

MARINA DEL REY HARBOR COPPER IMPAIRMENT FACTS

This factsheet was developed to provide information to the Marina del Rey community on the water column copper impairment in Marina del Rey Harbor (MdrH).

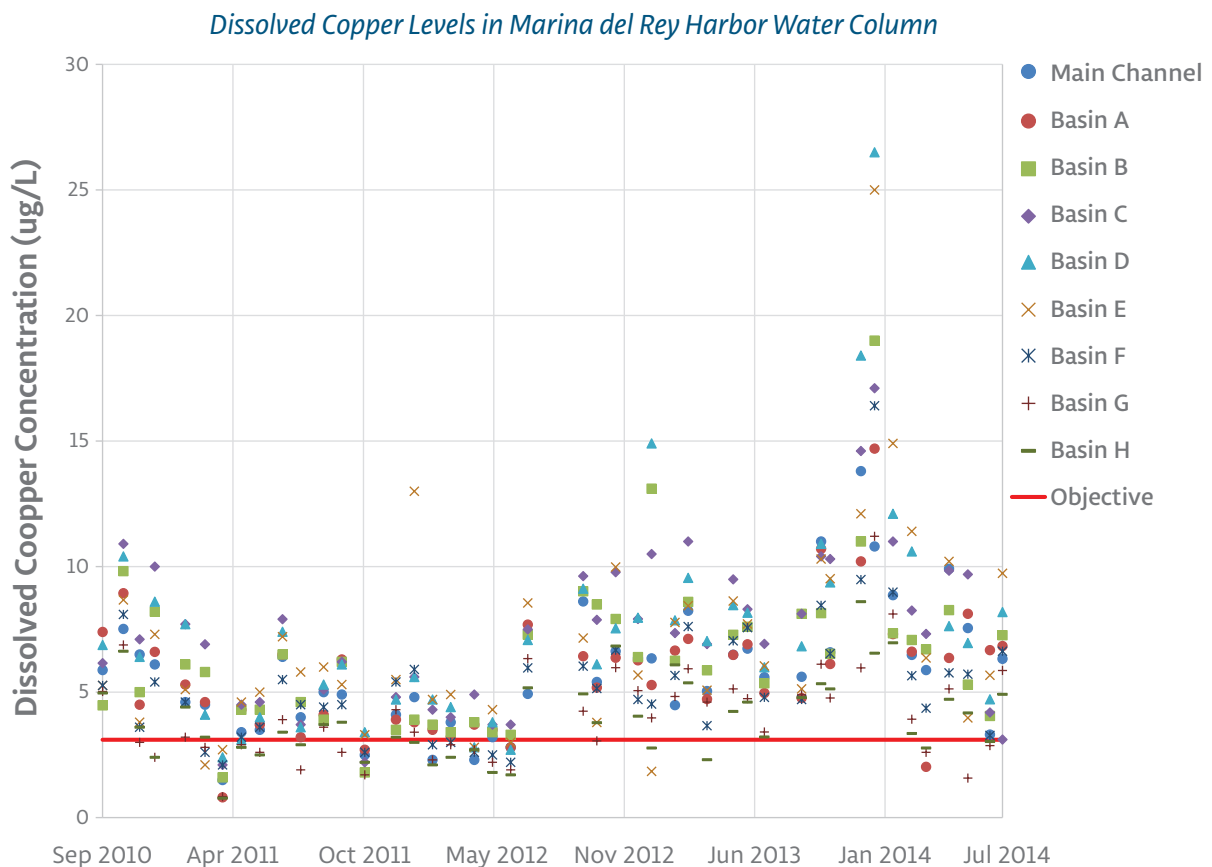
Is marine life in Marina del Rey Harbor impaired due to water column copper?

Yes. According to a study¹ conducted by the California Department of Pesticide Regulation in 2009, dissolved copper levels in the MdrH water column are at nearly 14 times background levels as defined at local reference sites and far above the regulatory limit set by the California Toxics Rule of 3.1 micrograms per liter (ug/L) (refer to table below). The study also conducted toxicity testing and modeling that indicated that the copper concentrations in MdrH are at levels that are likely to be toxic to copper sensitive organisms.

Test Location	Range of Dissolved Copper (ug/L)		Median of Dissolved Copper (ug/L)	
	Marina del Rey	Local Reference Site	Marina del Rey	Local Reference Site
MdrH Front Basins	8.9–16.2	0.3–4.7	12.4	1.0
MdrH Back Basins	8.1–18.4	0.3–4.7	13.6	1.0

Local Reference Site is a location adjacent to and just outside the marina, but within the same body of water.

In addition to the 2009 report, the Los Angeles Regional Water Quality Control Board stated in their 2015 staff report² that copper levels in MdrH exceed water column regulatory numeric targets (objectives). The objectives were developed to protect the environment and human health. The data used for the analysis was based on County supplied data and is reproduced in the figure below with additional data collected since the time of the report. The figure shows the objective level as a red line and the different basins as different colors and symbols for comparison purposes.



What are the sources of the copper impairment?

According to the two reports, the main source of water column copper impairment is attributed to copper based antifouling boat hull paint, along with in-water boat hull cleaning.

What is the County doing to mitigate the copper impairments?

The County is working with the boating community to determine feasible solutions to antifouling copper paints, which may include boatlifts, low leach rate copper paints, non-copper antifouling paints and non-toxic paints. The County is also planning on working with the in-water hull cleaning community to institute Best Management Practices for in-water activities.

*1 Monitoring for Indicators of Antifouling Paint Pollution in California Marinas, California
Department of Pesticide Regulation, 2009*

*2 Reconsideration of the Total Maximum Daily Load for Toxic Pollutants In Marina Del Rey Harbor
Los Angeles Regional Water Quality Control Board, 2015*



The County is working with boat owners and the in-water hull cleaning community to try and reduce copper impairment in the MdRH.

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