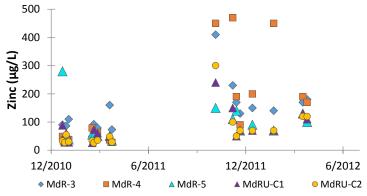
Water Quality Report Card		Zinc and Copper in Marina del Rey Harbor	
Regional Water Board:	Los Angeles, Region 4	STATUS	 Conditions Improving Data Inconclusive Improvement Needed Targets Achieved/Waterbody Delisted
Beneficial Uses Affected:	REC-1, MAR, WILD, COMM, SHELL		
Implemented Through:	<u>MS4 Permit</u> , <u>WDR</u> , Conditional Waiver of WDR		
Effective Date:	March 22, 2006		
Attainment Date:	2029	Pollutant Type	: 🗹 Point Source 🗹 Nonpoint Source 🗹 Legacy

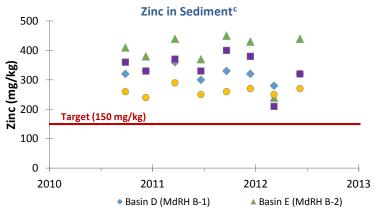
Water Quality Improvement Strategy

The back basins of Marina del Rey Harbor, located approximately 15 miles southwest of downtown Los Angeles, have been on the 303(d) list for several toxic pollutants (including zinc and copper in the sediment) since 1996. The primary source of metals and organic compounds to the sediment is urban storm water, while the primary source of dissolved copper to the water column is copper-based antifouling paints. Originally adopted in 2005, Region 4 adopted the revised Marina del Rey Harbor Toxic Pollutants TMDL in 2014 to address the impairment. The 2005 TMDL addresses toxic pollutant impairments in the sediment (copper, lead, zinc, chlordane, and total PCBs) in the water column (dissolved copper) and in fish tissue (PCBs); the 2014 revision added a DDT impairment, and extended the implementation schedule. The revised TMDL implementation schedule requires control of toxic pollutant sources by 2024, and the remediation of in-harbor sediments by 2029.

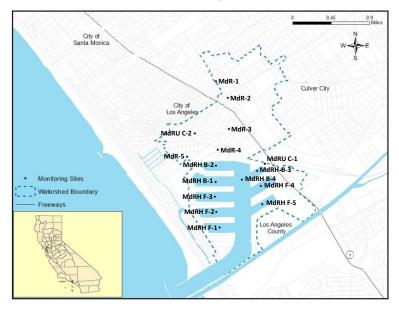
Dissolved Zinc in Storm Water at MS4 Monitoring Locations^a



^a Monitoring sites are designed to measure storm water from certain percentages of the watershed.

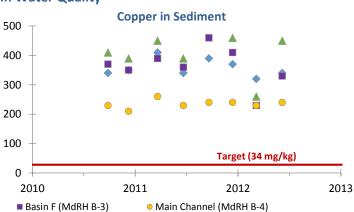


Marina del Rey Harbor



Water Quality Outcomes

- Water quality data demonstrate that sediment concentrations of copper and zinc continue to exceed water quality standards in the back basins and main channel.
- <u>Special studies</u> have been completed by the responsible parties, which were used to inform the <u>revised TMDL</u>.
- Implementation plans to address toxic pollutants in urban storm water have been submitted to Region 4 by the responsible parties. Plans include increased street sweeping, parking lot improvements, and the <u>Oxford Basin</u> <u>Multi-Benefit Enhancement Project</u>.
- *Region 4 is developing an enforcement strategy to reduce copper discharge from antifouling paints.*



Marina del Rey Back Basin Water Quality^b

Copper (mg/kg)

^b Data collected through TMDL Coordinated Monitoring Program (CMP).

^c Zinc samples taken on 9/27/10 and 12/9/10 measured non-detect for all PCBs at all sites.