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SECRETARY FOR
ENVIRONMENTAL PROTECTION

Santa Ana Regional Water Quality Control Board

October 8, 2015

Greg Gibeson, President
Recreational Boaters of California
925 L Street, Suite 260
Sacramento, CA 95814
campaign@rboc.org

Response to Recreational Boaters of California (RBOC) Letters to Chairman Ruh regarding revised Copper TMDL for Newport Bay

Dear RBOC Members:

This letter provides Regional Board's staff response to RBOC's comments/concerns stated in members' letters to Chairman Ruh and Regional Board members regarding the proposed revised Copper TMDL for Newport Bay. Approximately 65 letters were received from RBOC members (Attachment 1). All letters contained the same comments/concerns.

RBOC members "urge that the board delay a revised total maximum daily load [TMDL] for copper that would impact the use of copper-based anti-fouling paints on boat hulls in Newport Bay until the following essential actions take place:"

Board staff will address each recommended action separately.

RBOC suggested action 1: "until...A site specific study of Newport Bay has been conducted. This will provide detailed information that is accurate and can serve as the basis for informed scientific decisions."

Board Staff Response 1.
A number of site specific studies and monitoring have been conducted in Newport Bay, and metals monitoring by the County of Orange is ongoing.

1) Regular Monitoring. The County of Orange conducts annual stormwater and Bay monitoring on copper (Cu) and other metals http://ocwatersheds.com/rainrecords/waterqualitydata
2) Lower Newport Bay Copper-Metals Marina Study. This study analyzed water and surface sediment samples for copper and other metals from a subset of marinas in the Bay. http://www.waterboards.ca.gov/santaana/water_issues/programs/tmdl/tmdl_metals.shtml
3) Metals Sediment Study in Lower Newport Bay (Post-dredging). This study analyzed surface sediment samples in post-dredged areas in the Lower Bay and in some marinas evaluated in the Lower Bay Copper-Metals Marina Study. Water and sediment samples were analyzed for metals. http://www.waterboards.ca.gov/santaana/water_issues/programs/tmdl/tmdl_metals.shtml

In addition, the Biotic Ligand Model (BLM) was run with site-specific data from the Bay (Lower Newport Bay Copper-Metals Marina Study) to derive Copper (Cu) BLM criteria. The Saltwater Cu BLM criteria are significantly related to the dissolved organic carbon (DOC) concentrations in

saltwater. Note that the DOC concentrations varied seasonally in Newport Bay during the study. Since a Cu BLM criterion is generated for each sample, we were able to determine that when the DOC concentrations were below 1mg/L, the Cu BLM criteria were close to the CTR acute Cu criterion (4.8µg/L); when the DOC concentrations were below 0.5mg/L, the Cu BLM criteria were close to the CTR chronic Cu criterion (3.1µg/L). DOC data from Newport Bay, collected by the County of Orange, were also highly variable.

RBOC comment/concern 2: "until...The USEPA approves the Biotic Ligand Model [BLM] for determining copper toxicity in salt water. This approval is forthcoming and would facilitate accurate site-specific information regarding Newport Bay."

Board Staff Response 2. The Saltwater Cu BLM has already been run with data from Newport Bay. When the DOC is below 0.5mg/L, the Cu BLM criterion is at or below the Cu CTR criterion of 3.1ug/L. (See Response 1.)

RBOC comment/concern 3: "until...Alternatives to copper-based anti-fouling paints are available, affordable and effective. It is critical that recreational vessels have anti-fouling surfaces on their hulls for effective operation and prevention of invasive species."

Board Staff Response 3. Some alternatives to Cu antifouling paints are available, affordable and effective. The Port of San Diego conducted an alternative paint study, "Safer Alternatives to Copper Antifouling Paints", to determine whether alternative paints were available, viable and economical. They determined that there were a number of alternative paints that met the criteria.
https://www.portofsandiego.org/environment/environmental-downloads/cat_view/157-environment/285-alternative-hull-paint.html

In addition, the Port received a 319(h) grant from USEPA to reduce Cu paints in Shelter Island Harbor to meet requirements of the Shelter Island Cu TMDL. They initiated a Cu reduction program to financially assist boaters to convert boats from Cu to nontoxic paints, a diver certification program to ensure that divers used best management practices (BMPs) for hull cleaning, and developed a matrix to help boaters to determine what nontoxic or non-Cu paint to use on their particular boat.
https://www.portofsandiego.org/environment/environmental-downloads/cat_view/157-environment/438-copper-reduction-program.html

Board staff acknowledge that the initial cost of converting from Cu to nontoxic paints may be more expensive than repainting with Cu paints. The higher initial cost is due to the necessity of the stripping of Cu paints and the spraying on, rather than rolling on, of nontoxic paints; however, most nontoxic paints last longer (5-7 years) than Cu paints (2-3 years). Because of this additional initial cost, Board staff worked with Orange County Coastkeeper to acquire a 319(h) grant to reduce Cu from boats in Newport Bay. This grant included a financial incentive program to assist boaters in converting from Cu to nontoxic paints. This grant was successful in that the City of Newport Beach passed a resolution encouraging boaters to use non-Cu paints in place of Cu paints, and a boater education program was established to educate boaters on Cu problems in Newport Bay and the availability of nontoxic paints. Some boats were converted to nontoxic coatings.

RBOC comment/concern 4: Based on statements made at the July 28 *(sic)* [July 23, 2015] scoping meeting held by the regional board, there is a significant absence of accurate information regarding Newport Bay, boats in the bay, and copper paint alternatives. The

requested actions are essential to provide the information that will inform decisions that will protect the environment and preserve recreational boating.

Board Staff Response 4. Board staff agree that accurate information is essential in the development of a Cu TMDL for Newport Bay; however, we do not agree that "there is a significant absence of accurate information regarding Newport Bay, boats in the bay, and copper paint alternatives".
1) A number of site-specific studies and monitoring have been conducted in Newport Bay and monitoring by the County of Orange is ongoing. (See Response 1.)
2) Board staff have consulted with the City of Newport Beach regarding the number of slips/boats in Newport Bay.
3) Some alternative paints are available, viable and economical compared to Cu paints, and the Port of San Diego has been conducting a 319(h) study in which boats in Shelter Island are being converted from Cu to nontoxic paints. (See Response 3.)

In addition, USEPA promulgated a Cu TMDL for Newport Bay in 2002, and this Cu TMDL is still in place and must be implemented. USEPA's Cu TMDL requires a 90% reduction in Cu loading from Cu paints on boat hulls, while the proposed revised Cu TMDL has a lower reduction requirement of 86%. If the revised Cu TMDL that Board staff are proposing is not adopted, then Board staff will be required to implement USEPA's Cu TMDL with the higher Cu reduction requirement.If you have any further questions/comments or would like to discuss, please contact Linda Candelaria, PhD (RB8-CuTMDL@Waterboards.ca.gov) or Joanne Schneider (jschneider@waterboards.ca.gov).

Sincerely,

Kurt V. Berchtold
Executive Officer
Santa Ana Regional Water Quality Control Board

cc: Regional Board

Attachment 1. List of stakeholders who sent letters as part of the RBOC campaign.

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Mark Rinkel	8/11/15, 8/14	Orangevalle, CA
Patti Mangan	8/11	San Francisco, CA
Eric Hardt	8/11	Redondo Beach, CA
Linda Bendsen	8/12	Suisun City, CA
Chuck Iverson	8/12	Newport Beach, CA
Andy Fuller	8/12	Laguna Hills, CA
J Erickson	8/12	Sausalito, CA
Maggie Sabovich	8/13	Crocket, CA
Jack Vetter	8/13	Sacramento, CA
Daniel Hodge	8/13	Newport Beach, CA
Anne Sacks	8/13	Venice, CA
Helen Zidek	8/13	Castro Valley, CA
Michael Coleman	8/13	Vacaville, CA
Robert Larson	8/13	San Francisco, CA
Russ Robinson	8/13	Cupertino, CA
Michael Fanfa	8/13	San Leandro, CA
Samantha Fordyce	8/13	Vallejo, CA
Bradford Weston	8/13	Vallejo, CA
Michael Williams	8/13	Vallejo, CA
George Louis	8/13	Petaluma, CA
Kate Aguilar	8/13	Concord, CA
Joseph DePietro	8/13	Davis, CA
Mike Dyslin	8/13	San Jose, CA
Ray Kaleda	8/13	Los Gatos, CA
Jerry Puglia	8/13	Vallejo, CA
Howard Redding	8/13	Vallejo, CA
Robbie Gabriel	8/13	Vallejo, CA
steve kraus	8/13	Ojai, CA
MARTHA DUKES	8/13	Hayward, CA
Jean Lund	8/13	Davis, CA
Kenneth Leslie	8/13	Vallejo, CA
Richard Engfer	8/14	San Jose, CA
Ken Dretzka	8/14	Dixon, CA
Jeff Ellis	8/14	Boonville, CA
Leo Feltz	8/14	Walnut Creek, CA
Robert Paulsen	8/14	Alameda, CA
Richard Rescho	8/14	San Carlos, CA
Robbie Gabriel	8/14	Vallejo, CA
Jennifer Hinkel	8/14	Sausalito, CA
Robert Edgley	8/14	Sonoma, CA
Diana Gentry	8/14	Walnut Grove, CA
Clifford Park	8/14	Walnut Grove, CA
JERRY MCDANIEL	8/14	Benicia, CA
Doug Hipsley	8/14	Walnut Creek, CA
GARY PHEATT	8/16	Vallejo, CA
ray mceneaney	8/17	Fairfield, CA
Dick Wrenn	8/18	Piedmont, CA
Roy Yates	8/18	Redwood City, CA
Kent Myers	8/19	San Leandro, CA

Patty Ware	8/19	San Leandro, CA
Denise Abero	8/20	San Leandro, CA
Melvin Abero	8/20	San Leandro, CA
GayleAnn Frank	8/20	Benicia, CA
Brad Gross	8/20	Dana Point, CA
Carolyn Glennon	8/20	San Leandro, CA
Steven Grogan	8/21	Alameda, CA
Lolan Ellis	8/21	Alameda, CA
PAUL ANDERSON	8/21	Los Altos, CA
James Catto	8/21	San Jose, CA
Jeff Olmstead	8/21	Sunnyvale, CA
Donna Beckett	8/22	Alameda, CA
Terri Mullen	8/22	Reno, CA
John Marshall	8/27	Aliso Viejo, CA
Larry Fortmuller	8/30	Newport Coast, CA