Introduction to Open and Transparent Water Data Publication at Department of Water Resources

California Water and Environmental Modeling Forum
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AB 1755 Legislation in a Nutshell

- Enacted September 2016, in recognition of the need for an authoritative, open-access data platform
- Requires publication of State-held water and ecological data on statewide platform
- First of its kind in the nation
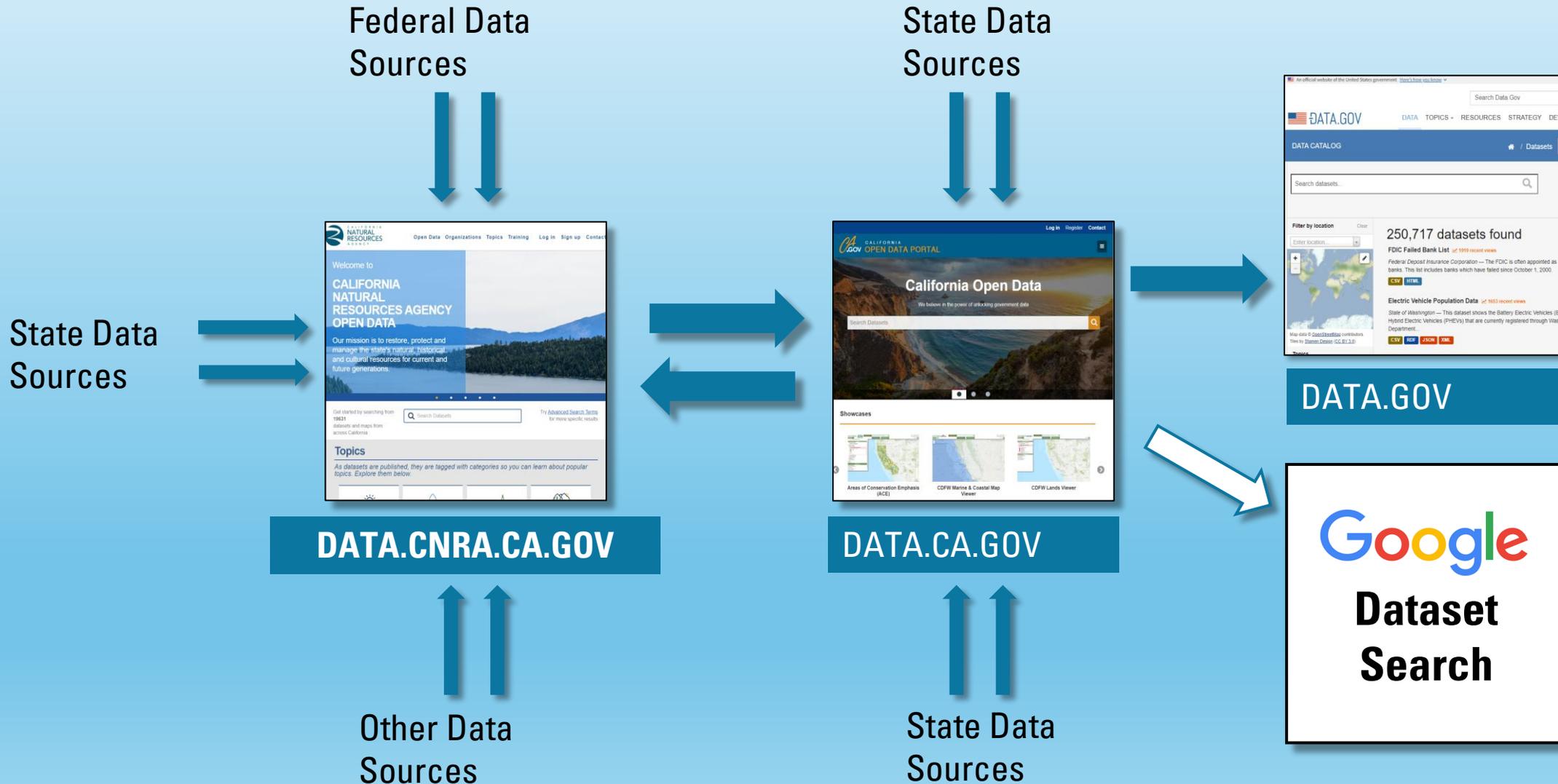
What Are FAIR Principles?

<u>F</u>indable – Metadata and data should be easy to find for both humans and computers.

<u>A</u>ccessible – Once the user finds the required data, they need to be able to access it.

<u>I</u>nteroperable – The data need to interoperate with applications or workflows for analysis, storage, and processing.

<u>R</u>eusable – Metadata and data should be well-described so that they can be replicated and/or combined in different settings.

Water and Ecological Data-Sharing

Federal Data Sources

State Data Sources

State Data Sources

Other Data Sources

State Data Sources

DATA.CNRA.CA.GOV

DATA.CA.GOV

DATA.GOV

Dataset Search

Example Dataset: Data and Metadata

GSP Monitoring Data

The Groundwater Sustainability Plan (GSP) Monitoring dataset contains the monitoring sites and associated groundwater level, subsidence or streamflow measurements collected by Groundwater Sustainability Agencies (GSA) during implementation of their GSP. All data is submitted to the Department of Water Resources (DWR) through the Sustainable Groundwater Management Act (SGMA) Portal's Monitoring Network Module (MNM).

The GSP Regulations established the monitoring network criteria (23 CCR § 354.34) and the data and reporting standard for monitoring sites and measurements (23 CCR § 352.4). The data fields associated with these datasets were created by DWR to ensure that GSAs electronically submit monitoring site and measurement data which meets the GSP Regulation's data and reporting standards. For additional information regarding GSAs, GSPs, and SGMA related monitoring, please view DWR's SGMA Portal Resources at https://sgma.water.ca.gov/portal/.

Tags

| GSP | Groundwater Sustain... | Monitoring Network |

Additional Info

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PUBLIC ACCESS LEVEL	Public
SPATIAL COVERAGE	
LAST UPDATED	April 14, 2023, 6:04 AM (UTC-07:00)
LICENSE	License not specified

Data and Resources

Groundwater Level Sites 🔥
Groundwater Level Site Location Information
[Preview] [Download]

Groundwater Level Data 🔥
Groundwater level measurements at varying collected time steps
[Preview] [Download]

Subsidence Sites
Subsidence Site Location Information
[Preview] [Download]

Subsidence Data
Subsidence measurements at varying collected time steps
[Preview] [Download]

Stream Gage Sites
Stream Gage Site Location Information
[Preview] [Download]

Stream Gage Data
Surface water head and discharge time series measurements
[Preview] [Download]

Existing Sites
Existing Site Location Information
[Preview] [Download]

GSP Monitoring Data GIS Service 🔥
This service is under development as part of ongoing enhancements to the SGMA
[More Info] [Go to resource]

GSP Monitoring Sites (New - Under Development)
[Preview] [Download]

Sustainability Management Criteria (SMC) (New - Under Develop
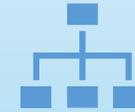[Preview] [Download]

Open Data Informational Working Group – Goals

Improve coordination and foster communication across DWR organizations, programs, and data groups.

Identify DWR needs for policy, standards, protocols, guidance, and tools for open data publication and review, publication performance monitoring and assessment.

Provide high-level oversight of DWR open data publication.

Ensure transparency and DWR-wide participation in the development of data-related processes and products.

Support building DWR data community, strengthening existing network among data groups, and providing support to publishing programs.

Supporting Open Data

- Convening communities of practice
- DWR Open Data Working Group
  - Data/Metadata
  - Training/Outreach
  - Data/Tools Alignment
- Open data guidance documents
- Open data curriculum

Open Data Working Group

Open Data Handbook

DOCUMENTS BEST PRACTICES

PROVIDES GUIDANCE FOR PUBLICATION – WHAT, HOW, WHEN, AND WHERE

DOCUMENTS STANDARDS

Open Data Handbook

Open Data Publishing Guide

PROVIDES STEP-BY-STEP PROCESS FOR METADATA PREPARATION AND DATA PUBLICATION ON CNRA PLATFORM

INCLUDES CHECKLISTS AND BEST PRACTICES FOR TABULAR DATA PREPARATION
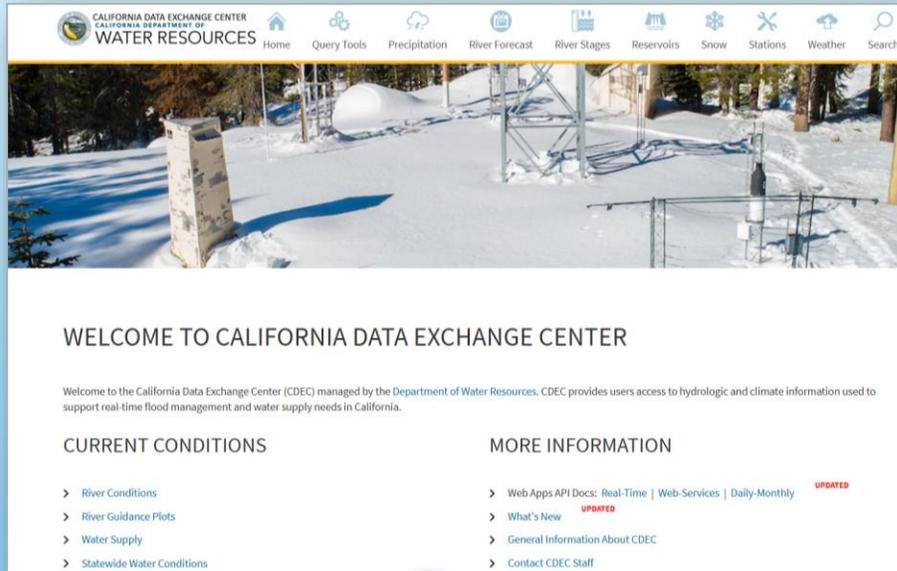
LISTS CONTACTS AND RESOURCES
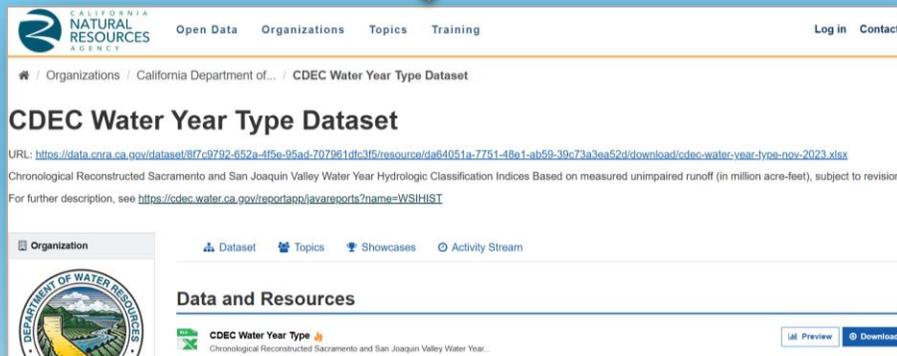
Open Data Publishing Guide

Data Standards

- Data standards and protocols
  - Identify a Data Steward
  - Publish and Document on an Open Data Platform
  - Access Data
- Data reporting formats
- Collaborating with the California Water Data Consortium on future data standards informed by user conversations

CNRA Open Data Platform and CDEC

https://cdec.water.ca.gov/

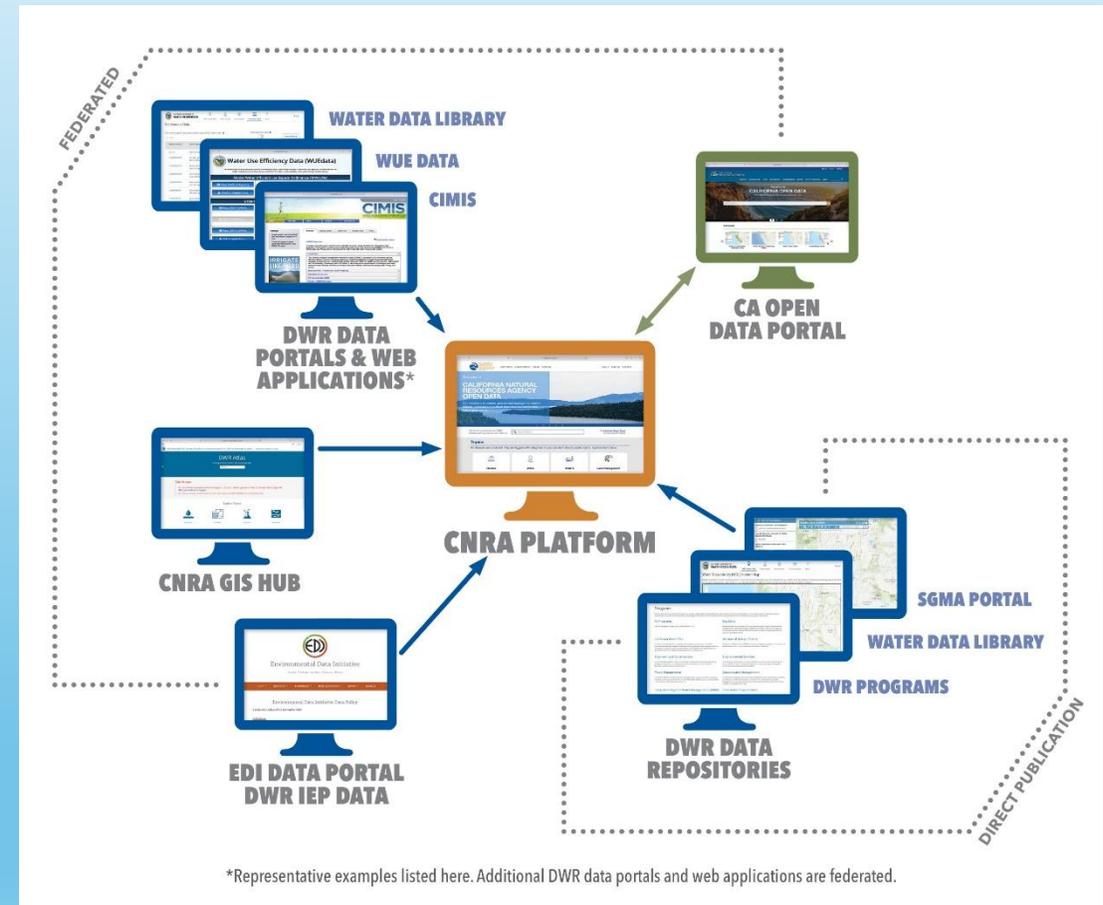https://data.cnra.ca.gov/dataset/cdec-water-year-type-dataset

- Working to Federate CDEC data to CNRA Open Data platform
- CDEC is an aggregator/ distributor of real-time data used in a variety of decision-making processes
- The importance and unique characteristics of CDEC data makes this federation a challenge
  - Real time data – continuously updated
  - Many datasets are quite large
  - Most datasets are not quality controlled

CNRA Open Data Platform and CDEC

- Snow water equivalent (SWE) data in machine readable format through a webservice link
  - SWE data updated daily/monthly
  - Most data is verified, if not QC'ed
  - Metadata, station information, and other relevant information in one page
- More data to be linked but not all datasets are suitable to be shared via Open Data Portal

Thank you!