



Sustainable Groundwater Management Program

Technical Assistance—Data, Tools, and Reports

<https://www.water.ca.gov/Programs/Groundwater-Management/Data-and-Tools>

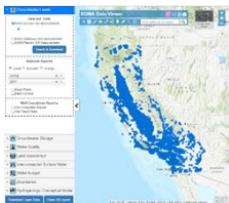


The Department of Water Resources (DWR) provides data, tools, and guidance to help Groundwater Sustainability Agencies (GSAs) develop, implement, and update Groundwater Sustainability Plans (GSPs), and fulfill the requirements of the Sustainable Groundwater Management Act (SGMA).

Data—Available Datasets

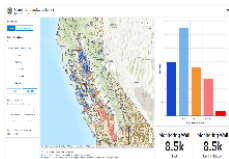
- **CNRA Open Data Platform – View Statewide Datasets:** <https://data.cnra.ca.gov/>
 - GSP/GSA Boundaries: <https://data.cnra.ca.gov/dataset/i03-groundwater-sustainability-plan-areas> and <https://data.cnra.ca.gov/dataset/i03-groundwater-sustainability-agencies>
 - GSP Monitoring Data: <https://data.cnra.ca.gov/dataset/gspmd>
 - Annual Report Data: <https://data.cnra.ca.gov/dataset/gspar>
 - Statewide Crop Mapping: <https://data.cnra.ca.gov/dataset/statewide-crop-mapping>
 - Land Subsidence: <https://data.cnra.ca.gov/dataset/tre-altamira-insar-subsidence>
 - Well Completion Reports: <https://data.cnra.ca.gov/dataset/well-completion-reports>
 - Periodic Groundwater Level Measurements: <https://data.cnra.ca.gov/dataset/periodic-groundwater-level-measurements>
 - Dry Well Reporting System: <https://data.cnra.ca.gov/dataset/dry-well-reporting-system-data>
 - Airborne Electromagnetic Surveys (AEM): <https://data.cnra.ca.gov/dataset/aem>
- **Groundwater Levels, Water Quality, and More:**
 - Water Data Library: <https://wdl.water.ca.gov/waterdatalibrary/>
- **Additional Related Data Sets:**
 - Water Use Efficiency Program Data Portal: <https://wuedata.water.ca.gov/>
 - Climate Change: <https://data.cnra.ca.gov/dataset/sgma-climate-change-resources>
 - Precipitation, Evapotranspiration, Streamflow, and More: <https://cimis.water.ca.gov/Default.aspx> or at https://cdec.water.ca.gov/snow_rain.html

Tools—Interactive Maps



SGMA Data Viewer: <https://sgma.water.ca.gov/webgis/?appid=SGMADataViewer>

The SGMA Data Viewer provides access to groundwater related datasets that are organized by the requirements of SGMA and the Groundwater Sustainability Plan (GSP) regulations for the purpose of supporting GSP development and implementation. *The Natural Communities Commonly Associated with Groundwater (NCCAG) dataset and Water Management Planning Tool have been moved and are now viewable on the SGMA Data Viewer.*



California's Groundwater Live: <https://sgma.water.ca.gov/CalGWLIVE/>

California's Groundwater Live provides the most relevant and recent groundwater information at the click of a button. The webpage also includes a series of interactive dashboards which allow users to interact and customize what groundwater data they would like to view. Users can filter the data by address, county, groundwater basin, well depth and even time period to see unique data summaries.



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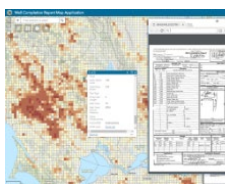
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California DWR Land Use Viewer: <https://gis.water.ca.gov/app/CADWRLandUseViewer/>

The CADWR Land Use Viewer allows users to easily view and download both statewide (as recent as 2023 Provisional crop data at the time of this update) and existing 116 county land use survey datasets that have been collected over the last 35+ years. The application also enables users to filter crop specific information and visualize land use change over time. For a demo on using DWR's Land Use Viewer, please view the [SGMA Tech Talk webinar](#). Learn more about [DWR's Land Use Program](#).



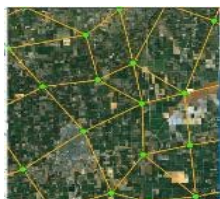
California DWR Well Completion Report Map Application:

<https://gis.water.ca.gov/app/wcr/>

The Well Completion Report Map Application provides direct statewide access to copies of Well Completion Reports. Well Completion Reports contain information collected by drillers during the drilling and construction of water wells, including the location, dates of construction, planned use, depth of the well, subsurface geologic units encountered, well construction, and well yield.

For additional information on DWR's modeling tools, visit: <https://www.water.ca.gov/Library/Modeling-and-Analysis>

Tools—Models Provided by DWR



Integrated Water Flow Model (IWFM): IWFM is a water resources management and planning model that simulates groundwater, surface water, stream-groundwater interaction, and other components of the hydrologic system. DWR is providing IWFM to Groundwater Sustainable Agencies (GSAs) to develop their GSPs as a tool that can be used for sustainable groundwater management. Find out more at:

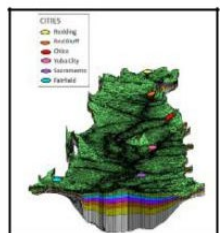
<https://water.ca.gov/Library/Modeling-and-Analysis/Modeling-Platforms/Integrated-Water-Flow-Model>



California Central Valley Groundwater Surface Water Simulation Model (C2VSim):

C2VSim applies the IWFM to Central Valley groundwater. C2VSim simulates the historical response of the Central Valley's groundwater and surface water flow system to historical stresses and can also be used to simulate the response to projected future stresses. Version 1.0 was released November 17, 2022. Find out more at:

<https://water.ca.gov/Library/Modeling-and-Analysis/Central-Valley-models-and-tools/C2VSim>



Sacramento Valley Simulation Model (SVSIM, Version 1.0): SVSim is a new model of the Sacramento Valley using the IWFM code and based on the C2VSim-Fine Grid dataset. This model supports more detailed analysis of streamflow depletion due to groundwater substitution transfers as well as supports the implementation of SGMA. SVSim has an updated representation of the hydrogeologic conceptual model and aquifer parameters based on an extensive lithologic texture analysis. It also has a more refined (smaller) horizontal grid along major waterways and more discretized vertical layering. Version 1.0 supersedes the SVSim Beta Version released in April 2020. Documentation of SVSim model design, input data development, and model calibration and sensitivity analysis are also available. Find out more and view additional relevant datasets visit:

<https://data.cnra.ca.gov/dataset/svsim>



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Reports and Guidance—Best Management Practices & Guidance Documents

Available for download: <https://water.ca.gov/Programs/Groundwater-Management/SGMA-Groundwater-Management/Best-Management-Practices-and-Guidance-Documents>



- DRAFT Land Subsidence BMP
- Monitoring Protocols, Standards and Sites
- Monitoring Networks and Identification of Data Gaps
- Hydrogeologic Conceptual Model
- Water Budget
- Modeling
- Sustainable Management Criteria (Draft)
- Engagement with Tribal Governments
- Guidance for Groundwater Sustainability Plan Implementation
- Guidance on Interconnected Surface Water
- Resource Guide for Climate Change Data and Guidance
- Guidance for Climate Change Data Use During Sustainability Plan Development
- Stakeholder Communication and Engagement

California Groundwater Recharge Information: <https://data.cnra.ca.gov/dataset/california-groundwater-recharge-information>

California's Groundwater (Bulletin 118): <https://water.ca.gov/Programs/Groundwater-Management/Bulletin-118>

- California's Groundwater (Bulletin 118) Update 2025
- California's Groundwater Conditions Semi-Annual Updates (October 2025)

Resources – Relevant Information

California Statewide Airborne Electromagnetic Surveys and Preliminary Hydrogeologic Interpretations: https://www.conservation.ca.gov/cgs/documents/publications/california-geology-magazine/CG_2024-AEMsurveys.pdf

Basin Characterization Exchange (BCX):

The BCX is a meeting series and network space for the Basin Characterization community to exchange ideas, share lessons learned, define needed guidance, and highlight research topics. The BCX is open to federal, state, tribal, and local agencies, consultants, NGOs, academia, and interested parties who participate in Basin Characterization efforts. For more information about the BCX and to view past webinars:

<https://cadwr.app.box.com/hubs/113121361?v=BasinCharacterizationExchange> To sign up for the BCX email mailing list and to receive updates about upcoming meetings:

<https://forms.office.com/pages/responsepage.aspx?id=UIYdt4NLV0KvzXRd4hFZPmYpzgLfMNAp7HkmeXl9IhUNExSQkxPTIIMM1NVWjZUUFZYQVJTRVNIRy4u&route=shorturl>



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SGMA Portal, Reporting Systems, and Modules: <https://sgma.water.ca.gov/portal/>

The SGMA Portal is a tool accessible to both agencies and the public. With no account login required, the public has the ability to view and download information related to groundwater sustainability agencies (GSAs), groundwater sustainability plans (GSPs), alternatives to GSPs, adjudicated areas, and basin boundary modifications. The following resources are available through the SGMA Portal:

- GSP/Alternative Reporting Systems: <https://sgma.water.ca.gov/portal/gsp/dashboard> or <https://sgma.water.ca.gov/portal/alternative>
- Projects and Management Actions Module: <https://sgma.water.ca.gov/portal/projects/submitted>
- Monitoring Network Module: <https://sgma.water.ca.gov/SgmaWell/>

The California Statewide Groundwater Elevation Monitoring (CASGEM) and associated information have been migrated to the SGMA Portal.

Sign up to receive monthly Sustainable Groundwater Management Program Newsletters and regular updates: <https://public.govdelivery.com/accounts/CNRA/signup/31790>

For general SGMA inquiries, please email: SGMPS@water.ca.gov