

State of California
Regional Water Quality Control Board
San Diego Region

EXECUTIVE OFFICER SUMMARY REPORT
DECEMBER 14, 2016

ITEM: 10

SUBJECT: Tentative Resolution No. R9-2016-0148: A Resolution Amending the Water Quality Control Plan for the San Diego Basin to Incorporate Site-Specific Water Effect Ratios into Water Quality Objectives for Toxic Pollutants and Total Maximum Daily Loads for Copper, Lead, and Zinc in Chollas Creek (*Melissa Valdovinos*)

PURPOSE: To consider adoption of Tentative Resolution No. R9-2016-0148 to amend the Basin Plan as follows:

1. Update Chapter 3 of the Basin Plan to clarify the application of water effect ratios (WERs) in the California Toxics Rule (CTR) for developing site-specific water quality objectives (WQOs);
2. Update Chapter 3 of the Basin Plan to apply site-specific WERs to dissolved copper and dissolved zinc in Chollas Creek during wet weather; and
3. Update Chapter 7 of the Basin Plan to revise WER values and associated water quality criteria calculations.

RECOMMENDATION: Adopt Tentative Resolution No. R9-2016-0148 (Supporting Document No. 1)

KEY ISSUES: The proposed Basin Plan amendment would update the WER values and associated water quality criteria calculations for the Chollas Creek Metals Total Maximum Daily Load (TMDLs). These updated water quality criteria calculations, based on site-specific WERs, would result in site-specific WQOs.

During the California Environmental Quality Act (CEQA) public participation process for this proposed Basin Plan amendment, two general concerns were raised by U.S. Fish and Wildlife Service and San Diego Coastkeeper (Coastkeeper):

1. By increasing the allowable dissolved metals WQOs and TMDL targets for Chollas Creek, downstream beneficial uses at the creek mouth in San Diego Bay could potentially be adversely affected.
2. Postponing adoption of the Chollas Creek WERs until conclusion of Investigative Order No. R9-2015-0058 *Investigation of Sediment Quality in the Mouth of Chollas Creek in San Diego Bay* could provide useful information regarding actions needed to reduce copper and zinc coming from the creek.

During the 30-day public comment period for the proposed Basin Plan amendment, Coastkeeper again expressed concerns over potential downstream impacts in an October 2016 letter. The letter was also submitted on behalf of Coastal Environmental Rights Foundation (CERF) and expressed additional concerns, such as how the study used to develop the WERs was conducted. The WER-related sampling for this study was performed in 2010 and results were presented in a 2014 report, *Development of Site-Specific Water Quality Objectives for Trace Metals in Chollas Creek: Water-Effect Ratio Study for Copper and Zinc, and Recalculation of Lead* (Appendix A of Supporting Document 2).

Consistency with U.S. Environmental Protection Agency (USEPA) guidance for developing WERs, employing sound science during the WER study, and subsequent peer review performed by unbiased technical experts support the conclusion that adopting site-specific WERs will be protective of beneficial uses.

PRACTICAL VISION:

When this project was approved as part of the 2014 Basin Plan Triennial Review, the Board recognized it as an application of the Practical Vision to work collaboratively with the regulated community to incorporate the latest scientific understanding into WQOs, while ensuring it is both reasonable and still fully protective of beneficial uses.

DISCUSSION:

Tentative Resolution No. R9-2016-0148 amends Chapter 3 of the Basin Plan to clarify the application of WERs for developing site-specific WQOs and also updates Chapter 7 of the Basin Plan to revise the Chollas Creek WER values and associated water quality criteria calculations for Total Maximum Daily Loads (TMDLs) for copper, lead, and zinc in Chollas Creek. These TMDLs are associated with protection of aquatic life in Chollas Creek. When the TMDLs went into effect in October 2008, data was not available to quantify site-specific WERs. In the absence of site-specific data, the default value of 1.0 was used to calculate the CTR water quality criteria, which implies that Chollas Creek water is equivalent to the laboratory water used by USEPA to derive the national metals criteria used in the CTR criteria. This is not representative of actual Chollas Creek conditions.

In reality, the conditions of a water body, such as dissolved organic carbon content, suspended solids, pH, and other physicochemical factors affect bioavailability. Metals that are less bioavailable are less toxic. A WER correlates a metal's concentration in receiving waters to the concentration that is biologically available and toxic to aquatic life. USEPA recognizes that the national criteria for dissolved metals, including those for copper and zinc, might be more or less protective than anticipated, depending on the site-specific water quality conditions. As a consequence, USEPA developed procedures and guidance for deriving site-specific WQOs for metals.

Following adoption of the TMDLs, the City of San Diego collected Chollas Creek data to develop site-specific WERs that can now be incorporated into the CTR water quality criteria equations. This applies to wet weather conditions only. The aforementioned 2014 City of San Diego WER report recommends replacing the default WER value of 1.0 with site-specific WERs of 6.998 for copper and 1.711 for zinc (during wet weather) based on USEPA guidance. Although the original Chollas Creek Metals TMDLs include lead, at this time, there is no site-specific WER developed for lead due to neutral pH conditions (making lead very insoluble) and low concentrations of lead detected in Chollas Creek. In absence of a site-specific value, the WER for lead will remain the default value of 1.0. During dry weather conditions, the WER values for copper and zinc will also remain the default value of 1.0.

Public comments and concerns regarding potential downstream impacts to San Diego Bay were addressed initially by staff following the CEQA scoping meeting (Supporting Document 3) and subsequently as part of the scientific peer review that was performed in March 2016. The peer reviewers did not find any significant areas of concern with respect to downstream impacts (see comments and responses in Appendix B of Supporting Document 2).

San Diego Water Board staff also addressed, over the phone with Coastkeeper and CERF, the concerns expressed in their October 2016 letter (Supporting Document 4). San Diego Water Board staff are in the process of finalizing a response letter, which will be included in the supplemental agenda package.

LEGAL CONCERNS:

None

SUPPORTING DOCUMENTS:

1. Tentative Resolution No. R9-2016-0148 (December 2016)
2. Technical Report for Tentative Resolution No. R9-2016-0148 (December 2016)
3. Response to CEQA Scoping Meeting Comments (February 2016)
4. 30-Day Public Review Comment Letter (October 2016)

PUBLIC NOTICE:

The notice of public hearing for the proposed Basin Plan amendment was posted on the San Diego Water Board's website on September 29, 2016; announced via the "Basin Planning Issues" Lyris list on September 30, 2016; and published in the San Diego Union-Tribune newspaper on October 28, 2016. Notice was also provided in the agenda for the December 14, 2016 Board meeting, which was posted on the San Diego Water Board's website.