="button" value="View JSON Data"/> <input type="button" value="View CSV Data Now"/> <input type="button" value="Download Excel (.xlsx) Data Now"/></p> |
| | <p>General Data</p> <p>To get data in JSON or Comma-Separated Value (CSV) format: Fill in a Station ID and click "View JSON Data" or "Download CSV Data Now". Leave either date field blank for beginning or end of record.</p> <p>NOTE: Data is displayed in 4-digit year format. Dates, times, and output will always be Pacific Standard Time.</p> |

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WEBAPP – SENSOR GROUP DATA DOWNLOAD

➔ CDEC Sensor Group JSON and CSV Webservices

| | |
|---|--|
|  | <h3 style="text-align: center;">Group Data Download</h3> <p style="text-align: center;">Webservices Form for Group Data Download * Hourly Data * Daily Data * Monthly Data</p> <p>To get data in JSON or Comma-Separated Value (CSV) format:</p> <ol style="list-style-type: none">1. Please click here to lookup the SENSOR GROUP IDs currently available:2. Fill in the blanks (New feature auto-complete can help select Sensor Group IDs from drop down list. Click "JSON Data" or "CSV Data" after selecting the radio button for Download or View. Leave either date field blank for beginning or end of record. <p>NOTE: Dates in the output are in Pacific Standard Time.</p> <p>Group ID <input type="text"/></p> <p>Start Date <input type="text" value="2019-05-09"/> <input type="button" value="X"/> <input type="button" value="Calendar"/></p> <p>End Date <input type="text" value="2019-05-10"/> <input type="button" value="X"/> <input type="button" value="Calendar"/></p> <p><input type="button" value="JSON Data"/> <input type="button" value="CSV Data"/> <input checked="" type="radio"/> Download <input type="radio"/> View</p> |
| | <p>General Data</p> <p>Fill in a Group ID and click "JSON Data" or "CSV Data" after selecting the radio button for Download or View. Leave either date field blank for beginning or end of record.</p> <p>NOTE: Dates in the output are in Pacific Standard Time.</p> |

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LOOKUP STATION META DATA

<http://cdec.water.ca.gov/dynamicapp/staMeta>

To get information about a CDEC station or to find a CDEC Station ID:

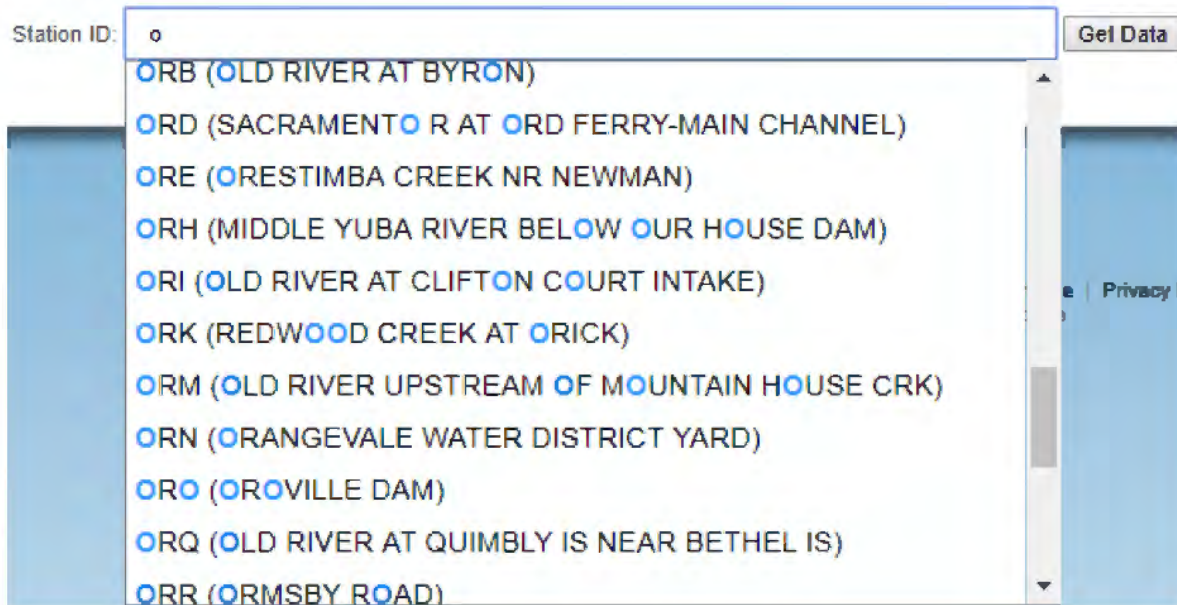
Station Meta data application shows all meta data related to a CDEC station as selected by users.

1. Specify three or more letters to search for all station names containing them.
2. Specify one or two letters to retrieve Station IDs that **begin** with what you specify.
3. Case is not significant.
4. Click the "**Get Data**" button only once.

Screen Captures:

Real-Time Event / Hourly Data

1. Enter part of a CDEC Station Name or a three-letter CDEC Station ID.
2. Specify four or more letters to search for all Station Names containing those letters.
3. Specify one or two letters to search for all Station IDs that begin with what you specify.
4. Click the "Get Data" button only once.



Station ID:

Get Data

- ORB (OLD RIVER AT BYRON)
- ORD (SACRAMENT O R AT ORD FERRY-MAIN CHANNEL)
- ORE (ORESTIMBA CREEK NR NEWMAN)
- ORH (MIDDLE YUBA RIVER BELOW OUR HOUSE DAM)
- ORI (OLD RIVER AT CLIFTON COURT INTAKE)
- ORK (REDWOOD CREEK AT ORICK)
- ORM (OLD RIVER UPSTREAM OF MOUNTAIN HOUSE CRK)
- ORN (ORANGEVALE WATER DISTRICT YARD)
- ORO (OROVILLE DAM)
- ORQ (OLD RIVER AT QUIMBLY IS NEAR BETHEL IS)
- ORR (ORMSBY ROAD)

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OROVILLE DAM

[Map of surrounding area](#)

| | | | |
|-----------------|--|-----------------|-----------|
| Station ID | ORO | Elevation | 900.0 ft |
| River Basin | FEATHER R | County | BUTTE |
| Hydrologic Area | SACRAMENTO RIVER | Nearby City | OROVILLE |
| Latitude | 39.54° | Longitude | -121.493° |
| Operator | CA Dept of Water Resources/O&M Oroville Field Division | Data Collection | MULTIPLE |

Additional types of information: | [Dam Information](#) | [Reservoir Information](#)

The following data types are available online. Select one of the links below to retrieve recent data.

| Sensor Description | Sensor Number | Duration | Plot | Data Collection | Data Available |
|--------------------------------------|---------------|-----------|-----------|-------------------|-----------------------|
| EVAPORATION, LAKE COMPUTED CFS, CFS | 74 | (daily) | (EVAP) | DATA XCHG-DWR O&M | 10/01/1994 to present |
| FULL NATURAL FLOW, CFS | 8 | (daily) | (FNF) | COMPUTED | 04/21/1985 to present |
| PRECIPITATION, ACCUMULATED, INCHES | 2 | (daily) | (RAIN) | COMPUTED | 10/01/2003 to present |
| PRECIPITATION, INCREMENTAL, INCHES | 45 | (daily) | (PPT INC) | DATA XCHG-DWR O&M | 01/01/1987 to present |
| PRECIPITATION, INCRMNT 4A-4A, INCHES | 203 | (daily) | (PPTINC4) | DATA XCHG-NWS | 10/01/2013 to present |
| RES, ABV TOP OF CONSERV STOR, AF | 200 | (daily) | (ABV TOC) | COMPUTED | 01/01/2010 to present |
| RESERVOIR ELEVATION, FEET | 6 | (daily) | (RES ELE) | COMPUTED | 02/14/1985 to present |
| RESERVOIR INFLOW, CFS | 76 | (daily) | (INFLOW) | DATA XCHG-DWR O&M | 01/01/1994 to present |
| RESERVOIR OUTFLOW, CFS | 23 | (daily) | (OUTFLOW) | DATA XCHG-DWR O&M | 01/05/1987 to present |
| RESERVOIR STORAGE, AF | 15 | (daily) | (STORAGE) | COMPUTED | 02/13/1985 to present |
| RESERVOIR, STORAGE CHANGE, AF | 22 | (daily) | (RES CHG) | COMPUTED | 10/01/1993 to present |
| RESERVOIR, TOP CONSERV STORAGE, AF | 94 | (daily) | (TOC STO) | DATA XCHG-DWR O&M | 10/20/2000 to present |
| RESERVOIR, SCHEDULED RELEASE, CFS | 7 | (event) | (REL SCH) | MANUAL ENTRY | 10/01/1995 to present |
| BATTERY VOLTAGE, VOLTS | 14 | (hourly) | (BAT VOL) | SATELLITE | 01/01/1995 to present |
| DISCHARGE, CONTROL REGULATING, CFS | 85 | (hourly) | (RIV REL) | DATA XCHG-DWR O&M | 02/05/1998 to present |
| PRECIPITATION, ACCUMULATED, INCHES | 2 | (hourly) | (RAIN) | SATELLITE | 01/01/1984 to present |
| RESERVOIR ELEVATION, FEET | 6 | (hourly) | (RES ELE) | SATELLITE | 01/01/1984 to present |
| RESERVOIR INFLOW, CFS | 76 | (hourly) | (INFLOW) | DATA XCHG-DWR O&M | 01/23/1997 to present |
| RESERVOIR OUTFLOW, CFS | 23 | (hourly) | (OUTFLOW) | DATA XCHG-DWR O&M | 02/06/1998 to present |
| RESERVOIR STORAGE, AF | 15 | (hourly) | (STORAGE) | COMPUTED | 01/01/1984 to present |
| RESERVOIR STORAGE, AF | 15 | (monthly) | (STORAGE) | MANUAL ENTRY | 10/01/1987 to present |

Station comments:

| | |
|------------|--|
| 04/16/2019 | Transmission equipment repaired. Hourly data is back online as of 4/15/2019 10:00. |
| 04/15/2019 | Beginning 4/12/2019 16:00, reservoir elevation and storage are not transmitting correctly. Data is being flagged automatically. |
| 12/26/2018 | Reservoir elevation and storage reporting correctly starting 12/24/2018 at 10:00. |
| 12/21/2018 | Beginning 12/20/2018 14:00 reservoir elevation and storage are not transmitting correctly. Data is being flagged automatically. |
| 02/23/2017 | Outflow from Oroville includes all releases from the Oroville Dam (i.e.: Hyatt, spillway, low flow outlet), while River Release (RIV REL) pertains to the Oroville Dam Complex as a whole which includes any releases from the Diversion Dam gates and Thermalito Afterbay River Outlet. |
| 12/31/2014 | Sensor for reservoir elevation has been repaired. Data from 12/30/14, 0900 is valid. |
| 12/30/2014 | Hourly elevation and storage data is invalid since 12/25/2014. Data is being flagged. |

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CDEC STATION SEARCH

<http://cdec.water.ca.gov/dynamicapp/damSearch>

To list CDEC Stations by station name, sensor type, duration, status, geographic location, nearby city, river basin, hydrologic area, county, or operator:

1. Specify a three-letter CDEC [Station ID](#) or partial Station Name, **or** a Sensor Type, **or** a Duration Type, **or** an Status Type, **or** a pair of Latitude/Longitude values, **or** an Elevation values, **or** a Nearby City Name, **or** a River Basin Name, **or** a Hydrologic Area Name, **or** a County Name, **or** an Operator Name.
2. Select more criteria for a narrower search.
3. Select how you want the search results displayed.
4. Click the **Search** button only once.

Screen Shot:

| Select One Or More Items For Search | | |
|-------------------------------------|-------------------------|--|
| Search By | Search Criteria | Where Equivalent To Search Key |
| <input type="checkbox"/> | Station ID/Name: | <input type="text"/> |
| (And) <input type="checkbox"/> | Sensor Type: | % UP 01 (211) ▼ |
| (And) <input type="checkbox"/> | Collection Type: | NONE SPECIFIED ▼ |
| (And) <input type="checkbox"/> | Duration: | <input checked="" type="radio"/> Any Duration <input type="radio"/> Event <input type="radio"/> Hourly <input type="radio"/> Daily <input type="radio"/> Monthly |
| (And) <input type="checkbox"/> | Status: | <input checked="" type="radio"/> Any status <input type="radio"/> Active stations only <input type="radio"/> Discontinued stations only |
| (And) <input type="checkbox"/> | Longitude: Latitude: | >= <input type="text"/> And <= <input type="text"/> (example: 120.25) >= <input type="text"/> And <= <input type="text"/> (example: 39.75) |
| (And) <input type="checkbox"/> | Elevation: | >= <input type="text"/> -5 And <= <input type="text"/> 99000 (example: 500 feet) |
| (And) <input type="checkbox"/> | Nearby City: | <input type="text"/> |
| (And) <input type="checkbox"/> | River Basin: | NONE SPECIFIED ▼ |
| (And) <input type="checkbox"/> | Hydrologic Area: | NONE SPECIFIED ▼ |
| (And) <input type="checkbox"/> | County: | NONE SPECIFIED ▼ |
| (And) <input type="checkbox"/> | Operator ID/Name: | Alameda County ▼ |
| Display Sorted By | Station ID ▼ | <input type="button" value="Search For CDEC Stations"/> |

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LOOKUP TABLES AND URL REFERENCES

FOR MORE LISTING REPORTS PLEASE REFER TO STATIONS PAGE

<http://cdec.water.ca.gov/stainfo.html>

DATA FLAG DEFINITIONS

<http://cdec.water.ca.gov/reportapp/javareports?name=FlagList>



Data Flag Definitions

July 22, 2019

Report generated: July 23, 2019 16:04

| DATA FLAG DEFINITIONS SORTED BY DATA FLAG | |
|---|-------------------------------|
| DATA FLAG | FLAG DESCRIPTION |
| | No Flag |
| A | Precipitation accumulation |
| L | Waiting for observer response |
| N | Error in data |
| e | Estimated |
| q | New rating table |
| r | Revised |
| s | New shift started |
| t | Trace of precipitation |
| v | Out of Valid Range |

Sensor Definitions

<http://cdec.water.ca.gov/reportapp/javareports?name=SensList>

Reservoirs Information

<http://cdec.water.ca.gov/reportapp/javareports?name=ResInfo>

Active Daily Reporting Stations

<http://cdec.water.ca.gov/reportapp/javareports?name=DailyStations>

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Active Monthly Unimpaired Flow Stations

<http://cdec.water.ca.gov/reportapp/javareports?name=MonthlyFNF>

Active Snow Depth sensors in California

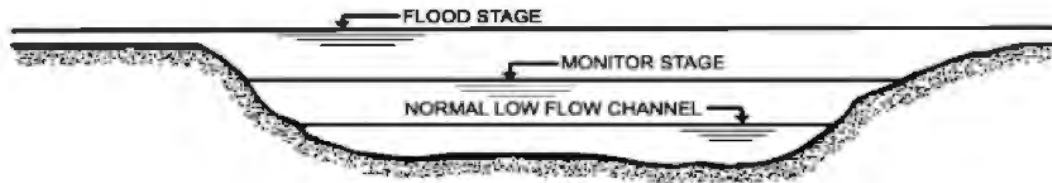
<http://cdec.water.ca.gov/reportapp/javareports?name=SnowDepth>

River Stage Definitions

<http://cdec.water.ca.gov/stageInfo.html>

➔ River Stage Definitions

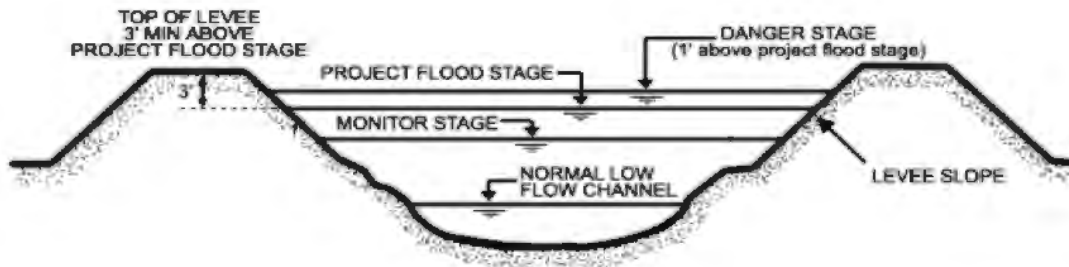
MONITOR - FLOOD - DANGER STAGES



CROSS SECTION - TYPICAL NON-LEVEED STREAM

MONITOR STAGE - The Stage at which initial action must be taken by concerned interests (livestock warning, removal of equipment from lowest overflow areas, or simply general surveillance of the situation). This level may produce overbank flows sufficient to cause minor flooding of low-lying lands and local roads.

FLOOD STAGE - The Stage at which overbank flows are of sufficient magnitude to cause considerable inundation of land and roads and/or threat of significant hazard to life and property.



CROSS SECTION-TYPICAL LEVEED STREAM

MONITOR STAGE - The Stage at which patrol of flood control project levees by the responsible levee maintaining agency becomes mandatory, or the Stage at which flow occurs into bypass areas from project overflow weirs.

PROJECT FLOOD STAGE - The Stage at which the flow in a flood control project is at maximum design capacity (U.S. Corps of Engineers "Project Flood Plane"). At this level there is a minimum freeboard of 3 feet to the top of levees.

DANGER STAGE - The Stage at which the flow in a flood control project is greater than maximum design capacity and where there is extreme danger with threat of significant hazard to life and property in the event of levee failure. This is generally 1 foot above project flood stage.

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