Foreword

In 1957, DWR Director Harvey O. Banks stated: "Groundwater looms very large in the total water picture in California and the formation and implementation of plans to meet our needs for water in the future. We are seriously lacking in the data and information necessary for planned utilization of groundwater." Today, it is all the more apparent that we need to change the trajectory in terms of our ability to understand groundwater and take bold actions to manage it sustainably.

To that end, *California's Groundwater Update 2013: A Compilation of Enhanced Content for California Water Plan Update 2013* (Groundwater Update) provides a foundational set of data and analyses of California's groundwater basins, well infrastructure, monitoring efforts, aquifer conditions, and management practices. Statewide and regional findings, as well as recommendations to improve groundwater management, are included.

The information contained in this Groundwater Update supports decisions initiated in a number of seminal groundwater-related actions in response to California's critically dry conditions in 2013 and 2014. These include the Governor's *California Water Action Plan* (Water Action Plan), the 2014 Drought State of Emergency declarations, and the 2014 Sustainable Groundwater Management Act.

The Groundwater Update provides the foundation from which to implement many of the 10 actions in the Water Action Plan; specifically, action 6 calls for expanding water storage capacity and improving groundwater management. The data and analyses presented in this update also set the stage for future Bulletin 118 reporting and analyses, and will help local and regional agencies plan and implement sustainable groundwater management.

Many recommendations identified in the Groundwater Update were included in the Sustainable Groundwater Management Act passed by the California Legislature and signed by Governor Brown in 2014. The act mandates the creation of groundwater sustainability agencies to monitor and report extraction and develop plans to achieve sustainability goals within 20 years of establishing a plan.

A key aspect to improving groundwater management practices involves quantifying water budgets for interconnected surface water and groundwater systems and changing the way groundwater data are collected, shared, evaluated, and reported. Answering fundamental questions regarding how groundwater supply and demand relate to basin sustainability requires commitment to regular, consistent, and comprehensive data collection, reporting, and assessment. Groundwater data collection and information exchange, which enhance education and understanding, comprise a critical first step toward improving the reliability of groundwater resources, restoring key ecosystem functions, and establishing the resiliency needed to preserve California's groundwater resources for future generations.

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