



# ENHANCE AND MAINTAIN DWR'S MODELING TOOLS

*This project focuses on the development, operation, and maintenance of DWR's modeling tools. These tools provide groundwater sustainability agencies (GSAs) and related stakeholders with information to support groundwater sustainability plan (GSP) development, implementation, and evaluation as well as support groundwater recharge projects and subsidence issues.*

## What is Proposition 68?

The California Drought, Water, Parks, Climate, Coastal Protection and Outdoor for all Fund (Senate Bill 5, Proposition 68) authorized \$4 billion in general obligation bonds for state and local parks, environmental protection and restoration projects, water infrastructure projects, and flood protection projects. The Enhance and Maintain DWR's Modeling Tools project will utilize \$4.8 million on data, tools, and analysis efforts for drought and groundwater investments to achieve regional sustainability in support of the Sustainable Groundwater Management Act (SGMA) over a period of five years.

## How Does This Project Support SGMA?

This project provides GSAs, related stakeholders, and the public with regional and statewide data, tools, and analysis aligned to the technical requirements of the GSP regulations and SGMA. The resulting information will provide standardized statewide data and reporting.

This project builds on the knowledge and successful track record of DWR's Regional and Statewide Integrated Water Management technical assistance programs and is in alignment with the Governor's Water Resilience Portfolio (Executive Order N-10-19) and the Open and Transparent Data Act (AB 1755). The information and knowledge gained through this project can assist local water agencies to successfully develop and implement GSPs.

## What is the Value of this Information?

The Fine-Grid California Central Valley Groundwater-Surface Water Simulation Model (C2VSimFG) is a computer program that simulates water movement through the linked land surface, groundwater, and surface water flow systems in California's Central Valley. The C2VSimFG model contains monthly, historical stream inflows, surface water diversions, precipitation, land use, and crop acreages from October 1921 through 2015.

The C2VSimFG model simulates groundwater surface elevations for confined and unconfined aquifers and regional groundwater elevation response to changing water supplies and water demands. The model uses simplified geology to constrain how groundwater moves through the subsurface. Coarse estimates of short-term subsidence and surface water-groundwater interaction can also be simulated by the model. The C2VSimFG model can be used for planning-level water budget estimates. Uncertainty in the model data and simplified methods need to be accounted for when interpreting the results.

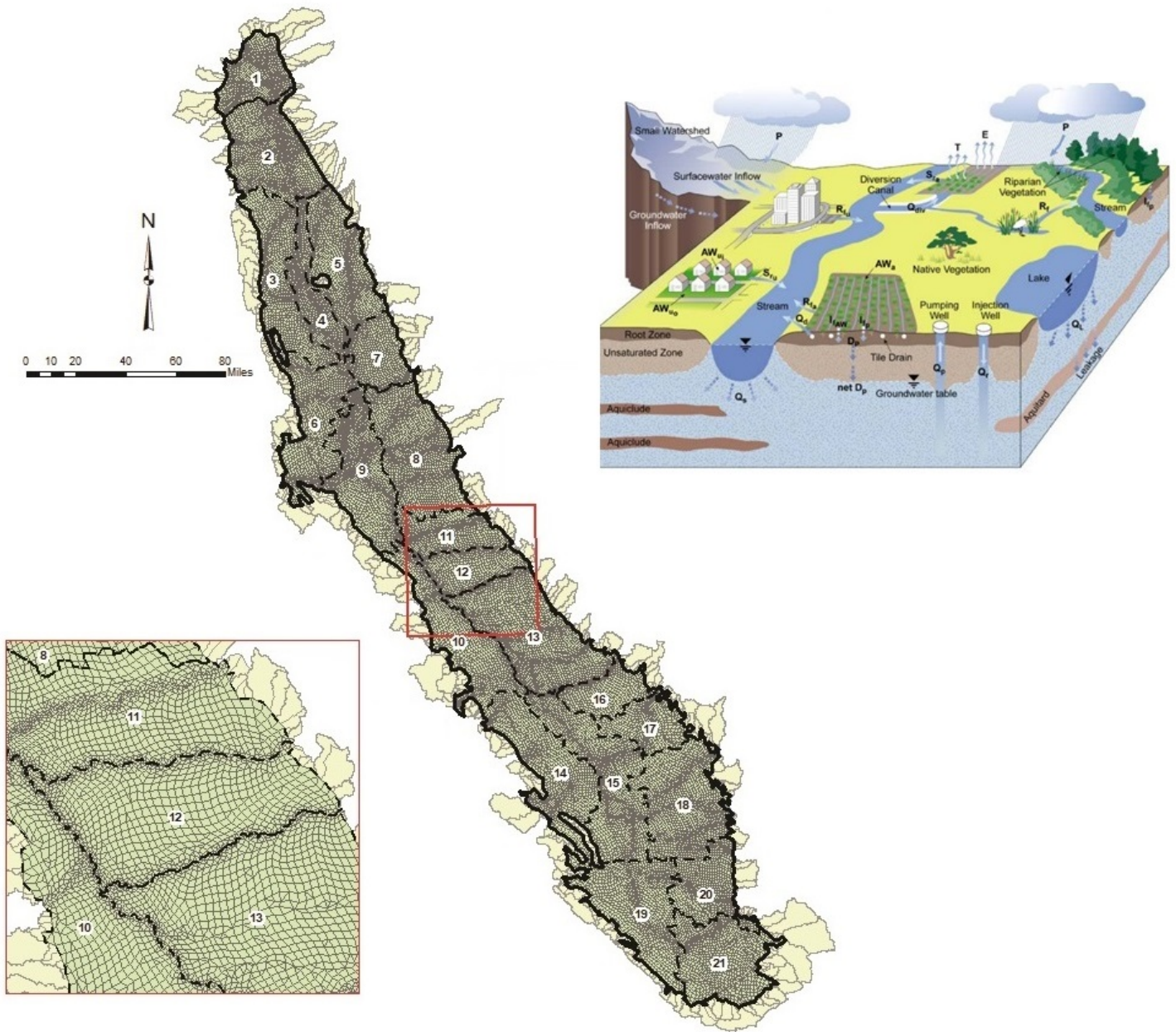
## What is New in 2019?

C2VSimFG Beta 2.0 was released with updates to precipitation, texture, land use, and surface water.

## What are the Next Steps?

In the spring of 2020, DWR plans to release C2VSimFG Version 1.0.

# CALIFORNIA CENTRAL VALLEY GROUNDWATER-SURFACE WATER SIMULATION MODEL



**Contact and Additional Information**  
For more information or questions, contact  
Tyler Hatch at [Tyler.Hatch@water.ca.gov](mailto:Tyler.Hatch@water.ca.gov)

**DWR SGMA Data and Tools Webpage**  
[www.water.ca.gov/Programs/Groundwater-Management/Data-and-Tools](http://www.water.ca.gov/Programs/Groundwater-Management/Data-and-Tools)