

EXECUTIVE SUMMARY:
Triennial Update of Estimated Average Ambient Groundwater Quality

Every three years, nearly two dozen water and wastewater agencies pool their resources to reassess water quality in 40 groundwater basins throughout the Santa Ana region. These aquifers store more than 45 million acre-feet of water - an amount one and a half times greater than the entire capacity of Lake Mead. Twenty years of monitoring data (1996-2015) from nearly 5000 wells, spread across almost 1400 square miles, was used to complete the most recent comprehensive analysis as required by state authorities.

The Santa Ana Regional Water Quality Control Board relies on these triennial reports to protect groundwater quality for the 5 million people who now depend on this critical resource for their drinking water supply - especially during drought conditions. Specifically, the Regional Board staff uses the resulting data to verify that water quality continues to meet applicable standards for salinity and nitrate. The information is also used to confirm that the current permitting system for controlling wastewater discharges is working as intended and there are no significant negative trends in groundwater quality.

Working closely with Regional Board staff, the standardized method used to evaluate and characterize water quality was developed in a joint-effort by stakeholders throughout the watershed. The Regional Board formally approved this method and added it to the Water Quality Control Plan (aka "Basin Plan") in 2004.¹ One year later, the Regional Board also approved the stakeholder's proposed Monitoring and Reporting Program to update the regional groundwater quality analysis every three years.²

The Santa Ana Watershed Project Authority (SAWPA) formed the Basin Monitoring Program Task Force to fulfill the obligations specified in the Monitoring and Reporting Program.³ All the major water and wastewater agencies in the region are members of the Task Force and representatives from each of these organizations, and the Regional Board staff, attend monthly meetings to coordinate implementation activities. All of the reports prepared by the Task Force can be downloaded from SAWPA's website using the following [link](#).

Expenses are shared among the 21 member agencies with each contributing less than \$15k/year to support the joint effort. Pooling resources and leveraging economies-of-scale produces a substantial savings over what it would otherwise cost if each agency attempted to fulfill the mandatory groundwater monitoring and reporting requirements individually. In addition, using one common method to characterize ambient groundwater quality significantly reduces the potential for disputes and litigation based on redundant but conflicting estimates of current conditions and trends. The Regional Board must formally review and accept the Task Force's triennial report, at a public hearing, before the resulting information can be used in the NPDES permitting program.

All of the data collected as part of the regional groundwater monitoring program, which includes information about aquifer levels and storage, is also used to support a wide variety of other integrated water resource planning programs including the Sustainable Groundwater Management Act (SGMA) and the State Water Board's Recycled Water Policy. In 2009, the Little Hoover Commission endorsed the Santa Ana region's stakeholder-driven Task Force process as a statewide model for developing more cost-effective regulatory programs to protect water quality.⁴

¹ Res. No. R8-2004-0001; Adopted on Jan. 22, 2004.

² Res. No. R8-2005-0063; Adopted on Apr. 15, 2005.

³ <http://www.sawpa.org/task-forces/basin-monitoring-task-force/>

⁴ Little Hoover Commission. Clearer Structure, Cleaner Water: Improving Performance and Outcomes at the State Water Boards. Jan., 2009.