

# Water Quality Report Card

## Nitrogen and Phosphorous in Lake Elsinore

**Regional Water Board:** Santa Ana, Region 8

**Beneficial Uses Affected:** REC-1, REC-2, COMM, WARM, WILD, RARE

**Implemented Through:** [Caltrans Statewide Stormwater Permit, CWC §13267, MS4 Permits, NPDES Permits, CAFO Permit](#)

**Effective Date:** September 30, 2005

**Attainment Date:**

**STATUS** Conditions Improving  
Improvement Needed

**Pollutant Type:** ✓ Point Source ✓ Nonpoint Source ✓ Legacy

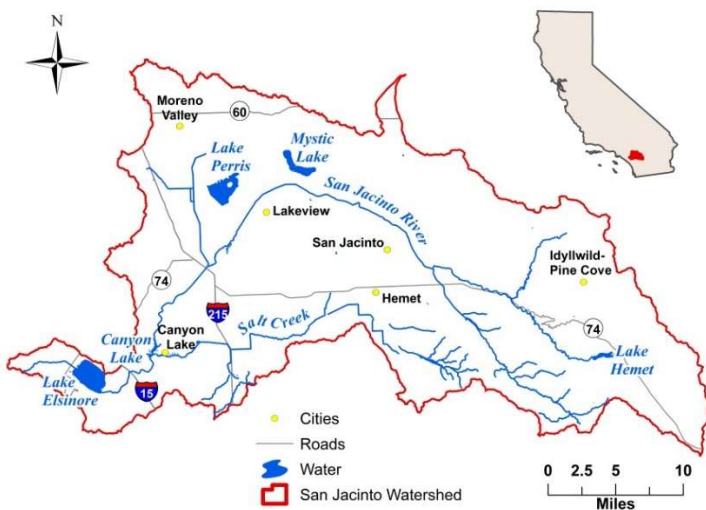
**Pollutant Source:** Agricultural, urban runoff, open space sources

### Water Quality Improvement Strategy

Located in southwest Riverside County, Lake Elsinore is the lowest point of the approximately 782 mi<sup>2</sup> San Jacinto River watershed and the terminus of the San Jacinto River. Lake Elsinore, a shallow lake with a large surface area, has a long history of nutrient enrichment which has led to algae blooms, low dissolved oxygen levels and excessive fish kills. To address nutrient impairments the Santa Ana Regional Water Quality Control Board developed the [Lake Elsinore Nutrient TMDL](#) for total nitrogen and total phosphorus, which was approved by the U.S. EPA in September 2005. The Lake Elsinore Lake Nutrient TMDLs are currently under revision, and a draft version was submitted for peer review. Responses to the peer review comments are in development and staff are moving forward with a 2020 Revision to the Nutrient TMDLs for Canyon Lake.

The TMDL 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.

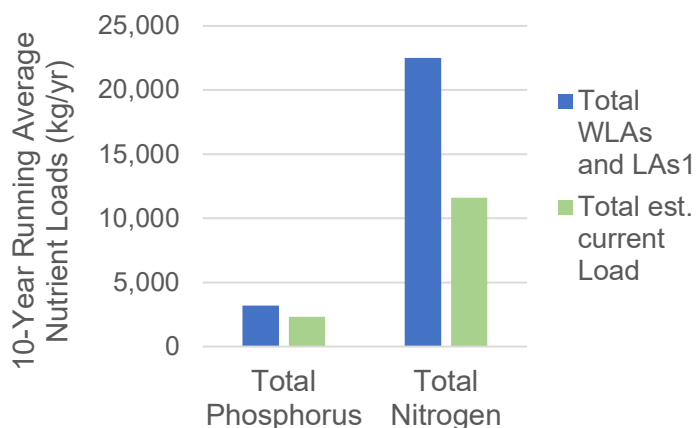
### Lake Elsinore Watershed Map



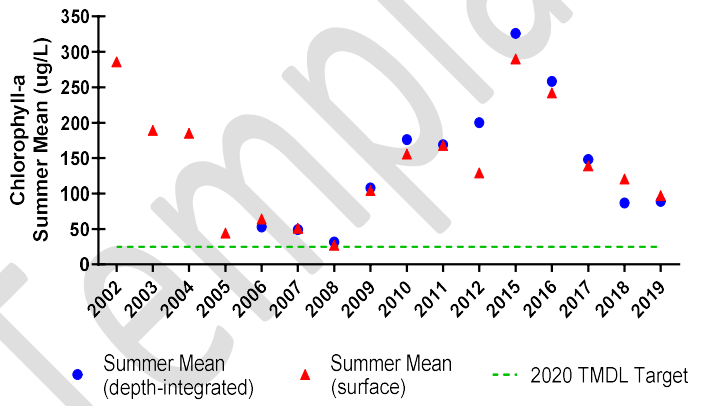
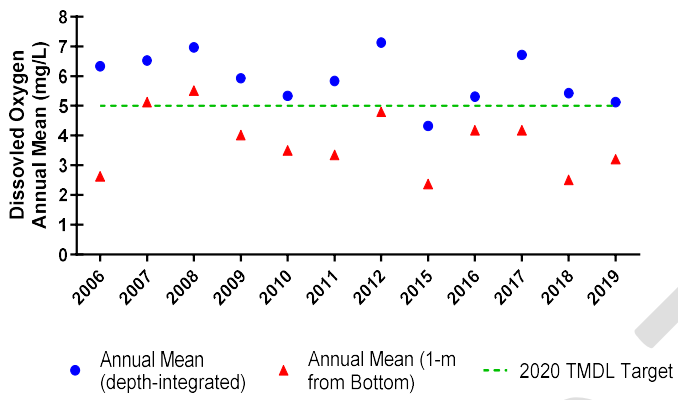
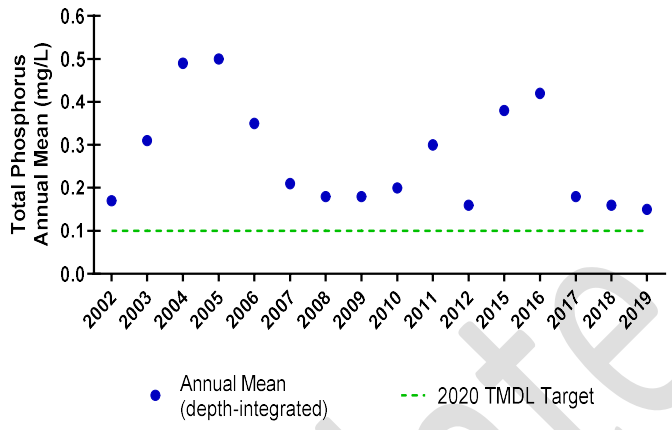
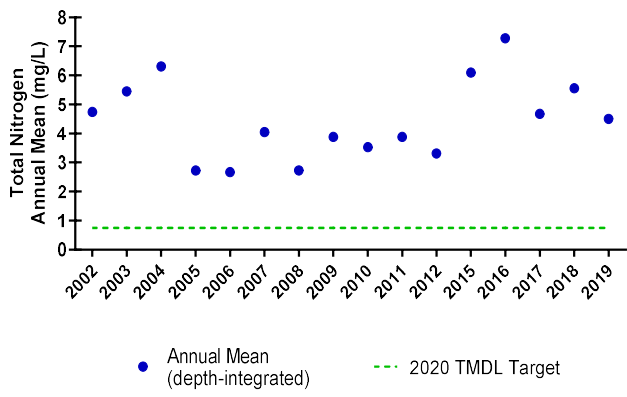
### Water Quality Outcomes

- Water Quality data shows Total Phosphorous and Total Nitrogen loads based on a 10-year rolling average are meeting Total Maximum Daily Loads
- In-lake concentrations of Total Nitrogen, Total Phosphorus, and Chlorophyll-a remain above Nutrient TMDL Numeric Targets
- Historic drought conditions occurred between 2014 and 2016 with minimal runoff into the lake leading to an increase in Nitrogen, Phosphorus and Chlorophyll-a.
- Responsible parties have implemented several management projects, including an aeration system, fishery management, and lake stabilization with recycled water.
- Draft revised water quality targets are being considered as part of the 2004 TMDL update which are site-specific and reflective of natural conditions in the lake
- Responsible parties are implementing Comprehensive Nutrient Reduction Plans or Agricultural Nutrient Management Plans

### TMDL Waste Load Allocations/Load Allocations



<sup>1</sup>Excludes atmospheric deposition or internal sediment



FY 19-20 Template