

Water Quality Report Card

Nitrogen and Phosphorus in Canyon Lake

Regional Water Board: Santa Ana, Region 8

Beneficial Uses Affected: AGR, GWR, MUN, REC-1, REC-2, WARM, WILD

Implemented Through: Caltrans Statewide Stormwater Permit, CWC §13267, Riverside County MS4 Permit, Elsinore Valley Municipal Water District, Regional Water Reclamation Facility NPDES Permit, Conditional Waiver of Waste Discharge Requirements for Agricultural Discharges, CAFO Permit

Effective Date: September 30, 2005

Attainment Date: December 31, 2020

STATUS Conditions Improving

Pollutant Type: Point Source Nonpoint Source

Pollutant Source:

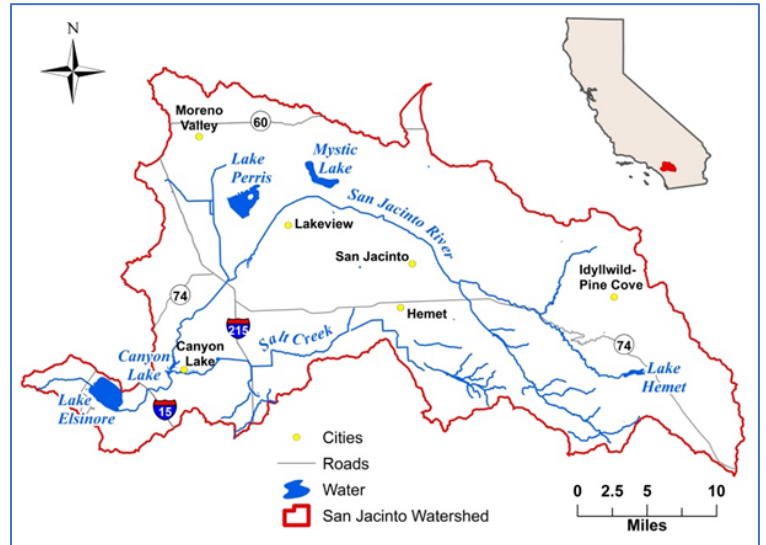
Confined Animal Facilities, Crop Production, Naturally Occurring, Atmospheric Deposition, Onsite Wastewater treatment Systems, Nonpoint Source Runoff, Urban Stormwater Runoff, Wastewater Discharges

Water Quality Improvement Strategy

Canyon Lake, located approximately 5 miles upstream of Lake Elsinore, is a manmade lake created in 1928 by the construction of Railroad Canyon Dam. Almost 95% of the 782 mi² San Jacinto River watershed drains into Canyon Lake. Most years, watershed runoff terminates at Canyon Lake, resulting in nutrient accumulation that leads to excessive algal growth, low dissolved oxygen levels, and periodic fish kills. To address nutrient impairments, the Santa Ana Regional Water Quality Control Board developed the [Canyon Lake Nutrient TMDL](#) for total nitrogen and total phosphorus, which was approved by the U.S. EPA in September 2005. Potential revision to the Nutrient TMDLs for Canyon Lake is in development.

The TMDLs established an implementation plan to address point source and nonpoint source discharge nutrient loads by incorporating waste load allocations/load allocations into existing permits. The TMDL calls for total nitrogen (TN), total phosphorus (TP) allocations, (specified as a 10-year averages), dissolved oxygen (DO), and chlorophyll-a numeric targets to be achieved by December 31, 2020.

San Jacinto Watershed Map



Water Quality Outcomes

- Water Quality data show Total Phosphorus and Total Nitrogen loads, based on 10-year rolling averages, are meeting Total Maximum Daily Loads
- In-lake Total Nitrogen concentrations remain above Canyon Lake Nutrient TMDL Numeric Targets
- The alum mitigation project has reduced available phosphorus
- Draft revised water quality targets, which are site-specific and reflective of natural conditions in the lake, are being considered as part of a potential TMDL update
- Responsible parties are implementing Comprehensive Nutrient Reduction Plans or Agricultural Nutrient Management Plans.

TMDL Waste Load Allocations/Load Allocations (10-year rolling averages)

	Total Phosphorus (kg/yr)	Total Nitrogen (kg/yr)
Total WLAs and LAs ¹	3,845	22,268
Total est. current Load ²	3,859	5,756

¹Excludes atmospheric deposition or internal sediment loading

²Does not take into consideration alum offsets for Phosphorus

Water Quality

