

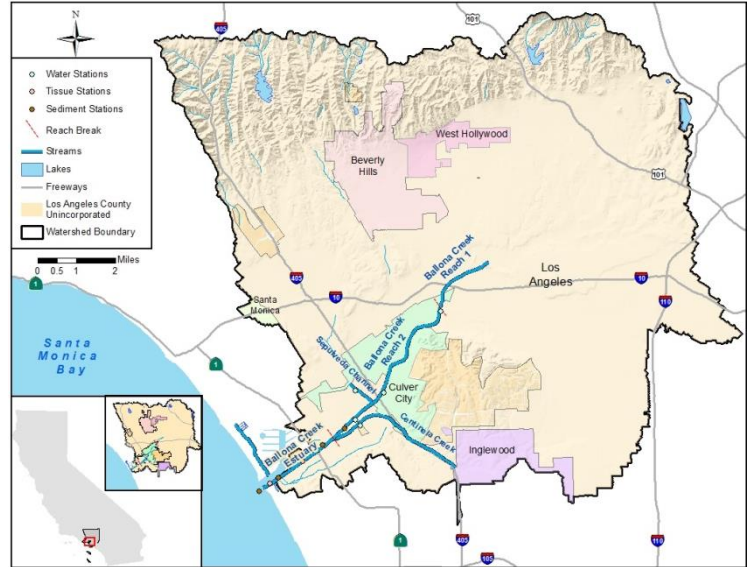
Water Quality Report Card	
Regional Water Board:	Los Angeles, Region 4
Beneficial Uses Affected:	WILD, WARM, RARE
Implemented Through:	MS4 Permit
Effective Date:	January 11, 2006
Attainment Date:	2021

Copper and DDT in Ballona Creek Estuary	
STATUS	<input type="checkbox"/> Conditions Improving
	<input type="checkbox"/> Data Inconclusive
	<input checked="" type="checkbox"/> Improvement Needed
	<input type="checkbox"/> Targets Achieved/Waterbody Delisted
Pollutant Type:	<input checked="" type="checkbox"/> Point Source <input checked="" type="checkbox"/> Nonpoint Source <input checked="" type="checkbox"/> Legacy

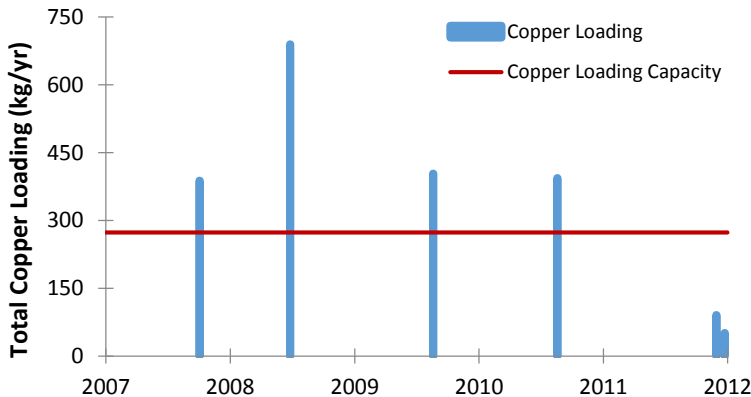
Water Quality Improvement Strategy

The Ballona Creek Watershed, located on the eastern edge of Los Angeles County, is a subwatershed of the Greater Santa Monica Bay Watershed. Channelization and construction of Marina del Rey Harbor altered the natural hydrology of Ballona Creek Estuary. Beneficial uses for Ballona Creek Estuary are impaired due to elevated concentrations of DDT, PCBs, cadmium, copper, lead, silver, zinc, and toxicity in the sediment. The pollutants are associated with suspended solids from urban run-off conveyed through municipal storm drains. To address the impairments, Region 4 adopted the [Ballona Creek Estuary Toxics TMDL](#), which established numeric targets for toxic pollutants in the sediments of the estuary, and a phased reduction of metals and bioaccumulatives. A [revised TMDL](#), adopted in December 2013, added new fish tissue numeric targets. Implemented through storm water permits ([L.A. County MS4](#), [Caltrans](#), and general [construction](#) and [industrial](#) permits), permittees within the watershed are required to achieve loading allocations by 2021 to attain water quality standards.

Ballona Creek Watershed



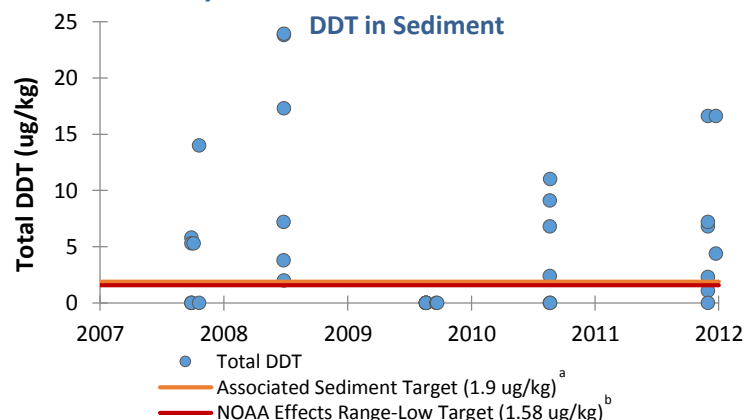
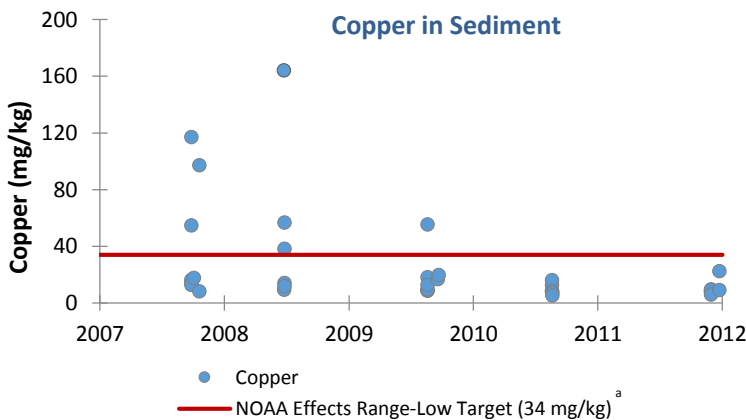
Total Copper Loading to Ballona Creek Estuary



Water Quality Outcomes

- Sediment quality data demonstrate that the copper numeric targets have been consistently met since mid-2008.
- Sediment quality data demonstrate that DDT concentrations in sediment have not improved; numeric targets are regularly exceeded.
- Improvements in copper concentrations may be due to lower storm water volumes and newly-installed storm water BMPs.
- Implementation challenges include collecting sufficient storm-borne sediment from the watershed and ongoing copper loading from vehicular brake pads.
- Continued implementation of the TMDL projects and provisions within the recently updated [MS4 permit](#), and other permits, will help to attain water quality standards.

Ballona Creek Estuary Sediment Quality



^a Sediment quality guidelines for direct effects compiled by the National Oceanic and Atmospheric Administration (NOAA) are used as the numeric targets for metals in sediments.

^b A secondary target, the fish-tissue associated sediment target provides another means of assessing desired water