IRVINE COMPANY
Since 1864

August 24, 2018

Santa Ana Regional Water Quality
Control Board (Regional Board)
3737 Main Street, Suite 500
Riverside, CA 92501-338

Attention: Linda Candelaria, Ph.D.
RB8.CuTMDL@Waterboards.ca.gov

Dear Dr. Candelaria and Members of the Board,

We appreciate the opportunity to provide comments on the proposed total maximum daily load (TMDL) for copper in Upper and Lower Newport Bay as described in the Supplemental Staff Report for Basin Plan Amendments to Incorporate Total Maximum Daily Loads (TMDLs) for Copper (Cu) and Non-TMDL Action Plans for other Metals in Newport Bay, dated July 9, 2018 (Supplemental Staff Report, or SSR)[1] and in the proposed Basin Plan Amendments (BPA).[2]

Irvine Company's commitment to environmental protection and conservation guides our actions in the watershed. We have been a partner with the Regional Board, the County, cities, and NGOs within the Newport Bay watershed, and our participation in TMDL working groups demonstrates our commitment to addressing environmental concerns in the watershed. We recognize that an ecologically healthy Bay is central to the economic health of the local area and to the appeal of the Bay as a destination for boating and recreation.

We are writing to request that the Regional Board decline to adopt the proposed TMDL for copper at the current time, and instead work collaboratively with stakeholders, per the commitments made at the October 2016 Regional Board hearing, to update the evaluation of the current condition of the Bay, to define clearly any problems that require action, and to develop an effective, efficient, and collaborative solution for Newport Bay. We commend the Regional Board for updating its impairment assessment of the sediments in Newport Bay. Because the Regional Board has concluded that the

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[1] RWQCB 2018. Supplemental Staff Report – Basin Plan Amendments for Copper TMDLs and Non-TMDL Metals Action Plans for Zinc, Mercury, Arsenic and Chromium in Newport Bay, California. Santa Ana Regional Water Quality Control Board. July 9.
[2] Attachment A to Resolution No. R8-2018-0071. Amendments to the Water Quality Control Plan – Santa Ana Region to incorporate the Newport Bay Copper (Cu) TMDLs, and Non-TMDL Action Plans for Zinc (Zn), Mercury (Hg), Arsenic (As) and Chromium (Cr).

sediments are not impaired for copper and because sampling efforts are underway to characterize the sediments of the Bay using the State's Sediment Quality Objectives policy, we request that the sediment targets and implementation tasks be deleted from the Copper TMDL.

As detailed in comments we provided on October 13, 2016, our primary concerns involve the impairment assessment used to determine that the water column is currently impaired for copper. We request that the Regional Board convene workshop(s), as it committed to do in October 2016, for the purpose of reviewing available data and identifying data that should be collected to characterize the current condition of the Bay. Those workshops should also be used to evaluate the effectiveness of management actions, including regulations requiring significant reductions in the amount of copper in brake pads (which became effective on January 1, 2017 and will involve phased implementation) and the conversion to copper anti-fouling paints with lower leach rates (requiring a reduction from leach rates as high as 29 $\mu g/cm^2/yr$ to a leach rate of 9.5 $\mu g/cm^2/yr$ or less), as required by the State Department of Pesticide Regulation in regulations adopted this year.

Because it is not clear that the Bay is current impaired with respect to copper, we continue to believe the appropriate course of action is to revisit the impairment assessment and conduct targeted data collection as needed to evaluate the extent of any problem, and then to determine appropriate regulatory endpoints and actions. Consistent with our commitment in our October 2016 comments, we are willing to participate in a stakeholder program or working group to characterize current conditions and develop appropriate regulatory endpoints and implementation actions in lieu of adopting the Regional Board TMDL for copper. We are also willing to work with other stakeholders to develop and implement a boater education and hull cleaning training program.

Technical comments are detailed in the memorandum prepared by Susan C. Paulsen, Ph.D., P.E., of Exponent. Legal comments are included in the memorandum prepared by Keith Garner and Jim Rusk of Sheppard Mullin. Both are attached to this letter.

We look forward to continuing to work with the Santa Ana Regional Board members and staff.

Sincerely,

Dean S. Kirk

Dean S. Kirk
Vice President
Environmental Affairs

Enclosure

cc: Hope Smythe, Executive Officer
William Ruh, Chair
Linda I. Ackerman, Vice Chair
Tom M. Rivera, Board Member
William von Blasingame, Board Member
Lana Ong Peterson, Board Member
Daniel Selmi, Board Member
Garry Brown, Orange County Coastkeeper
Amanda Carr, County of Orange
Dave Webb, City of Newport Beach
John Kappeler, City of Newport Beach
Balt Mejia, City of Costa Mesa
Chris Macon, City of Laguna Woods
Thomas Wheeler, City of Lake Forest
Doug Stack, City of Tustin
Mike Carney, City of Orange
Thomas Lo, City of Irvine
Tyrone Chesanek, City of Santa Ana
Craig Foster, City of Santa Ana
Fiona Sanchez, Irvine Ranch Water District

Exponent®

EXTERNAL MEMORANDUM

TO:	Dean S. Kirk, V.P. Environmental Affairs, Irvine Company
FROM:	Susan C. Paulsen, Ph.D., P.E.
DATE:	August 23, 2018
PROJECT:	1404944.000
SUBJECT:	Technical comments on July 9, 2018 Supplemental Staff Report and Basin Plan Amendments for Copper TMDLs and Non-TMDL Metals Action Plans for Zinc, Mercury, Arsenic and Chromium in Newport Bay, California

This memorandum summarizes our technical comments on the Santa Ana Regional Water Quality Control Board's (Regional Board's) proposed basin plan amendment (BPA) to adopt a total maximum daily load (TMDL) for copper in Upper and Lower Newport Bay[1] and the Supplemental Staff Report (SSR) for the TMDL.[2]

Both the SSR and the BPA have been amended to include changes in response to comments provided by stakeholders, including re-evaluating the sediments for impairment, modifying sediment targets to use Sediment Quality Objectives (SQOs)[3], and modifying (in part) the calculations of copper leach rates from boats.

However, additional comments have not been addressed. First, the water column impairment assessment in the SSR and BPA continues to use data collected prior to 2014 and has not been updated to include newer data. Stakeholders provided data and information in 2016 that appeared to indicate that the CTR criteria used as TMDL targets were overly protective, as even when CTR criteria were exceeded, toxicity was not observed. Stakeholders therefore requested that additional data be collected both to characterize the current condition and to evaluate whether toxicity was occurring within the Bay. Although the Regional Board committed to workshops or meetings to discuss these data and develop a path forward, those meetings have not occurred.

[1] Attachment A to Resolution No. R8-2018-0071. Amendments to the Water Quality Control Plan – Santa Ana Region to incorporate the Newport Bay Copper (Cu) TMDLs, and Non-TMDL Action Plans for Zinc (Zn), Mercury (Hg), Arsenic (As) and Chromium (Cr).

[2] RWQCB 2018. Supplemental Staff Report – Basin Plan Amendments for Copper TMDLs and Non-TMDL Metals Action Plans for Zinc, Mercury, Arsenic and Chromium in Newport Bay, California. Santa Ana Regional Water Quality Control Board. July 9.

[3] Water Quality Control Plan for Enclosed Bays and Estuaries – Part 1 Sediment Quality, SWRCB 2009 (EBE Plan-Part 1).

Second, although the Regional Board modified its impairment assessment for sediments and concluded that sediment is not impaired, the SSR and BPA continue to include TMDL targets for sediment. Because sediment is not impaired, the TMDL should be modified to eliminate TMDL targets and implementation tasks for sediment from both the Copper TMDL and the Non-TMDL Action Plans. If the Regional Board wishes to retain these tasks, it should replace the sediment-related provisions in the Copper TMDL with a Non-TMDL Action Plan for copper in sediment. Of note, sampling efforts to evaluate sediment quality using the requirements of the State's SQO Policy are already in progress, and additional efforts are planned.

Third, the Regional Board does not appear to have considered requirements imposed since 2016 for boat owners and operators to move to lower leach rate anti-fouling paints (AFPs), which are expected to result in lower copper concentrations in Bay waters over time. The Regional Board similarly does not appear to have considered how obstacles to the greater use of non-copper bottom paints can be addressed, including TMDL requirements that non-copper AFPs "may be considered only if no significant adverse environmental impacts associated with their use is demonstrated."

Finally, as detailed in Comment 6 (below), the existing USEPA TMDL for Newport Bay includes waste load and load allocations for copper that are derived from (and equivalent to) CTR criteria for copper. Although the USEPA TMDL does not include an implementation plan, the Regional Board could adopt an implementation plan for the USEPA TMDL rather than adopting an entirely new TMDL.

Additional detailed technical comments are provided below.

1. **Regional Board staff have made several appropriate changes to the Supplemental Staff Report and proposed Basin Plan Amendment.**

    a. Regional Board staff have amended the TMDL to discontinue the use of sediment quality guidelines (e.g., "effects range medium" or ERM and "effects range low" or ERL) as TMDL targets. Regional Board staff have acknowledged that the Sediment Quality Objectives (SQOs) adopted by the State Water Resources Control Board are the appropriate targets for sediments (BPA at p. 3). See also Comment 4 below.

    b. Regional Board staff have concluded within the Supplemental Staff Report that sediments are not impaired for copper. See also Comment 2 below.

    c. The calculations in the Supplemental Staff Report and BPA have been amended to more accurately reflect the number of boats present in Newport Bay.

2. Because the sediments are not impaired for copper, TMDLs should not be developed for sediments as part of the copper TMDL.

The Supplemental Staff report indicates both that "it is premature to make a finding of sediment impairment at this time" (p. 9) and, with respect to copper, "Sediments are no longer considered to be impaired based on State Board's current interpretation of the State Listing Policy" (p. 18).

As described in our October 13, 2016 comments, the State's SQO Policy requires that sediment quality be evaluated using three lines of evidence (LOEs)—chemistry, toxicity, and benthic community health. The sediment chemistry LOE requires that the concentration of multiple pollutants be assessed, including copper, lead, mercury, zinc, polycyclic aromatic hydrocarbons (PAHs), chlordane, DDT (including total DDTs, DDEs, and DDDs), total PCBs, cadmium, dieldrin, and trans nonachlor. Concentrations of these pollutants are then integrated into a combined score, which is used, together with the toxicity and benthic community LOEs, to determine sediment quality at a station. Once SQOs have been determined to be exceeded, the SQO Policy requires that stressor identification evaluations be performed to determine if a pollutant, and which pollutant(s), are responsible for failure to meet SQOs.

Efforts are underway (Bight '18)[4] and planned (pursuant to the 13267 Investigative Order issued on July 11, 2018) to evaluate sediment quality within Upper and Lower Newport Bay. It is expected that the condition of sediments within Newport Bay will be evaluated through this process, and, if an impairment is found, that stressor identification studies will be required to determine the pollutant(s) responsible for the impairment. Thus, at this time it is premature to conclude either that the sediments are impaired or that copper is a pollutant responsible for the impairment.

Because the Regional Board has determined that the sediments are not impaired for copper, it is inappropriate to regulate sediment quality within the Copper TMDL, and the Regional Board should eliminate TMDL targets for sediment within the Copper TMDL. Similarly, the Regional Board should also eliminate the numeric targets for sediment for zinc, mercury, arsenic, and chromium in the Non-TMDL Action Plans. [In the alternative, if the Regional Board wishes to continue to include sediment targets in the BPA, the sediment targets (SQOs) for copper should be eliminated from the Copper TMDL and included only within the Non-TMDL Action Plans.]

3. The Supplemental Staff Report does not address many of the comments raised in 2016.

The SSR provides a generalized response to comments and does not provide specific responses to individual comments. While the SSR generally addresses some of the concerns raised by

[4] Southern California Coastal Water Research Project (SCCWRP). 2018. Southern California Bight 2018 Regional Monitoring Program.

stakeholders, many comments have remained unaddressed. Attachment A provides a summary of the comments submitted by Exponent on October 13, 2016, together with a summary of the Regional Board's response to those comments.

Of greatest importance, the SSR and proposed BPA have not been amended to consider new data, or to evaluate whether the CTR criteria used as TMDL targets are overly protective and thus not reliable indicators of impairment within Newport Bay. See also Comment 6 below.

In addition, Exponent's 2016 comments recommended that the leach rates from copper anti-fouling paints (AFPs) be adjusted to use the average (not maximum) leach rate and to consider the reformulation of copper AFPs. Using an average AFP leach rate would result in a more realistic estimate of the contribution of boats to copper loads in the Bay and would also indicate that we are much closer to attaining CTR criteria than indicated by the calculations in the SSR and BPA. See detail in Exponent's October 13, 2016 comment letter and in Attachment A.

4. **Sediment quality guidelines such as ERLs and ERMs should not be used within the TMDL or Non-TMDL Action Plans.**

The Supplemental Staff Report (p. 2) and draft Basin Plan Amendment (p. 3) require that "sediment Cu must be evaluated against the ERM/ERL guidelines for trend and antidegradation analyses." However, as described in the Basin Plan Amendment (p. 3), the three LOEs of the State's SQO Policy are the appropriate approach to determining sediment quality and compliance with SQOs, and the BPA replaces ERMs/ERLs with SQOs. In addition, as detailed in Exponent's October 13, 2016 comments (p. 3), ERMs/ERLs were not intended to be used as regulatory endpoints and cannot reliably be used to indicate impairment in sediments. This is true for both copper and the pollutants that are regulated by the Non-TMDL Action Plans.

Because both trends over time and anti-degradation requirements can be evaluated without using ERLs and ERMs, ERLs and ERMs should be deleted from the Copper TMDL and Non-TMDL Action Plans.

5. **DPR now requires the manufacture of AFPs with lower leach rates, which should be considered by the Regional Board. In addition, the Regional Board should provide guidance regarding the use of non-copper AFPs, as the requirements of the TMDL pose an obstacle to their use.**

The California Department of Pesticide Regulation (DPR) finalized a new regulation that establishes copper leach-rate data submission requirements for new and amended copper AFPs (as of January 1, 2018) and that requires all copper AFPs to have a leach rate of 9.5 $\mu g/cm^2/day$ or less (as of July 1, 2018). The benefits of these newer paints will be observed over time, as the existing supply of AFPs is exhausted and as boats are re-painted with newer, low leach-rate

AFPs. The Regional Board should evaluate the likely rate at which the newer AFPs will result in reductions in ambient copper concentrations.

The proposed BPAs also include a requirement that "Non-Cu AFPs (other biocides) may be considered only if no significant adverse environmental impacts associated with their use is [sic] demonstrated" (p. 11). It is unclear who would make this determination, how such a determination would be made, or what information or data would be required to support such a finding. Determinations such as this normally fall under the purview of a government agency, such as the California DPR. Thus, the TMDL appears to impose a significant obstacle (and may effectively prevent) the use of non-copper AFPs. The Regional Board should provide additional clarification regarding how, and by whom, this requirement could be addressed.

6. The USEPA TMDL uses CTR criteria as allocations. The Regional Board could simply adopt an implementation plan for the USEPA TMDL rather than adopting a new TMDL.

The USEPA TMDL adopted in 2002 included concentration-based waste load and load allocations (WLAs and LAs) for copper that were equivalent to the CMC (acute) and CCC (chronic) values from the California Toxics Rule (CTR) (see Table 5.7b on p. 49 of USEPA 2002[5]). The WLAs and LAs for copper in the 2002 USEPA TMDL are identical to those contained in the proposed Copper TMDL developed by the Regional Board.

However, the SSR asserts (at p. 1) that the Regional Board's TMDL should be adopted to replace the existing USEPA Copper TMDL, as the SSR asserts that the USEPA Copper TMDL requires a 92% reduction in the loading from boats, regardless of whether the CTR values have been attained. After reviewing the USEPA TMDL, we have not been able to determine the basis for a required "92% reduction" or for the assertion that additional load reductions will be required even if CTR levels are attained. In addition, the copper loading from boats is a calculated value that cannot be practically or directly measured. Thus, under the USEPA TMDLs, attainment would be determined using the concentration-based WLAs and LAs—i.e., if copper concentrations in the water column are below the CTR values, the water body would be in attainment, regardless of the amount of loading from boats.

Further, as described in Exponent's October 13, 2016 comments, available data indicate that the CTR values are likely overprotective of aquatic life, and thus may not be reliable indicators of impairment in the waters of Newport Bay. USEPA understood that this would be the case in

[5] USEPA 2002. Total Maximum Daily Loads for Toxic Pollutants in San Diego Creek and Newport Bay, California. Established June 14, 2002.

many water bodies, and the CTR as promulgated by USEPA allows for adjustments to be made using Water Effects Ratio (WER) studies.[6]

Because the USEPA TMDL expresses allocations for copper in the same manner as the Regional Board's proposed Copper TMDL, and because sediments are not impaired for copper (see Comment 2 above), it appears that the Regional Board could simply adopt an implementation plan for the USEPA TMDL rather than adopt a new TMDL. At a minimum, it appears that further data evaluation and discussion between the stakeholders, the Regional Board, and the environmental community is warranted before a new TMDL is adopted for copper in Newport Bay.

[6] See California Toxics Rule, Fed. Reg. Vol. 65, No. 97, at p. 31691: "The WER is a more comprehensive mechanism for addressing bioavailability issues than simply expressing the criteria in terms of dissolved metal. Consequently, expressing the criteria in terms of dissolved metal, as done in today's rule for California, does not completely eliminate the utility of the WER. This is particularly true for copper, a metal that forms reduced-toxicity complexes with dissolved organic matter." See also footnote 20 on p. 12 of Exponent's October 13, 2016 technical comments.

Attachment A – Regional Board's response to Exponent's October 13, 2016 comments

Location (Exponent comments, Oct 13, 2016)	Comment	Regional Board's Response in Supplemental Staff Report (SSR) and proposed Basin Plan Amendment (BPA)	Addressed
Comment 1, page 3	The sediment thresholds used in the impairment assessment as TMDL targets are not appropriate.	The Regional Board has used SQOs as sediment targets in the Copper TMDL and Non-TMDL Action Plans. Although Sediment Quality Guidelines (ERLs and ERMs) are no longer used as targets, they are retained for use in trend and antidegradation analyses.	In part. The SSR and BPA use SQOs as sediment targets and conclude sediments are not impaired. However, ERLs and ERMs continue to be used in the BPA. See Exponent's 2018 Comment 4.
Comment 2, page 4	Data used for impairment assessment are not representative of current conditions in the Bay. The impairment assessment does not present the data used to evaluate impairment. Significant improvement has occurred over time.	The SSR re-evaluates sediment impairment and concludes that the sediments are not impaired. The SSR did not update data used to evaluate water column impairment, stating that current data "will be evaluated in future refinements to the proposed TMDLs, if adopted." The Regional Board notes that the City of Newport Beach's data support the finding of impairment in the water column, but do not add these data to the impairment dataset.	Addressed for sediments but not for water column impairment evaluations. Data from 2014-2018 should be added to the dataset used to evaluate impairment prior to the adoption of the Copper TMDLs. Neither the SSR nor the BPA present the actual data used to evaluate water column impairments.
Comment 3, page 6	Management actions have resulted in marked improvement within the Bay, and conditions will continue to improve in the future; these activities must be considered when assessing impairment.	The SSR discusses DPR's change in leach rates and DPR's general findings that BMPs will be necessary and that some conversion of boat paints will be needed for marinas with more than 1270 boats.	No. The analysis in the SSR does not evaluate expected changes in copper concentrations in Newport Bay over time, is not quantitative, and relies on DPR's general statements about the use of BMPs and the need for boat paint conversions. The SSR does not consider flushing or other site-specific factors

Location (Exponent comments, Oct 13, 2016)	Comment	Regional Board's Response in Supplemental Staff Report (SSR) and proposed Basin Plan Amendment (BPA)	Addressed
			within Newport Bay. The SSR also does not address copper reductions that are expected to occur as a result of brake pad conversions, and does not address observed reductions in toxicity over time.
Comment 4a, page 8	A TMDL and implementation actions for biota are not needed. This comment agreed with Regional Board conclusions.	No response needed.	Yes.
Comment 4b, page 8	Sediment is not impaired by copper, and a TMDL for copper in sediments is not needed.	The SSR concludes that sediments are not impaired, moves from ERLs/ERMs to SQOs for TMDL targets, and uses ERLs/ERMs for trend and antidegradation analysis.	In part. The SSR agrees that sediments are not impaired but continues to develop TMDL targets for sediment (in the form of SQOs) and continues to use ERLs/ERMs for trend and antidegradation analyses.
Comment 4c, page 11	Copper concentrations in the water column do not appear to cause toxicity, and further study is warranted instead of a TMDL. Available data appear to indicate that toxicity is not present in water samples that exceed CTR criteria.	The SSR and BPA do not discuss data indicating that the CTR criteria are over-protective. The BPA does allow for a water effects ratio (WER) study to be conducted in the future to evaluate the CTR criteria.	No. Although the BPA allows a WER study to be conducted, it would be appropriate to determine impairment and whether CTR criteria are over-protective before adopting a TMDL for copper.
Comment 5, page 13	The Regional Board's calculations of copper loading to the Bay due to leaching from	The SSR and BPA adjusted calculations by reducing the number of boats in the Bay. The copper leach rate was not adjusted.	In part. Although the number of boats was adjusted, the leach rate used in the calculations was not adjusted.

Location (Exponent comments, Oct 13, 2016)	Comment	Regional Board's Response in Supplemental Staff Report (SSR) and proposed Basin Plan Amendment (BPA)	Addressed
	boat paints need to be redone. Both the number of boats and the leach rates used in calculations are too high; average (not maximum) leach rates should be used.		
Comment 6, page 14	The need for a TMDL has not been demonstrated, and the proposed implementation measures do not appear to be necessary.	The SSR and BPA conclude that the Bay is impaired and a TMDL is required.	See Exponent's 2018 comments.
Comment 7, p. 15	Further actions are recommended instead of adoption of the proposed TMDL. Water column toxicity tests dissolved copper concentrations should be collected over 3-5 yrs to characterize current conditions and determine if a WER study is needed.	The SSR and BPA conclude that the Bay is impaired and a TMDL is required.	See Exponent's 2018 comments.

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E X T E R N A L M E M O R A N D U M

To: Dean Kirk
V.P. Environmental Affairs
Irvine Company

Date: August 24, 2018

From: S. Keith Garner
James F. Rusk

File Number: 0TCJ-240837

Re: Comments on Basin Plan Amendments for Copper TMDLs in Newport Bay, California

I. INTRODUCTION AND SUMMARY

This memorandum provides the results of our review of the Santa Ana Regional Water Quality Control Board's (Regional Board) revised proposed total maximum daily loads (TMDL) for copper in Upper and Lower Newport Bay.[1] Our comments focus on the legal adequacy of the proposed TMDL, including the implementation plan for copper.

In summary, the TMDL suffers from the following legal defects:

- The available data do not demonstrate that Newport Bay is impaired for copper, and thus adopting a new TMDL is not appropriate. Before considering adoption of a new copper TMDL for Newport Bay, the Regional Board should conduct further study, in collaboration with stakeholders, to determine whether impairment exists.
- The TMDL does not include a peer review, as required by California law. If the Regional Board believes that a new TMDL is required, it should first direct staff to obtain a peer review of the proposed TMDL.
- Despite concluding that sediment is not impaired for copper, the TMDL inappropriately establishes numeric targets and implementation tasks for sediment. Those elements should be removed from the TMDL. If the Regional Board feels it necessary to address sediment in the proposed Basin Plan Amendment, it should do so through a non-TMDL action plan.
- The TMDL unlawfully attempts to place responsibility for discharges from boats on non-dischargers, including marina owners and operators, the City of Newport Beach (City), and the County of Orange (County). The Regional Board should consider

[1] Attachment A to Resolution No. R8-2018-0071. Amendments to the Water Quality Control Plan – Santa Ana Region to incorporate the Newport Bay Copper (Cu) TMDLs, and Non-TMDL Action Plans for Zinc (Zn), Mercury (Hg), Arsenic (As) and Chromium (Cr).

implementation strategies identified by staff that focus on the parties responsible for boat discharges.

Our detailed comments are provided below.

II. COMMENTS

A. Adoption of a new TMDL is not warranted at this time.

As explained in the technical comments submitted by Irvine Company and other stakeholders, the best available scientific information does not support a finding that water in Newport Bay is impaired for copper at this time.[2] Absent a scientific basis for an impairment finding, there is no legal basis to adopt a new TMDL. The Regional Board should, instead, direct staff to engage in further study and evaluation to determine whether any impairment exists and, if so, to evaluate the causes and appropriate numeric limits.

1. Available evidence does not support a finding of impairment.

The TMDL states that water in Upper and Lower Newport Bay is impaired for copper, and thus TMDLs for copper are required, based on exceedances of the dissolved copper saltwater criteria found in the California Toxics Rule (CTR).[3] However, the proposed TMDL continues to rely on a water column impairment assessment that uses data collected prior to 2014 and has not been updated to include newer data. More recent data, including information submitted by stakeholders in 2016 and information collected by the Regional Board in 2014, show that toxicity was not observed in Newport Bay even when CTR criteria were exceeded.[4] As Exponent has explained in technical comments submitted on behalf of Irvine Company, these data suggest that the CTR criteria used as TMDL targets in the existing copper TMDL for Newport Bay, which the U.S. Environmental Protection Agency (EPA) adopted in 2002, were overly protective, and that exceedances of the criteria do not necessarily indicate that water in Newport Bay should be considered impaired for copper.[5, 6]

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[2] Only the status of water in Newport Bay is at issue, as the current proposed TMDL acknowledges that available data do not support a finding of impairment for sediment at this time. TMDL, at 2. *See also* Part II.C, *infra*.

[3] TMDL, at 2.

[4] *Metals Sediment Study in Lower Newport Bay [Post-dredging]*, Coastkeeper and Candelaria 2014, available at http://www.waterboards.ca.gov/santaana/water_issues/programs/tmdl/docs/sd_crk_nb_toxics_tmdl/14-03-31-LNB_Sediment_Final_Report.pdf.

[5] Paulsen, S., *Technical comments on July 9, 2018 Supplemental Staff Report and Basin Plan Amendments for Copper TMDLs and Non-TMDL Metals Action Plans for Zinc, Mercury, Arsenic and Chromium in Newport Bay, California* (August 24, 2018), at 3-4, 6. Exponent's technical comments are submitted with these legal comments and are incorporated herein by reference.

[6] Indeed, the CTR criteria explicitly recognize that they may be conservative, and that higher concentrations of dissolved copper in environmental samples may not result in toxicity. The CTR criteria provide for a study called a "water effect ratio" (WER) that can be conducted to adjust the CTR criteria to more appropriate levels (EPA 2000, *Water Quality Standards; Establishment of Numeric Criteria for Priority Toxic Pollutants for the State of California*; Rule

The Supplemental Staff Report prepared for the revised TMDL states that the newer data "will be evaluated in future refinements to the proposed TMDLs, if adopted."[7] But this crucial evaluation should occur before a new TMDL is adopted, not after. Additional time and studies are needed to determine the concentrations of copper in the water column in Newport Bay and whether these concentrations lead to direct toxicity to aquatic organisms. Water samples should be analyzed for both dissolved copper concentrations and toxicity at randomly-selected sites throughout the Bay to determine if toxicity is present, and if so, the concentration of dissolved copper that results in measurable toxicity. Concentrations of copper over time should also be established in multiple waterbodies throughout the Bay in order to determine temporal trends and the impact of recent activities in the Bay (*e.g.*, sediment dredging) on those concentrations. Due to a lack of sufficient and current data, it is premature to conclude that copper concentrations in the water column of the Bay cause toxicity or impair beneficial uses.

2. Adoption of a new TMDL is not legally justified.

The Regional Board adopts TMDLs under the authority of the federal Clean Water Act (CWA).[8] Under the CWA, states may adopt TMDLs only for water body segments listed as impaired, based on a finding that existing effluent limitations and pollution controls are not sufficient to achieve compliance with applicable water quality standards.[9] Because the available evidence does not adequately support the impairment finding in the proposed TMDL, the legal foundation to adopt a new TMDL is lacking. Instead of adopting a new TMDL at this time, the Regional Board should direct staff to consider additional studies to evaluate copper concentrations and the potential for toxicity in Newport Bay, as described above. In doing so, the Regional Board should fulfill the commitments made during its October 2016 meeting to conduct workshops, shareholder meetings, and other outreach and public engagement tasks before considering a TMDL for adoption.

B. California law requires the Regional Board to obtain a peer review of the proposed TMDL.

California law requires that, when a state or regional board adopts regulations that rely upon a scientific basis, such as a TMDL calculation, the scientific basis must be subjected to external peer review. Regional Board staff have not obtained a peer review of the basis for the proposed TMDL. If the Regional Board decides to consider adopting the TMDL, despite the recommendation for further study provided above, the Board must first direct staff to subject the TMDL to peer review.

California Health and Safety Code Section 57004(b) prevents the California Environmental Protection Agency (CalEPA) or any department, board, or office within the

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[40 CFR Part 131]). WER studies have been conducted in other Southern California water bodies, and the default CTR criteria have been found to be unnecessarily low (LWA 2008, *Final Report- Los Angeles River Copper Water-Effect Ratio Study*, Prepared by Larry Walker Associates by the City of Los Angeles, June 3, 2008).

[7] RWQCB 2018. Supplemental Staff Report – Basin Plan Amendments for Copper TMDLs and Non-TMDL Metals Action Plans for Zinc, Mercury, Arsenic and Chromium in Newport Bay, California, at 7 (Supplemental Staff Report).

[8] 33 U.S.C. § 1313(d)(1).

[9] *Id.;* 40 C.F.R. § 130.7(c)(1).

CalEPA (which includes the State Board and Regional Boards), from taking any action to adopt the final version of a rule unless (i) the scientific portions of the proposed rule and its supporting data are submitted to an external peer review entity for its evaluation; (ii) the peer review entity prepares a written report that evaluates the scientific basis of the proposed rule; and (iii) the reviewer concludes that the scientific portion of the proposed rule is based upon "sound scientific knowledge, methods and practices," or, if the reviewer finds otherwise, the agency explains why it nonetheless has determined that the rule is based upon sound scientific knowledge, methods and practices.[10] For any rule proposed by a regional board, the board also must post a copy of the external scientific peer review report on the Board's website.[11]

Regional Board staff did not obtain a peer review of the proposed TMDL, and instead seek to rely on the peer review conducted for the Toxics TMDL that EPA adopted for Newport Bay in 2002.[12] The Supplemental Staff Report states in part, "Peer review is not required if a new application of an adequately peer-reviewed product does not depart significantly from its scientific approach. The recommended Cu TMDLs used the same scientific approach and peer-reviewed models used by USEPA in their Toxics TMDLs (2002), that include Cu and other Metals TMDLs. … Therefore, additional scientific peer review of the proposed Cu TMDLs is neither necessary nor required."[13]

This is incorrect for two reasons. First, EPA did not conduct a peer review of its Toxics TMDL. In response to comment on the 2002 TMDL, EPA stated that "…these TMDLs have not been subjected to a formal peer review."[14] Second, even if EPA had conducted a peer review, it would be improper to rely on it. Such a peer review would not have included the data and information collected subsequent to 2002. The law is clear: before adopting the TMDL, the Regional Board must ensure that "the scientific portions of the proposed rule *and its supporting data*" undergo peer review.[15]

C. The Regional Board should remove numeric limits and implementation tasks for sediment from the TMDL.

Regional Board staff reconsidered its impairment analysis for sediment in Newport Bay in light of the information and comments provided by stakeholders in 2016, and determined in the current draft TMDL and Supplemental Staff Report that sediment in Newport Bay is not impaired for copper. However, the TMDL still contains numeric targets for copper in sediment and implementation tasks for sediment, including monitoring and evaluation. In light of the Regional Board's determination that sediment is not impaired for copper, numeric targets and

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[10] Cal. Health & Safety Code § 57004(d).

[11] *Id.* at § 57004(g).

[12] Newport Bay and San Diego Creek TMDLs for Toxic Pollutants (EPA 2002).

[13] Supplemental Staff Report, at 11 (underlining in original). The 2016 Staff Report also states that certain unidentified sections of the report were "reviewed along the way by experts in various fields" (Staff Report, at 130), but such informal review clearly falls short of the process required under Health and Safety Code Section 57004.

[14] EPA, Responsive Summary – Newport Bay and San Diego Creek TMDLs for Toxic Pollutants (*available at* https://www3.epa.gov/region9/water/tmdl/nbay/tsdi0602.pdf), at 8 (Comment L.14).

[15] Cal. Health & Safety Code § 57004(d) (italics added).

implementation tasks for sediment are not appropriate and should be removed from the TMDL, in the event the Regional Board decides to consider adoption of the TMDL.

As stated in Part II.A. of these comments, the Regional Board adopts TMDLs for impaired water bodies under the authority of the CWA.[16] Under the CWA, TMDLs are required only when existing effluent limitations are not sufficient to achieve compliance with applicable water quality standards, resulting in impairment.[17] Because the Regional Board has concluded that sediment is not impaired for copper, there is no authority under the CWA to establish TMDLs for sediment.[18]

Moreover, including numeric limits and implementation tasks for sediment in the TMDL is unnecessary and serves no purpose. The numeric limits for sediment in the proposed TMDL are based on the sediment quality objectives (SQOs) that the State Board adopted in 2009 as part of the Water Quality Control Plan for Enclosed Bays and Estuaries – Part 1, Sediment Quality (EBE Plan).[19] These objectives are already in effect, apply to Upper and Lower Newport Bay, and must be implemented through regulatory actions, when applicable.[20] But a TMDL is not an appropriate way to implement the SQOs when no impairment exists.

Likewise, the EBE Plan already provides for routine monitoring to evaluate compliance with the SQO assessment metrics. Where sediments fail to meet the SQOs, the EBE Plan calls for stressor identification to determine what pollutant(s) are responsible and to identify the source(s) of those pollutants.[21] Efforts to ensure compliance with SQOs in Newport Bay are already underway — for instance, the Regional Board has issued an investigative order requiring assessment of SQO compliance in the Bay. But, again, the TMDL is not an appropriate way to implement these tasks with respect to sediment where no impairment has been shown and the stressor, if any, is unknown.[22]

The Regional Board's proposed numeric limits for copper in sediment, and the targeted monitoring for copper concentrations in sediments and sediment toxicity, should be removed from the TMDL. Monitoring should be conducted only in accordance with the SQO Policy and existing investigative orders. Alternatively, the Regional Board may consider implementing these measures through non-TMDL action plans, as it has proposed to do for other metals where impairment has not been shown.

D. The Regional Board cannot hold marina owners and operators liable for discharges of copper from boats.

The TMDL identifies copper-based antifouling paints (AFPs) used on boats as the largest source of copper to Newport Bay, and states that achieving compliance with the TMDL and numeric targets for copper will not be possible without reducing discharges from boats. The

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[16] 33 U.S.C. § 1313(d)(1).

[17] *Id.*

[18] *See id.*

[19] TMDL, at 3.

[20] EBE Plan, at 13-19.

[21] EBE Plan, at 17-19.

[22] *See* TMDL, Implementation Plan, § 2.

TMDL Implementation Plan requires a 20% reduction of copper discharges from AFPs within four years after USEPA approval of the TMDL, a 40% reduction within eight years, and a 60% reduction within 12 years. The TMDL further describes marina owners/operators as "dischargers" and "responsible parties" with respect to copper discharges from AFPs on boats. The TMDL Implementation Plan tasks marina owners and operators, the City and the County (in addition to boat owners, hull cleaners and boatyard owners/operators) with preparing and implementing an implementation plan and schedule to achieve the required load reductions from boats.[23]

The Implementation Plan rests on an overbroad view of the Regional Board's legal authority, which is outlined in the Staff Report prepared in 2016 for the original draft TMDL.[24] Contrary to the assertions made in the Staff Report, the Regional Board lacks the authority to hold marina owners and operators responsible for discharges from boats or to require marinas to reduce such discharges. Any attempt by the Regional Board to make marina owners and operators liable for boat discharges, whether through the TMDL or any subsequent NPDES permit, waste discharge requirements (WDRs) or cleanup and abatement order (CAO), would be invalid and subject to legal challenge.

1. The Regional Board cannot regulate discharges from boats under the CWA.

As the Regional Board has acknowledged, discharges of copper from most boats in Newport Bay are not subject to regulation through the CWA's National Pollutant Discharge Elimination System (NPDES). The CWA prohibits the discharge of any pollutant, from a point source to a water of the United States, without a permit.[25] While the definition of a point source is broad, the CWA contains a provision added by the federal Clean Boating Act of 2008, which explicitly states that no CWA permit is required for any discharge incidental to the normal operation of a recreational vessel, including those from anti-fouling agents.[26] These discharges are regulated, instead, under performance standards to be promulgated by the EPA.[27]

Commercial vessels that are not exempt from NPDES permitting are generally regulated under two general NPDES permits issued by EPA: the Vessel General Permit and the small Vessel General Permit. These permits address the use of copper-based and other AFPs. The Staff Report thus acknowledges that EPA and the U.S. Coast Guard (which has enforcement authority under the Clean Boating Act) are the agencies with authority to regulate copper discharges from boats under federal law.[28] The Staff Report also acknowledges that the EPA and the California Department of Pesticide Regulation (DPR) are the agencies with authority,

[23] TMDL, Implementation Plan §1.

[24] Staff Report – Basin Plan Amendments for Copper TMDLs and Non-TMDL Metals Action Plans for Zinc, Mercury, Arsenic and Chromium in Newport Bay, California, August 30, 2016 (Staff Report).

[25] 33 U.S.C. § 1311(a).

[26] 33 U.S.C. § 1342(r).

[27] *See* 33 U.S.C. §1322(o).

[28] *See* Staff Report, at 75-76.

under federal and state law, respectively, to regulate the sale and use of pesticides, including copper AFPs.[29]

Because the CWA does not authorize the Regional Board to regulate discharges of copper from boats, the Staff Report appropriately concludes that the Regional Board's authority to regulate such discharges is found exclusively in the California Water Code.[30]

2. California law does not authorize the Regional Board to hold marinas liable for discharges from boats.

The Staff Report states that residual copper discharged from boat AFPs is a waste subject to regulation by the Regional Board under the California Water Code. The Staff Report identifies several regulatory options for the Regional Board to consider to address impairment caused by copper discharges from AFPs, including issuing individual or general WDRs, issuing a conditional waiver of WDRs, adopting a prohibition on discharge of residual copper from AFPs, and issuing CAOs to dischargers. The Staff Report further states that the Regional Board has the authority to issue WDRs or CAOs to marina owners and operators, among other parties, or to require them to enroll under conditional waivers of WDRs.[31]

Stakeholders have questioned whether the Regional Board's authority to regulate discharges associated with copper-based AFPs is preempted or limited by federal and/or state law authorizing EPA and DPR to regulate the use of AFPs.[32] Those questions aside, we express no opinion on the most appropriate way for the Regional Board to exercise whatever authority it has under state law. We strongly disagree, however, with the claims in the Staff Report that the Regional Board may hold marina owners and operators liable for discharges from AFPs on boats and that it can require marinas to take action to reduce those discharges.

The Staff Report states that the Regional Board "has the discretion to hold Newport Bay marina owners/operators accountable for discharges of waste that occur or occurred within the marina leasehold … based on their status as owners or operators of the marina facility in which an activity occurs that results or resulted in a discharge of waste, and the marina owner/operators' ability to control the activity." According to the Staff Report, this makes marina

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[29] Staff Report, at 71-72. DPR has recently finalized regulations that impose a maximum allowable copper leach rate of 9.5 µg/cm2/day on all copper-based AFP and coating product registrations. 3 CCR § 6190.

[30] *See* Staff Report, at 77. We note, however, that to the extent discharges from boats may be subject to NPDES permit requirements, the CWA and its implementing regulations unambiguously place sole responsibility for compliance on the "person who discharges or proposes to discharge pollutants" (40 C.F.R. 122.21(a)(1)) — in this case, the boat owners, operators, or (potentially) hull cleaners responsible for any discharge of copper from AFPs on boats.

[31] Staff Report, at 78-80. The Staff Report recommends that the Regional Board issue a conditional waiver of WDRs for boat discharges.

[32] Letter from Dave Kiff, City Manager, City of Newport Beach, to Dr. Linda Candelaria, PhD, Re Regional board Meeting – October 28, 2016, Basin Plan Amendments to Incorporate Total Maximum Daily Loads ("TMDLs) for Copper and Non-TMDL Action Plans for other Metals in Newport Bay (October 14, 2016), Attachment 7, at 2-5.

owners and operators "responsible parties" for purposes of the TMDL.[33] The Staff Report makes a similar claim regarding the City and the County.[34] The Staff Report offers little explanation for this claim — particularly as to marina owners and operators — other than to cite to a series of State Board orders and a memorandum by the State Board's Office of Chief Counsel, purporting to establish "landowner liability" under WDRs and enforcement orders.[35] As explained below, staff's interpretation of the Regional Board's authority is incorrect, and the Regional Board does not have discretion to treat marina owners and operators as dischargers or responsible parties for the purpose of WDRs, conditional waivers, enforcement orders or CAOs.

a. The Water Code does not authorize regulation of marinas.

The California Water Code only authorizes the regulation of individual persons or entities that actually discharge, or plan to discharge, wastes into water bodies. Water Code Section 13260 requires "person[s] discharging waste, or proposing to discharge waste" to file a waste discharge report with a regional board.[36] Thereafter, if the regional board decides to issue WDRs, it must provide notice of the WDRs to "the person making or proposing the discharge."[37] This language is unambiguous: only the "person[s] discharging waste" are subject to the regional boards' authority. Nothing in the Water Code authorizes the regional boards to impose regulation or liability on non-dischargers.

Marina owners and operators do not discharge waste into Newport Bay by virtue of their ownership and operation of marina facilities, nor do they propose to discharge waste. Waste from AFPs is discharged, if at all, by boat owners and operators who make the decision to use copper-based AFPs or to have their boat hulls cleaned in a manner that releases copper. Marina owners and operators do not conduct, require or permit hull cleaning or the use of copper-based AFPs. Thus, it is inappropriate and unlawful to treat them as dischargers for purposes of WDRs, conditional waivers, CAOs or other regulatory actions.

b. State Board WQ Orders do not provide authority.

The Staff Report cites to a series of State Board orders, including Order No. WQ 90-03, as establishing "the issue of landowner liability under both [WDRs] and enforcement orders."[38] Staff's reliance on these orders is misplaced, because they provide no such authority and rest on an erroneous interpretation of the law. Even if these sources could be construed as establishing landowner liability, they would not authorize imposition of liability on marina owners and operators. As noted in the Staff Report, marinas are located on tidelands and/or submerged lands that are generally held and administered by the State of California for the

[33] Staff Report, at 86.

[34] Staff Report, at 85-86.

[35] Staff Report, at 85 n.7.

[36] Cal. Water Code § 13260(a).

[37] *Id.* § 13263(a).

[38] Staff Report, at 85 n.7.

benefit of the people of the State, and thus marina owners and operators are not landowners with full control over the use of such lands.[39]

Water Quality Order 90-3, cited in the Staff Report, concerned a Regional Board's attempt to name the San Diego Unified Port District as a responsible party in six NPDES permits issued to boatyards and shipyards that were tenants of the Port. The Port appealed the Regional Board's action to the State Board, contending that the Port was a "non-operating" landowner and, therefore should not be subject to the NPDES order requirements. In upholding the Regional Board's action, the State Board concluded that both the CWA and the Water Code were silent as to which parties must be named in a NPDES permit, and on that basis, concluded that the Regional Board had the discretion to name a non-operating landowner in WDRs and NPDES permits.

Order No. 90-3 has not been subjected to judicial review and is based on questionable reasoning. As explained above, both the CWA and the Water Code unambiguously authorize regulation of only those individuals or entities that actually discharge, or plan to discharge, waste to jurisdictional waters. Moreover, the factual situation in Order No. 90-3 is not analogous, because in that case the Regional Board had issued several NPDES permits to the Port District's tenants, which it then amended to name the Port as a responsible party.[40] In the present case, however, the CWA explicitly provides that no NPDES permit is required or authorized for the vast majority of boats in Newport Bay, and the EPA — not the Regional Board — is responsible for issuing NPDES permits for the few vessels subject to CWA permit requirements. In addition, the State Board found in Order No. 90-3 that "the source of the discharge is the land owned by the Port District," and thus it was proper to hold the District liable as a landowner.[41] In this case, the source of the discharge is not land, but boats in Newport Bay, which marina owners and operators neither own nor control.

The other State Board Water Quality orders mentioned in the Staff Report also involve circumstances distinguishable from those that apply to the TMDL, or do not support the position taken in the Staff Report. Order No. WQ 87-5 affirmed the imposition of landowner liability on the U.S. Forest Service for a mining project on federal land for which the Forest Service issued a permit. The State Board found it appropriate to name the Forest Service as a discharger in WDRs issued to the mining company, because the Service conducted environmental review of the project, issued a permit for it, and was "in a good position to control how the mining operation was conducted."[42] The State Board summarized its prior orders regarding landowner liability, including several of the orders cited in the Staff Report, as follows: "[T]he three elements at which we look to determine that a landowner can be held accountable are satisfied in this instance: ownership, knowledge of the activity, and ability to regulate it."[43] Even assuming this to be a correct interpretation of California law, it would not support the imposition of liability on marina owners and operators, who do not generally own the submerged lands on

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[39] Staff Report, at 85. We do not dispute that marina owners and operators may be responsible for discharges from marina facilities, but any such discharges are not at issue here.

[40] Order No. WQ 90-3, at 1.

[41] Order No. WQ 90-3, at 9.

[42] Order No. WQ 87-5, at 3.

[43] *Id.* at 3-4.

which boats are moored, do not regulate the use of AFPs on boats, and are not even in a position to know whether boats have been previously painted with copper-based AFPs.

Order No. WQ 86-16 is not analogous because the entity named as a discharger was not merely a passive landowner, but a successor in interest to a prior landowner that the State Board found had been responsible for the actual discharges of pollutants from a chemical packaging facility that led to contamination of the site requiring cleanup.[44] Order No. WQ 84-6, likewise, involved landowners who the State Board found were directly involved in the actual discharges leading to contamination of their property.[45]

Three of the cited orders did not directly address the question of landowner liability. In Order No. WQ 87-6, the petitioner conceded that it was proper to name the landowner as a discharger in a CAO.[46] In Order No. 86-11, the petitioner likewise did not dispute the landowner's ultimate liability for waste discharged on its property, but only challenged the imposition of responsibility for day-to-day compliance with WDRs.[47] In order No. WQ 86-15, a *lessee* and gas station operator sought to avoid liability for discharges from underground tanks used by the gas station.[48] Thus, the issue of landowner liability was not properly before the State Board in any of these cases. Furthermore, the State Board agreed in order No. 87-6 that the landowner should bear only "secondary liability" for cleanup of the property because it did not "initiate or contribute to the actual discharge of waste."[49] Thus, the order does not support the Regional Board's current position.

Other than citing to previous State Board orders, Order No. WQ 86-18 offered no authority or analysis for its conclusion that imposing landowner liability for groundwater contamination was proper.[50]

Contrary to the view espoused by the State Board in some of the cited Water Quality orders, California law does not authorize the regional boards to hold landowners liable for the independent actions of third parties resulting in discharges of waste. Even if the regional boards could impose landowner liability in such a manner, it would not render marina owners and operators liable for discharges from boats using marina facilities. Thus, staff's reliance on the State Board Water Quality orders is misplaced.

c. Case law concerning CAOs confirms that the Regional Board's interpretation of its authority is overbroad.

Not only does the Staff Report fail to identify any relevant authority for its claim that the Regional Board may hold marina owners and operators liable for boat discharges, but case law involving CAOs refutes staff's position and establishes that staff's interpretation of the Regional Board's authority is overbroad. A California Court of Appeal has held that the Porter-Cologne

[44] Order No. WQ 86-16, at 1, 5-10.

[45] Order No. WQ 84-6, at 2, 6-7.

[46] Order No. WQ 87-6, at 3.

[47] Order No. WQ 86-11, at 2, 4.

[48] Order No. WQ 86-15, at 5-9.

[49] Order No. WQ 87-6, at 3.

[50] Order No. WQ 86-18, at 2.

Act does not impose liability on entities whose involvement in a discharge is "remote and passive," like the alleged involvement of marinas in discharges from AFPs on boats.

Water Code section 13304 authorizes the water boards to issue CAOs requiring any "person who has discharged . . . or who has caused or permitted" waste to be discharged into waters of the state, in violation of any applicable WDRs or other order, to clean up or abate the waste.[51] On its face, this language unambiguously provides that marina owners or operators must have actively "discharged" waste, or "caused or permitted" a discharge of waste, in order to face liability under CAOs. Regional Board staff do not claim that marinas actually discharge waste from AFPs on boats, so any attempt to extend liability to marinas must rely on the "caused or permitted" language.[52] But, under applicable case law, marina owners and operators cannot be construed as having caused or permitted such discharges.

In *City of Modesto Redevelopment Agency v. Superior Court*, 119 Cal.App.4th 28 (2004), the Court of Appeal found that dry cleaning solvent manufacturers and distributors that took affirmative steps to facilitate the discharge of solvents by dry cleaning facility operators into a public sewer system (*e.g.*, instructing a dry cleaning facility to set up equipment to aid in the discharge) may face liability under a CAO issued by a regional board. But manufacturers and distributors that merely sold the solvents without warnings of dangers could not be held liable.[53] The court held that the phrase "cause or permit" in Water Code section 13304 does not allow the water boards to impose liability under CAOs on entities whose involvement in a discharge was merely "remote and passive." Rather, to be liable, an entity must have an "active involvement in activities leading to a discharge."[54]

City of Modesto clearly precludes liability for marina owners and operators based on discharges from AFPs. Marina owners and operators do not have any active involvement in the activities responsible for discharges of copper from AFPs, including the boat owner/operators' application of copper-based AFPs, or the boat owner/operators' cleaning of boat hulls that exposes AFPs to increased leaching rates. Unlike the solvent distributors found liable in *City of Modesto*, marina operators do not instruct boat owners to use copper-based AFPs or facilitate such use. Any involvement of marinas in such discharges is, at most, "remote and passive," in that some portion of the discharges from boat AFPs occurs while the boats are moored at marina facilities.[55] Thus, the Regional Board clearly lacks authority to issue CAOs to marinas for boat discharges. More generally, the court's reasoning in *City of Modesto* — that the Legislature intended the Porter-Cologne Act to mirror the common law principles of nuisance, under which an entity may be held liable only for a nuisance that it played an active role in creating — also reinforces the conclusion that the Regional Board may not hold marinas liable for boat discharges under WDRs or conditional waivers.[56]

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[51] Cal. Water Code § 13304(a).

[52] *See* Staff Report, at 86.

[53] 119 Cal.App.4th at 43.

[54] *Id.* at 44.

[55] *See id.* at 43-44.

[56] *See id.* at 43. *See also* Order No. WQ 90-3, at 8 ("The same analysis applied to cleanup and abatement orders also applies to waste discharge requirements, even though the statutory language is different.").

Because California law clearly does not allow the Regional Board to hold marina owners and operators liable for copper discharges from boat AFPs, the Regional Board should instruct staff to remove marina owners and operators from the list of "dischargers" and "responsible parties" tasked with carrying out the TMDL Implementation Plan for copper, including the reduction of discharges from AFPs and the evaluation of sediments that might be contaminated with copper discharged from boats in the past.[57]

d. Action Plans and/or WDRs may not specify the manner of compliance with TMDLs.

Even assuming, for the sake of argument, that the Regional Board could hold marina owners and operators responsible for discharges of copper from boats, the prescriptive nature of the regulatory actions contemplated in the TMDL Implementation Plan and Staff Report would exceed the Regional Board's authority. The Staff Report states that the Regional Board could regulate marina owners and operators as dischargers under WDRs or conditional waivers, and suggests that marinas could be required to include provisions in leases or rental agreements that specify the types of AFPs to be used on boats allowed in the marina, limit the hull cleaning activities allowed in the marinas, and require use of best management practices by hull cleaners and boat owners, among other conditions.[58] Imposing such requirements on marina owners and operators through WDRs or conditional waivers would violate Water Code Section 13360, which states that "[n]o waste discharge requirement or other order of a Regional Board or the State Board or decree of a court issued under this division shall specify the design, location, type of construction, or particular manner in which compliance may be had with that requirement, order, or decree, and the person so ordered shall be permitted to comply with the order in any lawful manner."[59]

The Supplemental Staff Report states that the TMDL Implementation Plan does not dictate the method or manner of compliance, because it requires responsible parties to "develop their own proposed implementation plan with strategies to achieve these Cu TMDLs."[60] This claim elevates form over substance. The Implementation Plan includes specific "Recommended Implementation Tasks" to reduce copper discharges from copper-based AFPs, including: converting from copper AFPs to nontoxic AFPs or copper AFPs with lower leach rates (including by "restricting the use of Cu AFPs through marina leases, permits or other mechanisms"); requiring all underwater hull cleaners to use best management practices to reduce copper discharges; and continuing education programs for boaters, boatyards and marinas.[61] The Implementation Plan states that the implementation plan proposed by responsible parties "shall consider the recommended tasks listed below, and provide justification for tasks that are not included in their plans."[62] Both the 2016 Staff Report and the Supplemental Staff Report make clear that Regional Board staff believe the required reductions in discharges from boat AFPs cannot be achieved without implementing these "recommended"

[57] TMDL Implementation Plan, §§ 1, 2.

[58] Staff Report, at 78-79, 86.

[59] Cal. Water Code § 13360(a).

[60] Supplemental Staff Report, at 6.

[61] TMDL Implementation Plan, at §§ 1.2.1 – 1.2.3.

[62] TMDL Implementation Plan, § 1.2.

tasks.[63] Under the circumstances, it is clear that the Implementation Plan seeks to dictate precisely what methods will be used to reduce copper discharges from boats.

III. CONCLUSION

Regional Board staff have addressed some of the issues raised in prior comments on the proposed copper TMDL, including removing the finding of sediment impairment. The current proposed TMDL still requires revisions to address the implications of that change, including removing numeric targets and implementation tasks for sediment from the TMDL. The Regional Board also should consider further study and evaluation to determine whether water in Newport Bay is impaired for copper, before adopting a new TMDL, as the information supporting the proposed impairment finding for water is inconclusive and outdated.

If the Regional Board intends to move forward with a new TMDL, it should direct staff to correct legal deficiencies in the current documents. First, staff must obtain an independent peer review of the scientific basis for the TMDL, as required by State law. Second, the TMDL must be revised to eliminate reference to marina owners and operators as dischargers or responsible parties for purposes of boat AFP discharges and related sediment evaluation tasks.

[63] *E.g.*, Supplemental Staff Report, at 7, 10 ("[I]mplementation actions must be taken to reduce Cu discharges from boats. These actions may include the use of BMPs by all divers … [and] the conversion of some boats using Cu AFPs to nontoxic and non-Cu paints."