

# Water Quality Report Card

Nitrate in San Lorenzo River

**Regional Water Board:** Central Coast, Region 3

**Beneficial Uses Affected:** Agricultural Supply; Municipal & Domestic Supply; Cold Freshwater Habitat

**Implemented Through:** Prop 50 AGWQ (Nutrient, Pathogen, & Sediment Pollution Reduction from Livestock Facilities, 09-348- 553)

**Effective Date:** 1/14/2003

**Attainment Date:** 2/13/2032

**STATUS** **Conditions Improving**

**Pollutant Type:** Point Source Nonpoint Source

**Pollutant Source:** Onsite Wastewater treatment Systems  
Confined Animal Facilities  
Grazing  
Irrigated Crop Production  
Naturally Occurring

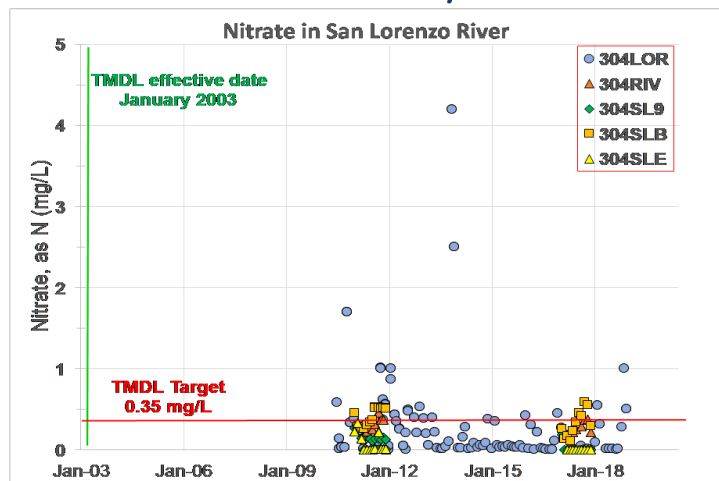
## Water Quality Improvement Strategy

The San Lorenzo River watershed encompasses an area of 140 square miles in Santa Cruz County. The river is listed on the USEPA [Clean Water Act Section 303\(d\) List](#) due to nitrate impairments. By the 1980s, elevated nitrate concentrations were causing taste and odor issues in municipal and domestic water supplies. To address the nitrate impairment, the [San Lorenzo River Nitrate Total Maximum Daily Load \(TMDL\)](#) was implemented in January 2003. Nitrate pollution originates from septic systems, livestock operations, landscape fertilizer, groundwater, and natural sources. Septic systems are the primary controllable contributor to nitrate loads to the watershed. The Central Coast Water Board approved Santa Cruz County's [Nitrate Management Plan \(Plan\)](#) in 1995 to address the nitrate impairments. In 2010, Ecology Action of Santa Cruz was awarded a grant to implement management practices on livestock facilities, to reduce nutrient loading to surface waters. Through discharger implementation of the Plan and watershed improvement activities funded by the grant, it is anticipated TMDL objectives will be achieved by 2032.

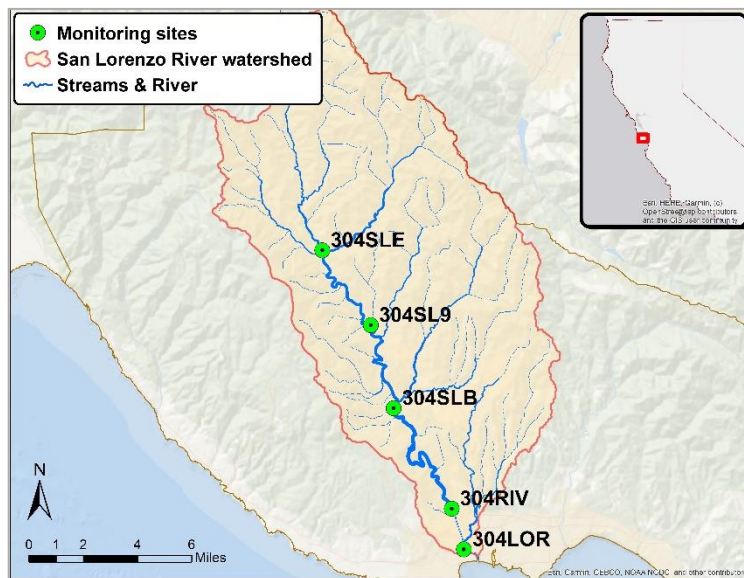
### TMDL Allocations for All Sources

Parameter	Concentration
Nitrate as Nitrogen	0.35 mg/L

### Water Quality



## San Lorenzo River Watershed



## Water Quality Outcomes

- Nitrate water quality in the San Lorenzo River has improved. The seasonal Kendall test was applied to evaluate water quality trends over time in the R software package. A trend was considered "significant" if the p-value of the Seasonal Kendall test was < 0.05. The available water quality data indicate statistically significant reductions in nitrate in the last decade of monitoring.
- 25 percent of samples collected in the estuary (site 304LOR) still exceed the TMDL numeric target of 0.35.
- Groundwater nitrate sources to streams can take years to respond to land management practices, therefore we still anticipate the 2032 TMDL attainment date is achievable.