

**California Regional Water Quality Control Board  
Santa Ana Region**

**July 24, 2015**

**ITEM: 14**

**SUBJECT: Newport Bay Copper TMDL and Non-TMDL Action Plans for other Metals**

Santa Ana Regional Board staff will review proposed revisions to USEPA's Metals TMDLs for Newport Bay, which were promulgated in 2002. This will include discussion of a draft revised Copper (Cu) TMDL, with an implementation plan, and draft Action Plans for other metals found to be causing impairment in the Bay. A Basin Plan amendment will be prepared for future Regional Board consideration to incorporate the revised metals control strategies in the Basin Plan.

To initiate the Basin Plan amendment process, Board staff conducted two CEQA scoping meetings on July 23, 2015 in the City of Newport Beach. The purpose of these meetings was to solicit input concerning the environmental issues that should be addressed in the environmental analysis required for consideration of the adoption and implementation of the metals TMDL/Action Plan Basin Plan amendment. A project summary sheet was distributed to interested parties in advance of the scoping meetings. This summary sheet is attached.

Copper antifouling paints on recreational boats are the largest source of copper discharges to the Bay. Copper discharges from these paints must be reduced to meet the draft copper TMDL for Newport Bay. (USEPA's Copper TMDL also identifies copper antifouling paints as the largest source of copper to Newport Bay and requires significant reduction of that source.) Similar Copper TMDLs have been adopted for Shelter Island Yacht Basin (San Diego) and Marina del Rey (Los Angeles), and the issue of reducing the use of copper hull paints to meet the copper TMDLs has been controversial.

Board staff believes that other metals causing impairment can and should be addressed by dredging or other control/remediation strategies, rather than via TMDLs. Action Plans will be proposed to address these other metals.

It is expected that upon approval, the proposed Cu TMDL and metals Action Plans will supplant the USEPA metals TMDLs.

Documents relevant to the proposed CuTMDL/metals Action Plans for Newport Bay may be found at:

[http://www.waterboards.ca.gov/santaana/water\\_issues/programs/tmdl/tmdl\\_metals.shtml](http://www.waterboards.ca.gov/santaana/water_issues/programs/tmdl/tmdl_metals.shtml)

---

## 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)<sup>1</sup> 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.

---

<sup>1</sup> 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 methods 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.

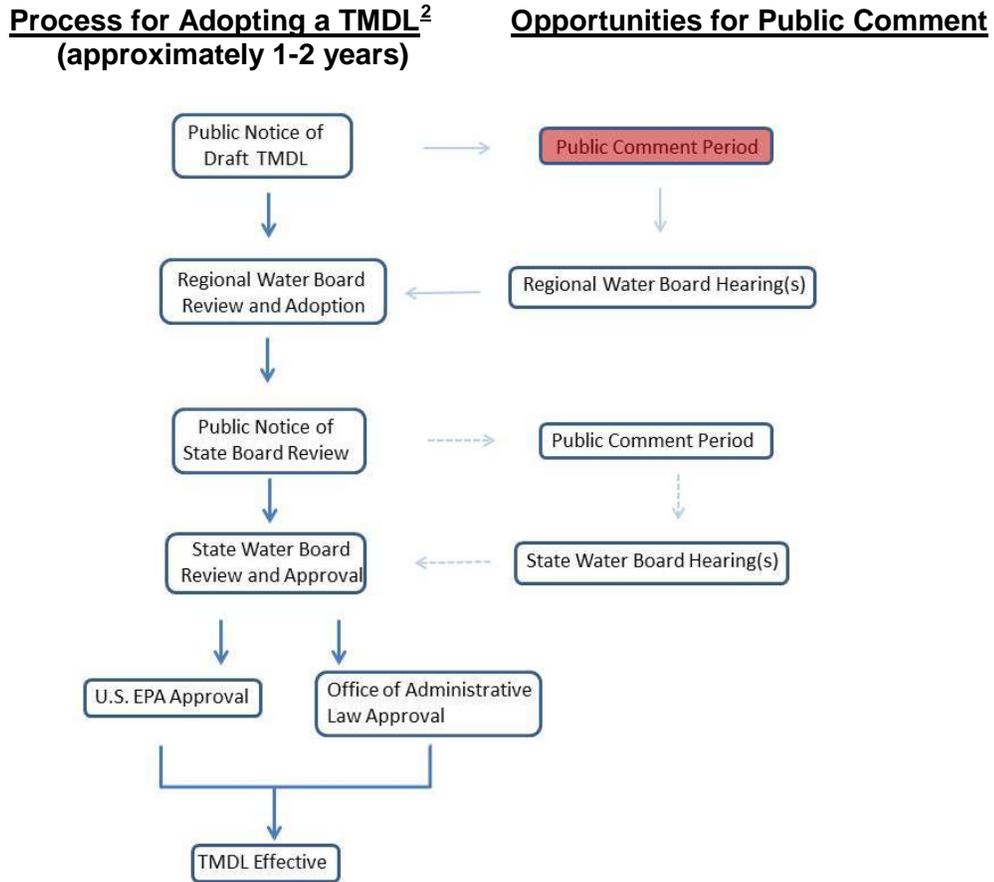
### **Proposed Non-TMDL Action Plans for Other Metals**

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](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](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](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](mailto:RB8-CuTMDL@Waterboards.ca.gov)

<sup>2</sup> “Process for Adopting a TMDL” diagram courtesy of LA Regional Board staff