

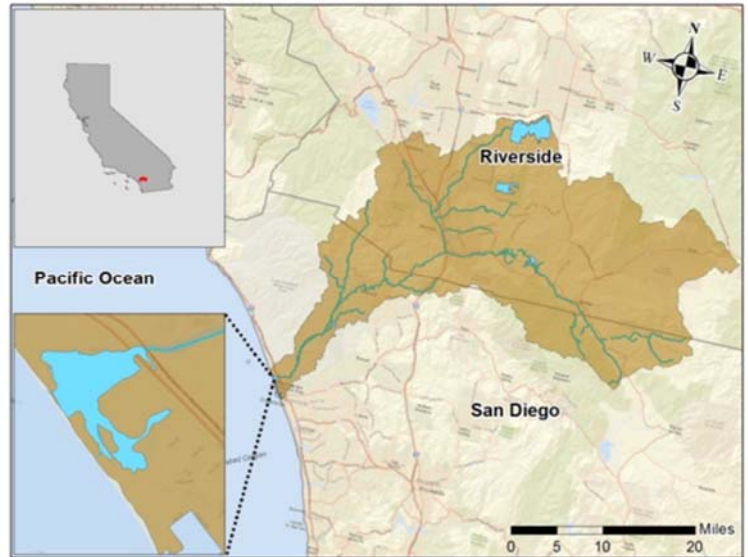
Water Quality Report Card		Nutrients in the Santa Margarita River Estuary		Item 7
Regional Water Board:	San Diego, Region 9	STATUS	<input type="checkbox"/> Conditions Improving	Supporting Document No. 1
Beneficial Uses Affected:	REC-1, REC-2, EST, RARE, SPWN, and MIGR		<input type="checkbox"/> Data Inconclusive	
Implemented Through:	Existing Regulatory Authority, Permits	Pollutant Type:	<input checked="" type="checkbox"/> Point Source	<input checked="" type="checkbox"/> Nonpoint Source
Effective Date:	N/A	Pollutant Source:	<input checked="" type="checkbox"/> Legacy	
Attainment Date:	To Be Determined		Nonpoint Source Runoff	
			Urban Storm Water Runoff	

**Water Quality Improvement Strategy**

The 750-square mile Santa Margarita River Watershed (Watershed) is located in both San Diego and Riverside counties, and drains into the Pacific Ocean just north of the City of Oceanside at the Santa Margarita River Estuary (Estuary). The Estuary was placed on the 303 (d) List in 1986 for eutrophic conditions. Eutrophic conditions are caused by excessive nutrient loading, which leads to excessive growth and decomposition of algae, and low dissolved oxygen conditions. When dissolved oxygen decreases to low concentrations, it becomes difficult for the Estuary to support healthy aquatic life. To illustrate this, the graph below shows 2010 daily average dissolved oxygen concentration data for the Estuary with values falling below the Basin Plan Water Quality Objective (5.0 mg/L) over 40 percent of the time. Three sources of nutrients to the Estuary, treated sewage, active agricultural discharges, and polluted groundwater dewatering from a transit project, have been eliminated.

The Regional Water Board is working collaboratively with the Santa Margarita River Estuary Nutrient Initiative Group to address the remaining sources of nutrients (primarily urban and commercial agriculture runoff) to restore the Estuary. The proposed restoration approach will use existing regulatory authority (Regional Storm Water (MS4) Permit, statewide Phase II MS4 Permit, and Regional Commercial Agriculture WDRs). Restoration actions include: implementation of protective macroalgal biomass and dissolved oxygen numeric targets for the Estuary, nutrient load reductions, and a robust monitoring and assessment program.

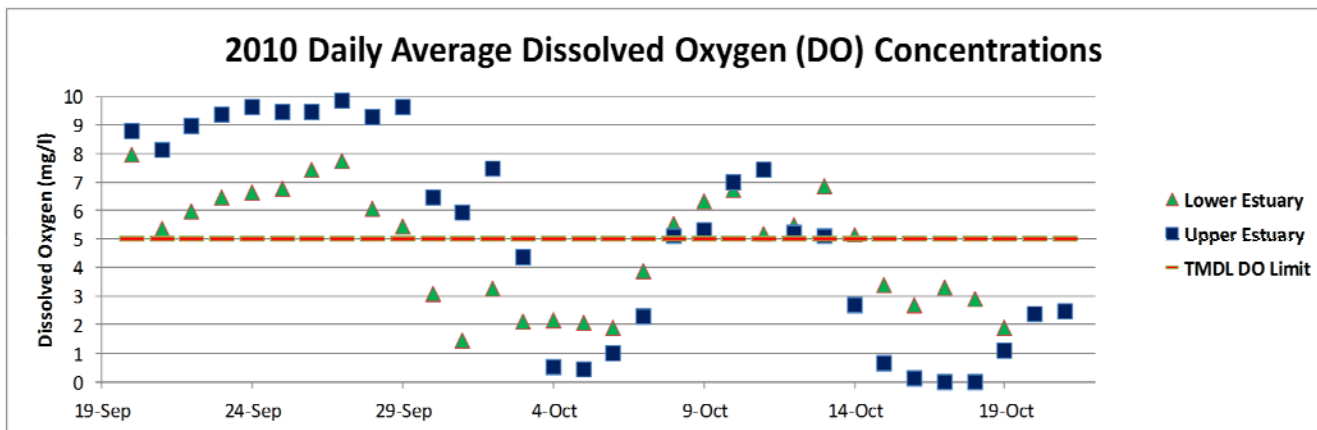
**Santa Margarita River Estuary Watershed**



**Water Quality Outcomes**

- The ultimate goal of this restoration approach is to reduce nutrient loading to the Estuary so that it fully supports its designated beneficial uses.
- The Regional Water Board is in the process of completing scientific peer review and finalizing the Draft Staff Report for the Santa Margarita River Estuary TMDL project.

**2010 Daily Average Dissolved Oxygen (DO) Concentrations**



Data Source: Santa Margarita Estuary Water Quality Monitoring Data, collected by SPAWAR Systems Center, San Diego.