

# Total Maximum Daily Load Progress Report

# Guadalupe River Watershed Mercury TMDL

Regional Water Board	San Francisco Bay, Region 2
<b>Beneficial uses affected:</b>	REC-1, RARE, WILD
<b>Pollutant(s) addressed:</b>	Mercury
<b>Implemented through:</b>	<a href="#">CWC §13267</a> , <a href="#">CWC §13304</a>
<b>Approval date:</b>	June 1, 2010

## STATUS

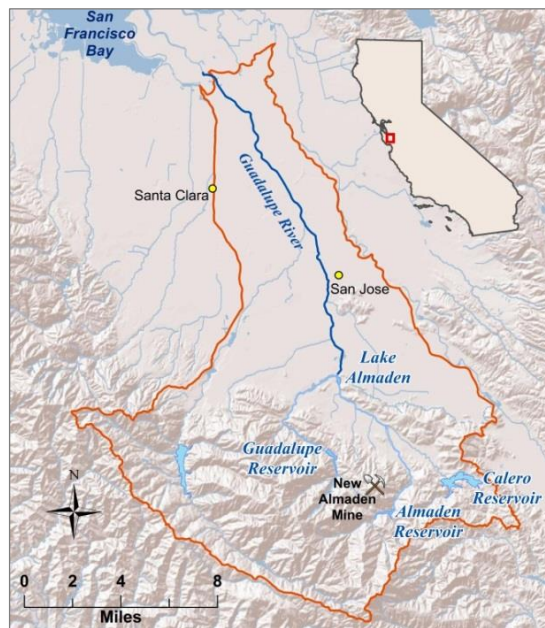
- Conditions Improving
- Data Inconclusive
- Improvement Needed**
- TMDL Achieved/Water Body Delisted

### TMDL Summary

Areas of the Guadalupe River Watershed downstream from the New Almaden Mine, the largest-producing mercury mine in North America, are impaired by mercury. Fish in these waters have extremely high mercury concentrations that greatly exceed the target set to protect human health. To address the high mercury levels the San Francisco Bay Regional Water Board developed the [Guadalupe River Watershed Mercury TMDL](#), which was approved by the U.S. EPA in June 2010.

The TMDL established mercury load reductions from mine activities and aqueous methylmercury allocations for reservoirs and lakes to achieve fish tissue objectives. Phase I of TMDL implementation focused efforts at the top of the watershed; mercury mine site owners are taking actions to reduce discharges (typically involving stabilization of mercury mining wastes) and the local water district has pilot studies underway to reduce methylation of mercury in reservoirs. Phase II of TMDL implementation will address downstream areas. The TMDL calls for targets to be attained before 2029. As of September 2013, monitoring data collected by the responsible parties is thus far inconclusive regarding changes in mercury concentrations.

### Guadalupe River Watershed



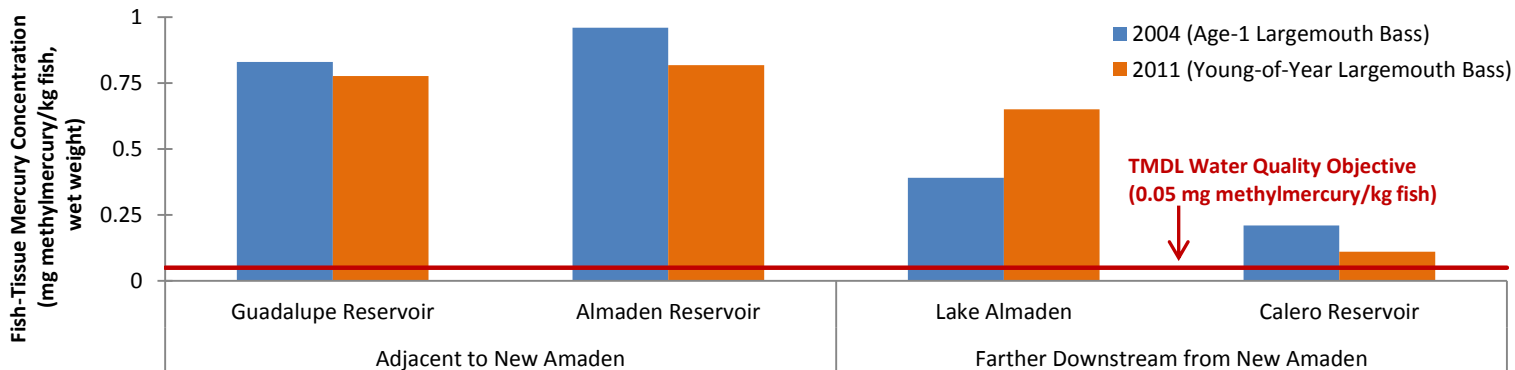
### TMDL Water Quality Objectives

Fish Size	TMDL Fish-Tissue Water Quality Objectives
Whole fish, trophic level 3 5-15cm long	0.05 mg methylmercury/kg fish (wet weight, average)
Whole fish, trophic level 3 15-35 cm long	0.1 mg methylmercury/kg fish (wet weight, average)

### Water Quality Outcomes

- Implementation actions have yet to result in significant improvement in fish mercury concentrations.
- Water quality data show exceedances of TMDL water quality objectives; reservoirs adjacent to New Almaden Mine show highest fish-tissue mercury concentration levels.
- Responsible parties established a coordinated water quality monitoring program.
- Santa Clara Valley Water District is continuing [voluntary methylmercury production and control studies](#); solar-powered circulators have been effective in suppressing methylmercury production at Lake Almaden but not in the Almaden or Guadalupe reservoirs.
- Mine property owners will continue clean-up actions to prevent mercury from eroding into surface waters.

### Guadalupe River Watershed Fish-Tissue Mercury Concentrations, 5-15 cm Long Fish



More information on 2011 Coordinated Monitoring Program efforts is available in the [2012 Annual Data Report](#).