



# Groundwater Management

Groundwater resources make up a significant portion of our water supplies in California. With the current drought conditions increasing the stresses on our groundwater resources, continued growth in state population and associated demands for better and more water supplies, and existing and new regulatory requirements on the currently available supplies, water agencies and purveyors need to have a long-term perspective on the use of groundwater resources.

- 1. How can I assess the sustainability of my groundwater resources?**
- 2. How can I safeguard my community against future threats to our groundwater resources?**
- 3. Are there funding opportunities that I can use to support my groundwater projects?**

*RMC has been a leader in developing and implementing groundwater management and planning projects over the past two decades. Our sound technical expertise and big picture thinking can help your agency to make the most of your groundwater related projects or programs.*

We have knowledgeable, forward-thinking staff experienced in developing groundwater management plans, groundwater quality and monitoring plans, conceptual models, numerical simulation models, and environmental and ecosystem impacts analysis, as well as investigating and assessing surface water-groundwater interaction. Our expertise in developing groundwater management programs, combined with our involvement in the recent assessment of a majority of groundwater management plans in the state supporting the formation of the Sustainable Groundwater Management Act of 2014, will be available to you as you develop the Groundwater Sustainability Plan required by the Act.

Our staff's technical, regulatory, and policy expertise, coupled with solid unique approaches to groundwater analysis, planning, and modeling, combined with effective field investigation techniques, enable us to complete groundwater planning projects on time and within budget. Our state-of-the-art groundwater and integrated hydrologic modeling capabilities and expertise will help you to quantify the sustainable yield of your groundwater basin and evaluate options to meet the sustainability goals within a hydrologically, operationally, and economically-balanced context.

**Complex Challenges | Innovative Solutions**

Planning | Funding Support | CEQA/NEPA |  
Regulatory Compliance | Design and  
Construction | Information Management |  
Modeling | Program Management



## Development of Water Management Plans Help to Meet Long-Term Supply Goals

RMC has developed numerous SB 1938-compliant Groundwater Management Plans for various groundwater basins throughout California. In an effort to provide policy support to the legislature during the development of the Sustainable Groundwater Management Act of 2014, RMC reviewed almost all of the Plans developed in the state. This resulted in valuable findings that will have to be incorporated in development of Groundwater Sustainability Plans.

## C2VSim Models the Central Valley's Groundwater and Hydrologic System

RMC managed the development and enhancement of California Department of Water Resources' Central Valley integrated water resources model, C2VSim. This enhanced version of the model has been used to evaluate many scenarios and projects, including the historical development in the Valley, interactions between surface water courses and groundwater aquifers, impacts of water transfer programs, and effects of future potential growth and development on groundwater and surface water supply conditions.

## Hydrologic and Groundwater Modeling Analyses Explored Historical Conditions and Interaction between Surface and Groundwater

RMC has used modeling analysis to evaluate effects and impacts of long-term water transfer programs at regional and statewide level. The Central Valley model has been used to evaluate the statewide effects of water transfer programs and impacts of such programs on Delta inflows. The Sacramento County integrated water resources model has been used to assist the Sacramento Area Regional Water Authority members negotiate a cost-effective and environmentally feasible water transfer project.

## Simulation Modeling Tests Feasibility of Conjunctive Use

RMC developed an integrated hydrologic model for the Kings groundwater basin in the Central Valley, which was used to evaluate groundwater conditions in the basin under status quo, and the feasibility of various conjunctive use concept options to help alleviate the current conditions in the basin. RMC also assessed opportunities to recharge the groundwater basin using excess winter-time Kings River flows, and evaluated the agronomic and economic implications of such program.

## Development of Analytical Tools and Models for Salt & Nutrient Plans

RMC has been a leading consultant in development of Salt & Nutrient Plans (SNMPs) for many agencies in the state which are considering the use of recycled water as a source of recharge and/or replenishment for their groundwater basins. RMC has a team of experts familiar with the regulatory requirements of SNMPs and has developed the analytical tools and models to evaluate the groundwater basin conditions and salt and nutrient loadings in the context of SNMPs.

