
Santa Ana Regional Water Quality Control Board

Project Summary Protecting Newport Bay by Reducing Copper (and other Metals)

The Santa Ana Regional Water Quality Control Board (SARWQCB, or Regional Board), a state agency, is tasked with protecting and improving water quality in the Santa Ana Region, which includes Newport Bay. We are seeking cooperation from boaters, marinas and boatyards in Newport Bay to work towards improving water quality in Newport Bay so that we can protect this important resource that we all value.

Background

In Newport Bay, copper (Cu) exceeds the water quality standards, and the largest source of Cu to the Bay is Cu antifouling paints on boat hulls. These Cu paints release Cu into the surrounding waters to prevent fouling on the boat hulls; however, the Cu released may also harm “non-target” organisms in the water and sediment. Cu can cause “sublethal” effects on fish (gill and nervous system damage), and mortality in invertebrates (animals that live in the sediments and that fish eat). The Cu concentrations in Newport Bay are harmful to aquatic life, and must be decreased to meet the water quality standards to protect the fish and other marine animals living in the Bay.

One regulatory document that addresses pollution in a water body is a TMDL (Total Maximum Daily Load), which includes limits for the discharge of a pollutant into a water body. The U.S.EPA (EPA) already issued Toxics TMDLs for Newport Bay in 2002, including TMDLs for Cu and other metals. In that analysis, EPA also found that Cu antifouling paints are the largest source of Cu to the Bay. These TMDLs must be revised based on new data, and a plan and schedule for pollutant reduction must be identified. Regional Board staff have developed a draft revised Cu TMDL to reduce the amount of Cu released from boat hulls in a timely manner.

In addition, other metals exceed sediment and fish tissue guidelines in Newport Bay. These include zinc (Zn) and mercury (Hg) in sediments and Zn in fish tissue in Lower Newport Bay; and arsenic and chromium in fish tissue in the Upper and Lower Bay. Regional Board staff are developing recommended Non-TMDL Action Plans (Action Plans)¹ for other metals. The Cu TMDLs and Action Plans will help to restore Newport Bay to a healthier and more natural environment to ensure that aquatic life will be protected.

Note that Cu exceedances of the water quality standard are not limited to Newport Bay. Dissolved Cu concentrations also exceed the water quality standard in Marina del Rey (Los Angeles county) and Shelter Island Yacht Basin (San Diego county), and for both of these marinas similar Cu TMDLs have been adopted to reduce Cu concentrations in these marinas. Implementation of these regulatory plans has already begun.

¹ A Non-TMDL Action Plan (Action Plan) is similar to a TMDL, but does not include pollutant allocations.

Proposed Cu TMDL

In order to meet this draft Cu TMDL, Cu discharges from boat hulls must be reduced by 83%. The proposed Cu TMDL will be phased and will allow 15 years to reduce Cu discharges from boats. This will allow boaters to convert their boats from Cu to nontoxic paints **as hull repainting is needed during normal boat maintenance**. Additional options to reduce Cu from boat hulls include 1) the use of best management practices (BMPs) by all hull cleaners (such as the use of softer pads for hull cleaning), and 2) the use of slip liners, especially during hull cleaning. In addition, Cu concentrations in sediments must be reduced, and dredging is recommended.

Regional Board staff and partners have been working with paint manufacturers and boatyards to provide to boaters alternative non-toxic paints that are both viable and cost-effective. Board staff have also been working to investigate potential funding options to assist with the conversion from Cu to non-toxic or less toxic paints.

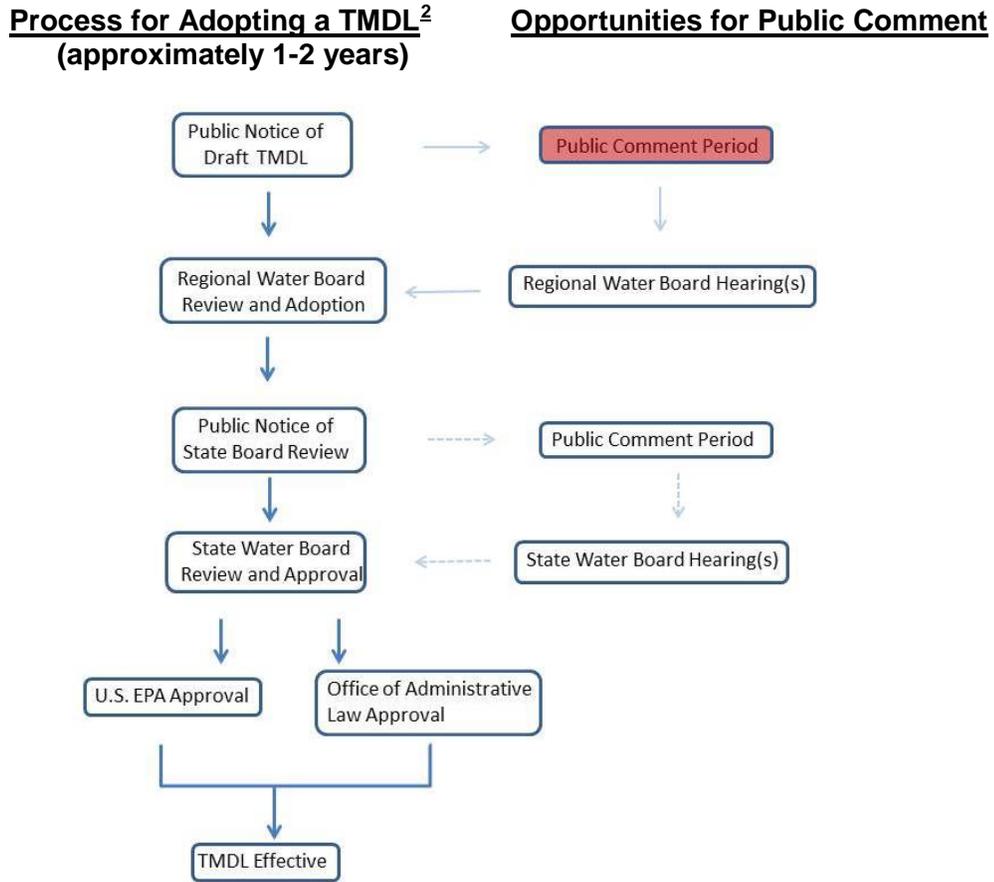
Proposed Non-TMDL Action Plans for Other Metals

Non-TMDL Action Plans (Action Plans) are recommended to address exceedances in zinc (Zn) and mercury (Hg) in the Lower Bay, and arsenic (As) and chromium (Cr) in the Upper and Lower Bay. These Action Plans are currently being developed.

TMDL Process

TMDLs must go through a lengthy approval process before they become effective. The CEQA Scoping meeting is the first step, where Regional Board staff introduce the planned project and solicit input concerning the environmental issues that must be considered. This meeting is followed by the issuance of a draft TMDL and a minimum 45-day public comment period.

The public comment period is then followed by a Regional Board public hearing at which adoption of the TMDL is considered. To become effective, the TMDL must also be approved by the State Water Board, the Office of Administrative Law and the U.S. Environmental Protection Agency. It is anticipated that the Regional Board public hearing process will be initiated in late 2015.



FURTHER INFORMATION

“Citizens Guide to Working with the California Water Boards

http://www.waterboards.ca.gov/publications_forms/publications/general/docs/citizenguide2011.pdf

Information on Alternative Antifouling Strategies

Copper Reduction Program, Port of San Diego:

<http://www.portofsandiego.org/environment/copper-reduction-program.html>

Technical information and documents for the proposed revised Copper (Cu) TMDL and Metals Non-TMDL Action Plans for Newport Bay

http://www.waterboards.ca.gov/santaana/water_issues/programs/tmdl/tmdl_metals.shtml

To receive updates regarding TMDLs for Newport Bay, please visit the following website and subscribe to the “TMDL Newport Bay Copper – Metals” list:

http://www.waterboards.ca.gov/resources/email_subscriptions/reg8_subscribe.shtml

For questions or comments, please send an email to:

RB8-CuTMDL@Waterboards.ca.gov

² “Process for Adopting a TMDL” diagram courtesy of LA Regional Board staff