

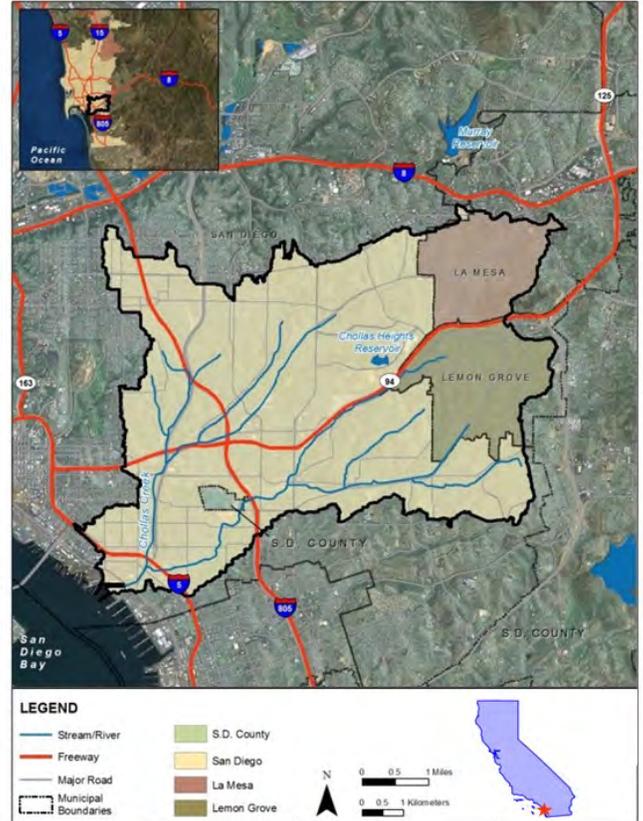
Water Quality Report Card	
Regional Water Board:	San Diego, Region 9
Beneficial Uses Affected:	WARM, WILD
Implemented Through:	NPDES Permits, Regional MS4 Permit
Effective Date:	October 22, 2008 (TMDL)
Attainment Date:	October 22, 2028

Copper, Lead, and Zinc in Chollas Creek	
STATUS	<input type="checkbox"/> Conditions Improving
	<input type="checkbox"/> Data Inconclusive
	<input checked="" type="checkbox"/> Improvement Needed
	<input type="checkbox"/> Targets Achieved/Water Body Delisted
Pollutant Type:	<input checked="" type="checkbox"/> Point Source <input type="checkbox"/> Nonpoint Source <input type="checkbox"/> Legacy
Pollutant Source:	Urban Storm Water Runoff

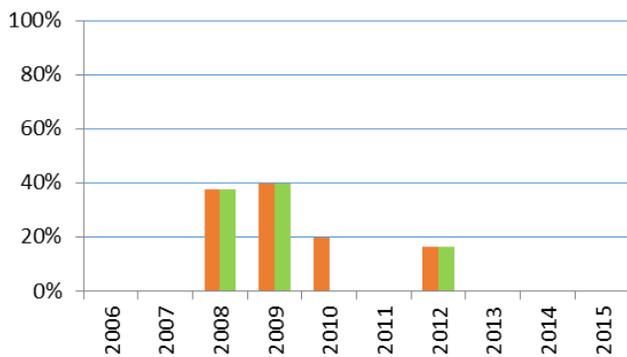
Water Quality Improvement Strategy

Chollas Creek is an urban coastal stream in southern San Diego County, and a tributary to San Diego Bay. The north fork of Chollas Creek converges with the south fork of Chollas Creek less than one mile upstream of where the Creek discharges into San Diego Bay. Chollas Creek was placed on the 303(d) List for copper, lead, and zinc in 1996. In 2008, the Water Quality Control Plan for the San Diego Basin (Basin Plan) was amended to include the [Chollas Creek TMDL for Metals](#) to address dissolved metals (copper, lead, and zinc), which was established for aquatic life protection for the Creek. Point source discharges from freeways, and commercial and institutional land uses, have been identified as contributing the highest loads of these metals. The Regional Water Board is responsible for updating National Pollutant Discharge Elimination System (NPDES) permits for storm water discharges to Chollas Creek that may contain dissolved metals that cause or contribute to acute or chronic toxicity to aquatic life. The NPDES permittees in the Chollas Creek Watershed that must meet updated permit requirements are: the municipal separate storm sewer system (MS4) co-permittees; Caltrans; the U.S. Navy; and industrial, construction, and landfill storm water dischargers. Permittees must meet 80 percent of the required waste load allocation (WLA) reductions by October 22, 2018 and 100 percent of the required WLA reductions by October 22, 2028. WLAs are calculated based on the hardness of the water at the time of sampling. The Regional Water Board may consider establishing site-specific water quality objectives (WQOs) for these metals in Chollas Creek in the future.

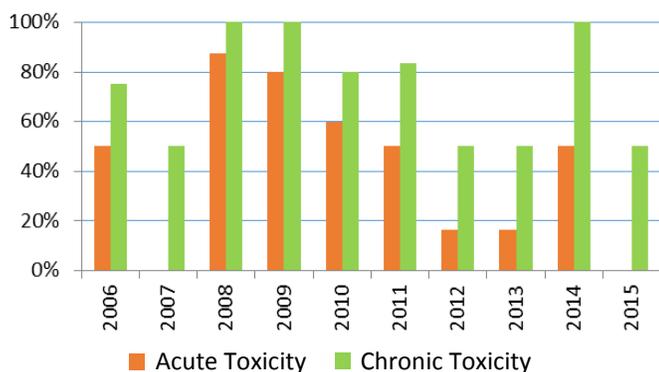
Chollas Creek Watershed



Zinc Water Quality Objective Exceedances in Chollas Creek



Copper Water Quality Objective Exceedances in Chollas Creek



Water Quality Outcomes

- Because the WQOs are based on water hardness and other factors at the time of sampling, the numeric values associated with acute and chronic toxicity for each metal vary with each sample. Monitoring data, for copper and zinc, from 2006 to 2015 were evaluated to show rates of WQO exceedances.
- Lead concentrations in Chollas Creek, in general, do not exceed WQOs for acute and chronic toxicity.
- In 2014, Caltrans completed a Best Management Practice (BMP) retrofit project to treat runoff from 25 acres of impervious highway surfaces in Chollas Creek Watershed. Post-project reduction of dissolved metals in effluent varied from 55 percent to 100 percent. Although influent samples significantly reduced fathead minnow growth, toxicity to fathead minnows was not observed in any effluent samples.
- The City of San Diego implemented BMPs in the watershed, including constructing basins with permeable components designed to maximize the removal of pollutants by capturing storm water and allowing it to infiltrate into groundwater. In some cases, the storm water also may undergo some chemical and biological treatment. The City of San Diego also increased catchment basin cleaning and street sweeping. These BMPs reduce the amount of metals entering Chollas Creek.