Local Rainfall and Reservoirs

San Diego County's semiarid climate means that truly wet years are few and far between, and dry years are very common. Since 1976, the amount of local surface water used to help meet annual demand has been as high as 140,300 acre-feet and as low as 4,071 acre-feet. Consequently, runoff from local rainwater that flows into reservoirs — commonly called surface water — represents a vital but small portion of San Diego County's water supply needs.

Over the past 10 years, an average of about 7 percent of the region's total annual water supply came from local surface water. San Diego County has not relied solely on its local water sources since 1947, when imported water flowed through the region's first aqueduct, making Colorado River water available to fuel the region's post-World War II growth.

Enhancing Water Storage

Today, the Water Authority and its member agencies have 24 reservoirs that store imported and local runoff water for normal use, emergency conditions and imported water shortages. Combined water storage capacity now totals approximately 723,000 acre-feet. This is a 30 percent increase since 2003, created by the Water Authority's $2 billion Capital Improvement Program to improve the region's water infrastructure.
A crucial component of this program is the $1.5 billion Emergency & Carryover Storage Project, which created new emergency water storage at the Olivenhain, Hodges and San Vicente reservoirs. This new system ensures the region has up to a six-month supply of water should an earthquake or other disaster disrupt imported water deliveries.

**Olivenhain Dam and Reservoir and Lake Hodges**

The Olivenhain Reservoir, completed by the Water Authority in 2003, was the region’s first new major dam and reservoir in 50 years. The reservoir holds 24,000 acre-feet of water and is designed to withstand a major earthquake to keep water available and flowing to the region.

Improvements to Lake Hodges began in 2005 and were completed in 2012. The project connects Lake Hodges to the Olivenhain Reservoir and to the Water Authority’s Second Aqueduct, and makes spills from Lake Hodges during heavy storms less likely.

**San Vicente Dam Raise**

The largest piece of the Emergency Storage Project was raising the City of San Diego’s San Vicente Dam. The Water Authority project increased the height of the dam by 117 feet – the largest dam raise in U.S. history. Completion in 2014 added 52,100 acre-feet of emergency water storage and more than 105,000 acre-feet of carryover storage to collect water in wet periods for use in dry years. The San Vicente Dam Raise produced the largest increase in regional water storage in San Diego County’s history.

---

**San Diego County Water Authority**

Our Region’s Trusted Water Leader

4677 Overland Ave.
San Diego, California
92123-1233
858.522.6700

sdcwa.org

---

Groundwater basins are underground reserves of water that may take the form of a single aquifer or a group of linked aquifers. They are a major supply source in many parts of Southern California. Unfortunately, San Diego County’s geologic makeup has relatively limited groundwater assets to complement surface water stored in reservoirs.