2022 Responses to Comments from August 2021 on the Proposed Copper (Cu) TMDLs for Newport Bay

Comment letters received

Orange County Coastkeeper

Letter from Orange County Coastkeeper dated August 16, 2021 regarding "Re: Comments on BASIN PLAN AMENDMENTS TO INCORPORATE TOTAL MAXIMUM DAILY LOADS FOR COPPER IN NEWPORT BAY

…We have reviewed the Draft Basin Plan Amendment to incorporate Total Maximum Daily Loads for Copper (Cu) for Newport Bay, Orange County, California and have the following comments.

[Comment 1] -The proposed timeline for compliance is too long. The draft TMDL includes a twelve-year timeline for compliance. This is arbitrary and not supported by facts. The Marina Del Rey Copper TMDL has a ten-year timeline, the Shelter Island Copper TMDL has a ten-year timeline (after a five-year voluntary compliance period) and a ten-year timeline for Newport Bay is appropriate. The 2018 Supplemental Staff Report states, "the City estimated the boat count to be 4,470, but this number does not include empty slips or smaller boats. (Coastkeeper estimates were somewhat higher than 5,000 boats/slips.)" (pg. 10, sect 7.2) This boat count is essentially identical to that of Marina Del Rey. In a November 6, 2015, Regional Board Response to Comments to Coastkeeper, the Regional Board justified a longer timeline for the Newport Bay TMDL on an estimated boat count of 10,000. Therefore, the argument that Newport has a significantly greater number of boats compared to Marina Del Rey is erroneous and a TMDL of ten-years is not only appropriate, but necessary for Newport Bay's health.

Response 1 – The proposed compliance schedule requires that the copper (Cu) TMDLs be achieved as soon as possible but no later than 12 years from the effective date of the TMDLs, i.e. upon USEPA approval. A maximum 12-year timeline is appropriate to reach a 60% reduction of Cu discharges from Cu AFPs, based on the time likely to be needed to implement Cu reduction strategies. In addition, there is an interim compliance schedule such that Cu discharges from boats must be reduced by 20% in 4 years, 40% in 8 years and 60% in 12 years. Also, in light of arguments by the City of Newport Beach that dissolved Cu concentrations in many areas of the Bay are close to or at the CTR criterion of 3.1 µg/L, the expectation is that compliance could be achieved in less than 12 years. The Water Board will consider whether or not the dischargers' proposed implementation plans, when submitted as required by the proposed TMDLs, reflect the "as soon as possible" requirement of the proposed TMDLs.

[Comment 2] -Also, the ten-year TMDL should begin from the date of its adoption by the Regional Board. TMDL history in Orange County has shown that longer timelines result in longer delays in implementation. The argument that action will occur as soon as possible but no later than the compliance date has been repeatedly disproven. There is no requirement for the Regional Board to use a compliance date that corresponds to approval of the TMDL by the USEPA. This practice dates to a 2015 pesticide TMDL approval that had to be redone. The only time that has ever happened. Unless the Regional Board feels that they are making such a controversial decision with this TMDL that USEPA will likely not approve it, the TMDL not being legally binding until USEPA approval is irrelevant. Starting the compliance clock at adoption of the TMDL by the Regional Board will incentivize to take action immediately after adoption of the TMDL by the Regional Board instead of waiting up to two years. Past Region 8 TMDLs and TMDLs from other Regional Boards start the compliance clock on adoption by the Regional Board.

Voluntary compliance measures ended in 2012, and the TMDL was scheduled to be adopted in 2016, but was postponed for no good reason. Since that time, the development of this TMDL has dragged on for five additional years, during which the dischargers have focused their efforts fighting Regional Board staff rather than attempting to reduce copper concentrations in Newport Bay. Allowing a twelve-year timeline, plus two years of waiting for additional approvals in addition to the five year delay in developing the TMDL, results in a nineteen year TMDL. This is unacceptable. Copper bottom paint is replaced at an interval of three years. A ten-year time period means that there are three opportunities for the average boater to switch to alternative boat bottom paints. Even using a five-year operational life for copper bottom paint means that every boat in Newport Bay will replace its bottom paint twice in a ten-year time frame. The fact is that alternatives to copper boat bottom paint and the boatyard capacity to apply them exist now. The TMDL being developed should have effective timeline of ten years or less.

Response 2 – It is not appropriate to establish a compliance schedule that begins on the date of Santa Ana Water Board approval since the Cu TMDLs would not become effective legally until approved by other agencies (including the State Water Board, Office of Administrative Law, and USEPA) and are not enforceable until effective. The Santa Ana Water Board cannot dictate or accurately predict the schedules for requisite consideration of the Cu TMDLs by these other agencies.

Pursuant to the proposed TMDLs, the dischargers are required to submit their own proposed implementation plans and schedules to achieve the reductions of Cu discharges from Cu anti-fouling paints (AFPs) on boats, which is the most critical step to achieve these TMDLs. The proposed plans/schedules are required to meet the "as soon as possible" test. The dischargers' plans/schedules are to be implemented upon approval by the Santa Ana Water Board. If Coastkeeper believes that the proposed plans/schedules do not meet the "as soon as possible" requirement, Coastkeeper can present relevant arguments to the Santa Ana Water Board when the Board considers approval of the dischargers' plans/schedules.

[Comment 3] -It is important the TMDL recognize that Upper Newport Bay is designated both as a State Marine Conservation Area as well as an Ecological Reserve. The staff report mentions "The Upper Bay estuary contains a State Ecological reserve in the upper half with habitat designated for sensitive species …" (pg. 7) However, there is no mention of Upper Newport Bay designation as a State Marine Conservation Area (SMCA) even though that designation was implemented in 2012. This is a significant issue as the boundary of the SMCA includes the entire Upper Bay, including the Newport Dunes and De Anza marinas. The Ecological Reserve, which is a separate designation, does not include these areas. Water quality protection is critical to Marine Protected Areas. To emphasize this the October 16, 2012, Supplemental Environmental Document for State Board Resolution 2012-0056 REGARDING STATE WATER QUALITY PROTECTION AREAS AND MARINE PROTECTED AREAS states "… marine water quality would play a role in the success of MPAs." In section 5.7.2 it states "If these newly designated MPAs require additional protection from potential impacts associated with degraded water quality, the State and Regional Water Boards under the authority of Porter Cologne would be responsible for developing and adopting more stringent permits or discharge conditions, including prohibitions within these areas."

Response 3 – Santa Ana Water Board staff are aware that Upper Newport Bay is an Ecological Reserve, as well as a State Marine Conservation Area and a Nature Preserve. The last two designations have been added to the description of Newport Bay in the Staff Report 2022. The proposed TMDLs are intended to correct water column impairment due to dissolved Cu in Upper and Lower Newport Bay and thereby assure that water quality standards are met throughout the Bay. This regulatory action is not contingent on the Ecological Reserve, Marine Conservation Area, or Nature Preserve designations: the TMDLs are required per Clean Water Act requirements to achieve and maintain water quality standards.

[Comment 4] -The Marine Protected Area designations were created due to the critical ecological functions of the Upper Bay and its significance to the state and local community. Protection of water quality in State Marine Conservation Areas needs to be prioritized. Unfortunately, even though this issue has been raised in multiple comment letters on this TMDL, Regional Board staff continues to ignore the Marine Protected Area designation in the TMDL documentation. The SMCA needs and deserves the highest level of protection from all forms of pollution. The TMDL should specifically address this issue and the boats in the upper bay should be prioritized for copper reduction activities within six years.

In past Regional Board Responses to Comments by Coastkeeper the Regional Board suggested that because the bay is tidally influenced "…it is likely that at least some of the copper in the Upper Bay comes from boats in the Lower Bay". This does not change the fact that the more rapid reduction of copper inputs from boats in the upper bay will result in lower copper concentrations in the water there. The Regional Board can and should require copper concentrations in the upper bay come into compliance in an expedited timeframe to protect the SMCA and Ecological Reserve.

Response 4 – Prioritization of Cu reduction activities in Upper Newport Bay can and should be considered as part of the approval of the implementation plan(s) developed by the dischargers. However, an expedited compliance schedule for the Upper Bay is unlikely to be achieved, given that reductions of Cu discharges from Cu AFPs on boats, most of which are located in the Lower Bay (and lower Upper Bay (DeAnza and Newport Dunes marinas)) must be achieved in order to achieve the CTR chronic criterion in the Upper Bay and Lower Bay. Reducing Cu discharges from Cu AFPs throughout the Bay should reduce Cu concentrations in the Upper Bay since tidal action reaches far into the Upper Bay

[Comment 5] -The TMDL should also include monitoring requirements for metals or biocides found in alternatives to traditional copper bottom paints. This will ensure that the transition away from copper paints does not result in a new threat to the bay from other biocides.

Response 5 – Comment noted and will be considered when the dischargers submit, and the Santa Ana Water Board considers approval of, their proposed implementation plan(s), including monitoring and evaluation programs.

In conclusion Coastkeeper supports the immediate implementation of Total Maximum Daily Loads for Copper (Cu) for Newport Bay that includes a date specific start and end with a ten-year timeframe. We also support an expedited six-year compliance schedule for the Upper Bay, in recognition of its status as a State Marine Conservation Area. As always, Coastkeeper supports the use of the best available science to determine the compliance requirements for this or any regulatory activity. The continuing delays in implementing this TMDL, including the recent postponement of the September 2021 hearing on this issue, run contrary to the science and only benefit the polluters that are degrading water quality and impacting period means that there are three opportunities for the average boater to switch to alternative boat bottom paints. Even using a five-year operational life for copper bottom paint means that every boat in Newport Bay will replace its bottom paint twice in a ten-year time frame. The fact is that alternatives to copper boat bottom paint and the boatyard capacity to apply them exist now. The TMDL being developed should have effective timeline of ten years or less.

Response 6 – Comments noted. Responses provided above.

US Environmental Protection Agency (USEPA)

EPA reviewed the proposed package and has the following comments:

1. The Staff Report includes several impairment assessments for Newport Bay, in addition to the copper TMDL. Please clarify whether the State's 2017 mercury fish tissue water quality criteria for aquatic life, wildlife, and human health were considered in the impairment assessment for mercury. All applicable water quality standards should be considered. The State's fish tissue mercury criteria, which are more stringent than the California Toxics Rule (CTR) aquatic life water column criteria and EPA's Clean Water Act (CWA) section 304(a) human health fish tissue criterion, apply to Newport Bay.

Response 1 –The impairment assessment for mercury was conducted prior to the establishment of the 2017 mercury criteria. Santa Ana Water Board staff's Impairment Assessment covered a range of metals, some of which were included in the TMDLs established by USEPA. The current proposed TMDLs include only Cu. Additional assessment would be necessary to determine mercury (Hg) conditions in the Bay and whether TMDLs are warranted.

2. Please update your reference to the most recent CWA section 303(d) list, which is the 2018 list. At page 2 of the proposed Basin Plan Amendment and page 16 of the Staff Report, it states that the 2014-16 list is the "most recent and applicable list"; these should refer to the 2018 list.

Response 2 –References to the 2018 303(d) list have been added to the Staff Report 2022 and proposed Basin Plan Amendment (BPA), with the explanation that the 2018 list did not include updates for Newport Bay or other surface waters in the Santa Ana Region based on newer data. Nevertheless, the approved 2018 303(d) list continues to identify Newport Bay as impaired due to dissolved Cu concentrations that exceed the CTR criteria.

3. EPA recommends moving the discussion of how the sediment target was calculated using the State's new Sediment Quality Objectives from a footnote in a table, to the body of the

proposed Basin Plan Amendment and the Staff Report. The proposed Basin Plan Amendment at page 4 includes a table entitled, "Numeric Targets for Copper (Cu) in Water and Sediment in Newport Bay"; footnote 3 contains a detailed discussion of how the sediment target of 96.3 µg/g for copper was derived. Similarly, the Staff Report, Table 5-1a, footnote 3, includes the same detailed discussion. Since the sediment target is a key component of the TMDL, we suggest moving the two discussions from footnotes in tables to the body of the documents.

Response 3 – As Santa Ana Water Board staff have discussed the matter of sediment targets with USEPA, and as shown in the revised draft Basin Plan amendment, the recommended sediment targets have been further revised from the June 29, 2021 documents. The sediment Cu targets include both a numeric target (the Effects Range Low (ERL) guideline (34 µg/g) from NOAA SQuiRTS (1999, 2008)) and an alternative target based on the Sediment Quality Objectives (SQOs) established in the State Water Board's Sediment Quality Provisions (2018). The alternative sediment Cu SQOs target is the sediment condition of Unimpacted or Likely Unimpacted (determined by chemistry, toxicity and benthic analyses per the SQOs methodology specified in the Sediment Quality Provisions). The alternative sediment Cu SQOs target is described both in the text and in the table note.

4. Please clarify whether the proposed copper TMDL applies to Rhine Channel, and whether further analyses (including analyses for contaminated sediments) for copper in Rhine Channel will be completed.

Response 4 – The Cu TMDLs apply to the Rhine Channel. Monitoring of Cu in the waters and sediments of Newport Bay, including the Rhine Channel, is required by the proposed Cu TMDLs.

5. All sources of copper to Newport Bay must be accounted for in the TMDL. EPA is aware that sector- specific general permits for storm water runoff associated with industrial activities from scrap metal recycling facilities exist within the Newport Bay watershed. If these facilities are a source of copper, please include a discussion of how the copper loads are accounted for within the TMDL (e.g., part of the MS4 load). If they are a direct source of copper to Newport Bay, they must be included in the allocations and TMDL.

Response 5 - Cu discharges from scrap metal facilities with the Newport Bay watershed are addressed as part of the TMDL allocation assigned to other NPDES Permittees. See Tables 6 and 7 in the revised BPA.

6. Please identify each NPDES permit (permittee and number) that will be assigned a wasteload allocation (WLA) in the TMDL, and each permittee's allowable load (mass and concentration). If it is not possible to determine individual WLAs, and group allocations are assigned, please include in the Implementation section how individual allocations will be determined, as discussed in the 2002 EPA Metals TMDL at page 18 of the Summary Document and copied below. If individual allocations are not appropriate and/or cannot be determined, please explain how the issue will be addressed.

At page 18 of the 2002 USEPA Metals TMDL Summary Document, it states:

"EPA is establishing the grouped allocations for the "other NPDES permittees" category

based on the following assumptions, which are discussed here to provide information to assist in implementing the allocations through the NPDES permitting process. The State, in consultation with the permittee(s) where appropriate, should gather data and information necessary to characterize the discharge flows and, if feasible, the loads of the specific pollutants for which allocations are established. The State should consider this new data and information when it considers adoption of the TMDLs and associated implementation plans for these toxic pollutants. If this categorical wasteload allocation is not subdivided when the State adopts the TMDLs, we assume that when any permit in this category is considered for revision or reissuance, the State should prepare an analysis as part of the permit fact sheet that (1) identifies the specific proportion or amount of the categorical wasteload allocation that can be discharged by the individual discharger, and (2) shows that the sum of all discharges covered by these permits will not exceed the total categorical wasteload allocation and is otherwise consistent with the TMDLs. Several alternative approaches are available to the State to apportion available loading amounts among the facilities covered in this wasteload allocation category (see *Technical Support Document for Water Based Toxics Control*, (EPA-505-2-9-001), March 1991, pp. 68-69 for guidance on allocation criteria)."

Response 6 – A table identifying NPDES permit numbers/permittees has been added to the TMDLs (see Table 7 in the revised BPA). It is expected that the wasteload allocations for the NPDES Industrial Stormwater General Permit, NPDES Construction Stormwater General Permit, and NPDES Scrap Metal Stormwater General Permit will be implemented through a best management practice based iterative process such as corrective actions or numeric action levels. Given this, it would be inappropriate and unnecessary to specify individual allocations for each of these permittees.

7. Please identify which NPDES permits are issued under CWA section 301(b)(1)(C) and which are issued under section 402(p). This is necessary to determine whether the proposed 12-year compliance schedule authorizing provision in the Implementation section will be used to implement WLAs for water quality-based effluent limits in permits authorized under CWA section 301. If the TMDL assigns WLAs for permits issued under CWA section 301, the proposed compliance schedule authorizing provision will be considered a water quality standard under CWA section 303(c), and USEPA would need to review and act on it accordingly (*In re Star-Kist Caribe, Inc.*, 3 E.A.D. 172 (Adm'r 1990), *modification denied* (EAB 1992)).

Response 7 – All NPDES permits shown in Table 7 in the proposed BPA are issued under Clean Water Action section 402(p), with the exception of USEPA's Vessel General Permit (VGP), which regulates vessels 79 feet or greater in length and is issued under section 402(a) (78 Fed. Reg. 21938, 21940). As USEPA is aware, the State Water Board issued a conditional Clean Water section 401 water quality certification for the VGP. The conditions include the requirement that vessels covered under the VGP comply with applicable water quality control plans (Basin Plans) established by the Regional Water Boards. Once approved, the Cu TMDLs will become part of the Basin Plan for the Santa Ana Region. VGP enrollees will therefore need to comply with applicable requirements of the Cu TMDLs, including the allocation assigned to commercial vessels 79 feet or greater in length.

8. Please clarify the footnotes in the table entitled, "Mass-Based Allocations for Copper (Cu) in

Newport Bay" at page 8 of the proposed Basin Plan Amendment, and the similar table in the Staff Report, Table 5-5, at page 75. USEPA recommends using sequential numbering as one reads across the table.

Response 8 – For clarity, the footnote identification system has been revised to a sequential numbering system in both the proposed BPA and Staff Report 2022.

9. Please explain why a 10% margin of safety (MOS) was chosen for the copper TMDL. The 2002 EPA Metals TMDL for copper uses a 20% MOS because the conversion factor to convert from a total to dissolved water quality criterion is 0.83, i.e., approximately 80% of the copper in the lab water used to generate the conversion factor was in the dissolved form. If site-specific studies are not conducted to determine the ratio of dissolved to total copper in waters of Newport Bay, this conversion factor will be used as the default translation factor to translate a dissolved wasteload allocation into a total recoverable effluent limit (effluent limits for metals must be in total recoverable; see 40 CFR § 122.45(c)). EPA used a 20% MOS to account for the load attributable to potential differences in this ratio for waters in Newport Bay.

Response 9 – An explanation was added to the revised BPA & Staff Report 2022. See Table 6, note 9 in the BPA; and Table 5-5a in the Staff Report 2022. The margin of safety was reduced to 10% from 20% since conservative assumptions were employed in deriving the proposed TMDLs.

City of Newport Beach

Letter from the City of Newport Beach dated August 30, 2021 regarding "Regional Board Meeting/Workshop on October 15, 2021, related to the Basin Plan Amendments to Incorporate Total Maximum Daily Loads for Copper in Newport Bay", and 6 Attachments.

First, we would like to reiterate our sincere appreciation for the Regional Board's work in improving water quality in the Santa Ana River watershed. The Regional Board has been an important partner with us – and we with you – in these efforts.

However, the pending Amendments continue to have us greatly concerned. This is the 3rd time formal written comments have been provided. Due to limited written communication, lack of clarity, the failure to timely respond to comments, and what appears to be a disregard for scientifically justifiable alternative approaches, the City does not feel the Regional Board's staff have truly considered the submitted comments and the scientific/legal opinions. In addition, the new data shows there is clearly no Cu impairment in the harbor.

Response 1 - Santa Ana Water Board staff have extensively communicated with and engaged the City of Newport Beach since the beginning of the development of these TMDLs (in July 2015). This communication includes in-person discussions as well as providing multiple opportunities to review and comment on draft documents. The Santa Ana Water Board has complied with all applicable legal requirements for preparing and distributing responses to comments, including comments provided by

the City. The City does not specify the "scientifically justifiable alternative approaches" that it asserts Santa Ana Water Board staff has disregarded. A number of potential alternatives to the proposed TMDLs are discussed in the draft Substitute Environmental Document (SED) 2022, including some alternatives identified by the City. The SED 2022 considers these alternatives based on their potential environmental impacts, and whether or not they provide the requisite reasonable assurance that the TMDLs will be achieved and water quality impairment due to dissolved Cu will be corrected. On the basis of this analysis, the proposed TMDLs are the recommended action.

Newer data, including data collected by the City (2015-2016, 2019) and the Department of Pesticide Regulation (DPR)(2019), were evaluated using the methodology established in the State Listing Policy (SLP) (Water Quality Control Policy for Developing California's Section 303(d) List (2004, amended 2015)). These analyses continue to demonstrate water column impairment of Newport Bay due to dissolved Cu. See discussion of these newer data in the Staff Report 2022 (Appendix A to the SED 2022).

[Comment 2] As you know, the City provided extensive written and oral comments to you on July 24, 2015, when staff included Newport Bay Copper/Metals TMDLs as an informational item on the Regional Board's regular agenda. At that time, we advised the Regional Board the City was very concerned about the proposal to require the City and others to restrict or ban the use of California approved legally available copper-based AFP through a new TMDL. In particular, we outlined to the Regional Board that the implementation plan was both unenforceable and a circumvention of the legal role and rights of the California Department of Pesticide Regulation ("DPR"), which is the exclusive California regulator of pesticides, including copper AFP. We urged you to confer with the City and engage in a meaningful dialogue about the current copper levels in Newport Bay and the development of meaningful Amendments.

*Response 2 – Santa Ana Water Board staff have previously responded to these comments (see responses to comments from the City of Newport Beach and Gregory Newmark, on behalf of the City, in the Responses to 2016 Comments Document (2018) and Responses to August 2018 Comments Document (2021)). In brief, the TMDLs do not require the City or others "*to restrict or ban the use of California approved legally available copper-based AFP through a new TMDL." *Rather, the proposed Cu TMDLs require the City and other responsible parties to reduce Cu discharges to achieve water quality standards. The largest source of Cu to the Bay is Cu discharges from Cu AFPs on boats; Cu discharges from these paints must be reduced to achieve the TMDLs. These reductions may be accomplished by employing BMPs (including container/filter methods) for hull cleaning, using lower leach rate Cu AFPs, incentivizing the use of non-biocide AFPs, and/or other measures that may be identified by the dischargers.*

The Santa Ana Water Board agrees that DPR is the sole state agency with the authority to regulate the sale and use of Cu AFPS; however, the Regional Water Board has the authority and obligation to regulate the discharge(s) of Cu (and other pollutants) from

legally available pesticides and other sources so that a water body meets the applicable water quality standards. Since both Upper and Lower Newport Bay remain impaired due to dissolved Cu, TMDLs are necessary to correct that impairment. To achieve the TMDLs, Cu discharges from Cu AFPs on boats must be reduced since this is the largest source of Cu to the Bay. The proposed Implementation Plan includes recommended tasks, such as the use of BMPs during hull cleaning, that the dischargers must consider, but are not required to use in their own implementation plan(s).

We remind the City that whether or not the proposed Cu TMDLs are approved, Cu TMDLs for both Upper and Lower Newport Bay were established in 2002 by USEPA. Absent approval of the proposed Cu TMDLs, the Santa Ana Water Board is required to take regulatory steps to implement USEPA's TMDLs. Like the proposed Cu TMDLs, USEPA found that Cu discharges from Cu AFPs on boats are the largest source of Cu to the Bay. Based on USEPA's assumptions and calculations, these Cu discharges would need to be reduced substantially (approx. 92%) to achieve USEPA's Cu TMDLs. In contrast, the proposed Cu TMDLs require a 60% reduction of Cu discharges from Cu AFPs on boats.

The Santa Ana Water Board solicited the opinion of DPR on the issue of whether there is a legal conflict between DPR's regulation for the sale and use of lower leach rate Cu AFPs and the Water Board's adoption of the proposed Cu TMDLs. DPR opined that "There is no legal conflict between DPR's regulation of the sale and use of copper-based AFPs, and the authority of the Regional Board to regulate the discharge of Cu and adopt and implement a revised Cu TMDL[s]."(See letter from Hope Smythe, Santa Ana Regional Water Quality Control Board, to George Farnsworth (DPR), November 8, 2017 and reply by George Farnsworth, Department of Pesticide Regulation, to Hope Smythe, November 16, 2017; see also Response 7.2 to G. Newmark's comments on behalf of the City (Response to 2016 Comments Document (2018)). In responding to the Santa Ana Water Board, DPR was aware of the proposal to establish and require implementation of TMDLs to address copper discharges and recognized that the Water Board's approach "is not dictating a total ban on the use of copper [n]or prescribing the specific method or manner of compliance with the TMDL." DPR recognized that the establishment of a copper leach rate cap alone "will not always achieve continuous compliance with the California Toxics Rule (CTR) for the few largest saltwater marinas (i.e. approximately greater than 1300 boats) where water quality standards are already exceeded. As a result, DPR issued a number of recommended mitigation measures to aid in compliance that include best management practices (BMPs), reduced frequency for in-hull water cleaning, outreach, consideration of site-specific objectives and fostering of new and existing incentive programs to convert copper-painted boat hulls to those painted with alternatives." (See November 16, 2017, Letter to Hope Smythe, p. 2.) Thus, DPR anticipated the types of measures that may be used to implement the TMDLs when providing its opinion to the Santa Ana Water Board and was aware, based on the draft TMDLs, that local agencies identified as responsible party dischargers, might undertake these implementation efforts. Had DPR been concerned that likely implementation actions might be preempted by Section 11501.1(a) of the Food and

Agriculture Code, it is reasonable to conclude that DPR would have identified this concern.

Moreover, as noted in then staff report, on June 8, 2010, the City adopted Resolution No. 2010-53, "A Resolution of the City Council of the City of Newport Beach Endorsing a Program to Encourage the Use of Copper-Free Boat Bottom Paints." (See 2010-53 - Copper-Free Boat Bottom Paints - Laserfiche WebLink (newportbeachca.gov).) *In this Resolution, the City recognized that USEPA had demonstrated that boats are the largest contributor of copper to Newport Bay and the City resolved to "encourage[s] all boat owners in Newport Harbor to protect the Harbor by taking advantage of the available educational and outreach opportunities to identify and voluntarily change to non-toxic, copper-free anti-fouling vessel bottom paint." The Regional Water Board is not aware of a City of Newport Beach council action rescinding or modifying this resolution of intent.*

*Similarly, we note that currently the City of Newport Beach website specifies "Harbor Rules and Regulations" for Newport Harbor. [*Harbor Rules and Regulations | City of Newport Beach (newportbeachca.gov)] *The listed Environmental Regulations include the following instructions to boaters: "Do not use paints with [copper] or toxic biocides"; "Limit all in-water maintenance to no-discharge activities"; "Follow best management practices during boat operation and maintenance"; "Hire maintenance companies who follow these procedures so you are not fined."*

(See https://www.newportbeachca.gov/home/showdocument?id=1268.) *These types of measures the City is already recommending are consistent with the types of actions or measures the Santa Ana Water Board anticipates the City and other dischargers will consider in developing their proposed implementation plans for the proposed TMDLs.*

[Comment 2] The promised workshops were postponed for almost three years and, when they were finally held in May of 2019, the community brought forward similar concerns. However, there was no discussion related to alternative paints at these workshops and Regional Board staff said they would hold further workshops on alternative non-copper AFPs. Unfortunately, these future workshops never occurred.

Response 2 – Two workshops were conducted in May 2019, in addition to multiple conference calls with the City, County, Irvine Company, and O.C. Coastkeeper over the last several years.

In addition, technical meetings to discuss the technical/scientific aspects of the proposed Cu TMDLs (e.g., monitoring programs) were held on August 26, September 21 and October 14, 2021. These meetings included the City, County of Orange, and the Irvine Company, as well as Santa Ana Water Board staff. The technical topics for these meetings were not limited in scope.

All parties have had ample opportunity to discuss/comment upon issues of concern, including the topic of alternative paints. Further, additional discussion about alternative

paints has been added to the Staff Report and Draft SED 2022.

[Comment 3] The primary constraint preventing the City from supporting the Amendments remains the fact that the City is being asked to implement copper reductions that limit individual boaters use of legally approved paints. In addition, alternative non-toxic/non-copper boat paints are not readily available and are more expensive and less effective than the legally approved paints. Moreover, these paints have not been embraced by the boating community.

*Response 3 – First, the City is not being asked "*to implement copper reductions that limit individual boaters use of legally approved paints." *See Response to Comment 1, above. Moreover, the City is among other dischargers, including the County, marina owners and operators, hull cleaners and individual boat owners, being asked to implement practices to achieve necessary copper reductions to correct impairments due to copper in Newport Bay, including impairment from discharges of Cu from Cu AFPs on boats.*

Second, with respect to alternative paints, some non-toxic (non-biocide) and non-Cu biocide paints are available for use on recreational boats. Non-biocide paints may cost more initially to apply, but they tend to last longer and require less frequent repainting, which results in a long-term cost savings. These paints are not registered/regulated by DPR since they are considered to be non-biocides; however, the environmental effects of non-biocide paint ingredients have not been well-studied. They will likely also require more cleaning since they are not biocides, but they can mostly be cleaned with a soft cloth. Non-Cu biocide AFPs, such as Zn or organic paints, are also available, and are regulated by DPR since they are biocides; however, they have known toxicities to aquatic organisms. Santa Ana Water Board staff do not recommend the use of non-Cu biocide paints. In addition, implementation efforts, including boater education on water quality impairments due to dissolved Cu from Cu AFPs, and recommended management measures, including the use of BMPs for hull cleaning and the possible use of non-biocide paints may result in wider willingness to consider us of alternative paints.

Finally, although USEPA and DPR may have authorized the sale of Cu-based paints for use in general, the Regional Board has the authority to limit the discharge of copper to waters of the state. Because Newport Bay exceeds water quality standards for copper, reduction in the discharge of copper is necessary to comply with the Porter-Cologne Water Quality Control Act and the Clean Water Act. In practical effect, the limitation on discharges of copper necessary to achieve water quality standards may require the reduction the use of copper-based paints. See also Response to Comment G. Newmark L.2.a, below.

[Comment 4]
While the City could provide educational materials, it does not have the authority to prevent boat owners from using copper based AFPs. The required action in the

proposed Amendments also shifts the burden on the City to develop an implementation plan that is infeasible and sets the City, County and State up for failure.

*Response 4– Santa Ana Water Board staff agree that the City "*does not have the authority to prevent boat owners from using copper based AFPs." *The proposed implementation tasks recommend that boaters be educated and offered incentives to convert to non-biocide AFPs. Conversions to lower leach rate Cu AFPs are already required (per DPR's leach rate regulation). Water Board staff do not agree that an implementation plan to be developed by the City is infeasible. Straightforward measures, such as the implementation of Best Management Practices (BMPs) for hull cleaning, boater and diver education programs, and underwater hull cleaner (diver) certification programs are measures already being employed elsewhere (Shelter Island Yacht Basin) to address Cu impairment. Moreover, the City has had multiple opportunities to identify and investigate such workable strategies to address Cu discharges from Cu AFPs. Since the outset of development of these TMDLs, Santa Ana Water Board staff have communicated with the City on both the need to meet TMDL requirements (including USEPA Cu TMDL requirements for Newport Bay) and methods that might be available to the City to do so. See also, Response 2 to City of Newport Beach comments noting the 2010 Resolution of the City of Newport Beach (Resolution 2010-53) encouraging boaters to convert from Cu AFPs, and the Harbor Rules and Regulations encouraging practices to address Cu discharges including avoiding use of copper-based paints.*

Further, per a request by the City and the County of Orange, Water Board staff provided additional time beyond the written comment period, for the City and County to prepare a proposed Alternative Implementation Plan to supplement/revise Santa Ana Water Board staff's proposed TMDLs. The County/City proposal was submitted on January 28, 2022; see Appendix B to the draft SED 2022). Water Board staff reviewed this proposed Implementation Plan; however, since the proposal did not include feasible and/or reasonable measures to address Cu reductions from AFPs, such as the measures identified above, and since the proposal relied instead on actions by state agencies that the Santa Ana Water Board cannot compel, Water Board staff found that the City/County proposal failed to meet the requisite purpose of correcting water quality impairment due to Cu to achieve water quality standards in the Bay. Santa Ana Water Board staff's response to the City/County proposal is also shown in Appendix B-5 to the draft SED.)

[Comment 5] To date, we do not believe that our concerns about the practical impacts of the proposed implementation plan to our community and Newport Bay have been acknowledged or appreciated.

Response 5 – Santa Ana Water Board staff have had numerous discussions with the City and others regarding their concerns on these Cu TMDLs. This comment, and the comments that follow below were included in the City's October 2016 and August 2018 comments and were responded to in the Responses to 2016 Comments Document (2018)

and the Responses to August 2018 Comments Document (2021). Brief responses are provided again below.

Comment 6
Our original comments and concerns still stand. We believe the proposed Amendments have the following significant problems:

- The Amendments seem to be underdeveloped and unsupported, in part because they rely on data that is out-of-date, incorrect and overly conservative; and

- The Amendments are impractical, if not impossible, for the City to effectively implement.

Response 6: As Santa Ana Water Board staff have previously responded, Water Board staff's Impairment Assessment is consistent with the methodology established in the State Listing Policy, including the selection of data to be evaluated. While the City has criticized the Impairment Assessment, it has not provided compelling evidence that the data upon which staff's Impairment Assessment rely are incorrect, overly conservative or out-of-date. As stated in the Response to Comment 1, above, Santa Ana Water Board staff have also evaluated recent data provided by both the City and DPR; these data, collected in Lower Newport Bay, continue to demonstrate dissolved Cu impairment of Lower Newport Bay. Regarding the implementation of the proposed TMDLs, Santa Ana Water Board staff disagree that the TMDLs will be impractical or impossible to implement. See Response to Comment 4, above.

Comment 7
'Generally, our request is as follows:

1. Do not adopt the Amendments at this time.

2. Allow for an additional review period and for the current DPR study to be completed (est. 2024). This study is evaluating the effectiveness of recently approved lower leach rate copper paints. DPR developed the new copper leach rate limits to bring harbors, like Newport into compliance. The 2019 results suggest the current paint formulations are sufficient and it is premature to add additional limits. The City has partnered with DPR and expanded the study to include all areas of the harbor and two more sampling events are planned for 2022 and 2023. To move forward, it is important to include DPRs findings in the development of implementation plans, so we can assess whether further reductions are needed.

While there may be a couple isolated spots in the harbor with very low-level exceedances of dissolved copper in the areas with the least circulation, those exceedances have not resulted in any observed toxic effects nor are they at concentrations anticipated to result in observed toxic effects (DPR monitoring report). The last targeted sampling effort conducted by the City and DPR[1] in the summer of

2019 found only 5 out of the 47 sample locations with detectable dissolved copper concentrations above 4.0 µg/L resulting in a bay-wide average concentration of 2.6 µg/L, which is well below the 3.1 µg/L criteria. (Attachment 6). As stated above, the new low leach rate copper AFPs now being implemented were designed to bring harbors like Newport into compliance. The Regional Board Staff Report continues to misrepresent the current conditions in the harbor and uses only portions of studies, suspect data, and out of date data to present a biased view thatis not reflective of current conditions.

Response 7 – The draft SED 2022 evaluates the alternative of taking no action to adopt the proposed TMDLs and awaiting the results of implementation of DPR's regulation requiring the use of lower leach rate Cu AFPs on recreational boats. This draft SED rejects this alternative because it does not provide the requisite reasonable assurance that Cu impairment of Bay will be corrected and that water quality standards will be achieved and protected. Further, DPR's leach rate regulation assumes that actions will be taken to implement BMPs, such as the use of soft cloths for hull cleaning to help reduce copper discharges. Implementation of the new lower leach rate Cu AFPs alone does not suffice.

The proposed Implementation Plan provides the flexibility to direct actions to reduce Cu discharges first to areas where Cu non-compliance is most severe.

As Santa Ana Water Board staff have responded repeatedly, water column impairment due to Cu is not determined based on a Bay-wide average Cu concentration. Rather, Water Board staff evaluated the data in accordance with the established State Listing Policy (SLP) and determined that impairment due to dissolved Cu exists. Specifically, the criterion for dissolved Cu is 3.1 µg/L, not 4.0; therefore, the number of samples exceeding 4.0 is irrelevant. The number of exceedances in the combined data for DPR and the City is 12/47, and the SLP requires ≥4/47 exceedances for a water body to be considered to be impaired and listed. Second, the number of exceedances/number of samples is used to determine the impairment status of a water body not an average pollutant concentration. While Water Board staff's initial Impairment Assessment was based on data from 2002-2014, evaluation of more recent data provided by the City and DPR continues to demonstrate water column impairment of Newport Bay due to dissolved Cu. See response to comment 1, above.

Regarding the statement that "DPR developed the new copper [Cu] leach rate limits to bring harbors, like Newport into compliance. The 2019 results suggest the current paint formulations are sufficient and it is premature to add additional limits." : *This is not an accurate reflection of DPR's findings and actions. First, DPR recognized that while the establishment of a Cu leach rate cap is expected to reduce loading of Cu to saltwater marinas in California, DPR determined that the use of the leach rate cap "*alone will not always achieve continuous compliance with the California Toxics Rule (CTR) for the few largest salt water marinas (i.e. greater than 1270boats) where water

quality standards are already exceeded". *(See November 16, 2017, Letter to Hope Smythe, p. 2.) Accordingly, DPR issued a number of recommended mitigation measures to assist in achieving compliance within these marinas. These measures include best management practices (BMPs), such as soft cloths for hull cleaning, reduced frequency for in-hull water cleaning, outreach, consideration of site-specific objectives and fostering of new and existing incentive programs to convert boat hulls painted with copper AFPs to alternative paints/coatings. In addition, the use of BMPs, including the use of soft cloths for hull cleaning, was built into the determination of DPR's maximum allowable leach rate for Cu AFPs. Again, implementation of DPR's lower leach rate for Cu AFPs alone is not adequate to achieve the water quality criterion in the larger marinas.*

Comment 8.1, 8.2

3. Work with the City to address this issue. The City commits to participating thoroughly and in good faith in future discussions, provided the parties do so collaboratively, as has been our collective spirit in the past. To support this request, we developed multiple technical documents to support the needed revisions in the previous draft. The inadequacy of the proposed Amendments spans a wide array of legal and technical issues that were summarized in the proceeding [sic] comment packages, which again, we do not believe have been addressed thoroughly. Now we are providing another updated memorandum that summarizes the availability of non-copper AFP.

Response 8.1 – Santa Ana Water Board staff have previously responded in detail to similar comments submitted by the City of Newport Beach. Where appropriate, changes to the proposed TMDLs and/or supporting documentation have been made in response to those prior comments. (See Responses to the City's comments in Santa Ana Water Board staff's 2018 and 2021 Responses to Comments documents.) As previously stated, Board staff have communicated extensively with the City regarding these TMDLs since their development was initiated in 2015. See Responses to Comments 1 and 4, above. See also Response to the City's Comment 1, Responses to 2016 Comments document (2018).

Regarding the referenced updated memorandum on the availability of non-copper AFPs (Memorandum to John Kappeler, City of Newport Beach, from Shelley Anghera, PhD and Bryce Corlett, PhD, Moffat and Nichol, "Review of Non-copper-based Alternative Antifouling Paints to Support Discussion on Implementation Strategies for Reducing Copper by Boat Paint Conversions", referenced as Attachment 5 to the City letter, but included immediately following Attachment 4 without separate identification See the detailed responses to the City's Comment 9.2, and to G. Newmark's Comments 6 and L.1.1.c., below. In short, non-copper AFPs are available and are recommended for use by the USEPA and the Washington Department of Ecology, which conducted assessments of alternatives to Cu-based AFPs.

4. Require a formal separate unbiased peer-review of the Amendments…

Response 8.2
Pursuant to Health and Safety Code Section 57004 proposed rules that have a scientific basis or components generally must be submitted for external scientific peer review. However, per the Unified California Environmental Protection Agency Policy and Guiding Principles for External Scientific Peer Review (March 13, 1998), this peer review is not required if a new application of an adequately peer-reviewed product does not depart significantly from its scientific approach. Santa Ana Water Board management is responsible to determine whether or not a work product must be submitted for external scientific peer review.

Santa Ana Water Board staff prepared a memorandum for Water Board management consideration, documenting the application of peer reviewed scientific work products, methods and approaches in developing the proposed Basin Plan amendments. (Memorandum to Hope Smythe, Executive Officer-SARWQCB, "Justification for No Additional Peer Review for the Proposed Basin Plan Amendments to Incorporate Copper (Cu) TMDLS and Action Plans for Zinc (Zn), Mercury (Hg), Arsenic (As) and Chromium (Cr) for Newport Bay, California", November 2, 2020.) This memo provides justification for Santa Ana Water Board staff's conclusion that no additional external scientific peer review of the proposed Basin Plan amendment is required. Santa Ana Water Board management concurred with Water Board staff's conclusion that no additional peer review is required.

Subsequent changes to the proposed Basin Plan Amendments were made to add an alternative sediment Cu SQOstarget that is based on the Sediment Quality Objectives in the State Water Board's Water Quality Control Plan for Enclosed Bays and Estuaries of California –Sediment Quality Provisions *(2018). These Sediment Quality Provisions were the subject of extensive external scientific peer review. To address the addition of an alternative sediment Cu SQOs target, Water Board staff prepared a second, supplemental memorandum for Board management consideration to document the application of the peer-reviewed Sediment Quality Provisions in the revised proposed Basin Plan Amendments and to make the recommended determination that no further peer review of this element of the Amendments was necessary (Memorandum to Jayne Joy, Executive Officer-Santa Ana Water Board, "Justification for No Additional Peer Review for the Addition of a Sediment Copper (Cu) Sediment Quality Objectives (SQOs) Target in the Proposed Basin Plan Amendments to Incorporate Copper (Cu) TMDLs for Newport Bay, California, September 19, 2022* ***(SUPPLEMENT TO THE NOVEMBER 2, 2020 MEMO TO HOPE SMYTHE, EXECUTIVE OFFICER, SARWQCB, TITLED "JUSTIFICATION FOR NO ADDITIONAL PEER REVIEW FOR THE PROPOSED BASIN PLAN AMENDMENTS TO INCORPORATE COPPER (Cu) TMDLS AND ACTION PLANS for ZINC (Zn), MERCURY (Hg), ARSENIC (As) and CHROMIUM (Cr) FOR NEWPORT BAY, CALIFORNIA", April 27, 2022).***

Santa Ana Water Board management concurred with Water Board staff's conclusion that, pursuant to the applicable guidance, the proposed Basin Plan Amendment does not require

further external scientific peer review.

Comment 9.1-8
Again, the City's primary concerns include, but are not limited to, the following:

- The Regional Board does not have authority to impose responsibility on the City for discharges of copper from individual boats painted with state-regulated copper AFPs.

The City is not a discharger and has no active role in the individual decision-making or regulation of activities leading to the release of copper from AFPs because:

a) The City does not regulate the individual choices of boat owners to engage in the legal use of AFPs;

b) The City lacks knowledge with respect to which of the vast majority of privately owned and operated boats use AFPs (versus alternative paints);

c) The City lacks knowledge regarding the respective leach rates; and

d} The City does not control the manner of and/or frequency with which boats painted with AFPs are cleaned.

The City does not permit or license the cleaning of boats with AFPs, and the City is legally prohibited from controlling the design, sale or use of AFPs. If DPR determines the reduced copper leach rate paints are not sufficient to reduce copper to compliance levels, then the Regional Board and DPR need to determine if further paint leach rate formulas are needed in specific waterbodies or identify the regulatory mechanisms to force individual owners to use specific paints. DPR still controls the use of pesticides in the State of California; the City cannot control the use of any pesticide.

Additionally, the Regional Board does not have authority to compel the City to adopt an implementation plan in the manner required in the Proposed Basin Plan Amendment (BPA). Such an attempt is a direct violation of section 13360 of the Porter-Cologne Water Quality Control Act.

Response 9-1. - The City's basic premise, that it is not a discharger and has no responsibility or ability to take action to reduce Cu discharges, is incorrect. A series of State Water Resources Control Board (State Water Board) decisions established criteria for determining landowner liability: (1) ownership of the land on which an activity occurs that results in the discharge of waste; (2) knowledge of the activity causing the discharge, and (3) the ability to control the activity. (See e.g., State Water Board Order Nos. WQ 87-5, 86-18, 86-15, 86-11, 84-6, 90-03.)

(1) The City is a discharger based on its authority over the tidelands—(1) the City is a grantee of the tidelands and submerged lands within the City of Newport Beach and as such holds the lands in trust for the public and has control over the land (see e.g., chapter 74, Statutes of 1978, and as amended by Senate Bill No. 1577 in 2012); (2) the City has knowledge that

copper (Cu) is being discharged from Cu AFPs used on boats in Newport Bay; and (3) the City has the ability to control the discharge. The City issues licenses and permits (e.g., for pier and mooring uses), and enters into leases for marinas and other facilities (e.g., Balboa Yacht Basin slips, Balboa Island Ferry, Basin Marine Shipyard, Balboa Bay Club) for activities and facilities that occur on and/or occupy tidelands in the Bay. The City collects fees for these licenses, permits and lease agreements. (Reports of tidelands uses, fees and administration are found at https://www.newportbeachca.gov). *See, for example, a Tidelands Summary, October 19, 2011.*

While the Santa Ana Water Board does not require or anticipate the City will "regulate" discharges of residual copper, the City's managerial authority over the tidelands and submerged wetlands where boats in Newport Bay are moored, affords it sufficient control over discharges of residual copper. Contrary to the City's comment, the City has authority to take steps to control the discharge by requiring hull cleaning BMPs in lease agreements for slips and marinas (and/or in marina regulations), requiring diver certification/education for hull cleaning for boats stored and maintained at facilities in the tidelands, providing education programs to boaters/boatyards and by incentivizing the conversion to non-biocide AFPs for these same boats. These actions do not require the City to control the sale, use, or transportation of Cu AFPs or otherwise implicate the preemption clause under Food and Agricultural Code section 11501.1. Absolute control (to the exclusion of other actors) over discharges and their effects is not required for the Santa Ana Water Board to find that the City, as a landowner, has sufficient control to be identified as a discharger. (See, e.g., State Water Board Order WQ 1989-08, In re Spitzer, p. 8.) To the extent that some tidelands within the City of Newport Beach are privately owned and also have marinas, docks or similar facilities, the Santa Ana Water Board would also consider such tideland owners to be dischargers.

The City does not explain its assertion that the requirement for the City to develop an implementation plan is a violation of Water Code section 13360. Water Code section 13360 precludes the Santa Ana Water Board from dictating the method or manner of compliance with the Water Board's requirements under most circumstances. However, the proposed TMDLs do not purport to dictate or prescribe how the City or other responsible parties comply with the TMDLs. Rather, the proposed Cu TMDLs require the City and other dischargers to propose an implementation plan(s) whereby the TMDLs are expected to be achieved, and to implement that Plan upon Santa Ana Water Board approval. The proposed Cu TMDLs Implementation Plan identifies a number of tasks that must be considered in the development of the dischargers' implementation plans, but the TMDLs do not require that any or all of these tasks be a part of the dischargers' implementation plans.

Moreover, the TMDLs are not self-implementing and do not constitute an order or directive to comply in any particular way. The TMDLs will need to be implemented through waste discharge requirements, conditional waivers, or other regulatory actions subject to separate public processes.

We understand that the City, County of Orange, and other dischargers identified as responsible to achieve the proposed TMDLs met with DPR to discuss the implementation of DPR's lower leach rate Cu paint regulation, including the importance of label instructions, paint availability and related matters. DPR provided a list of registered Cu AFPs and their

leach rates. This information should assist the City and other dischargers in public education and other efforts to identify Cu AFPs with leach rates below DPR's maximum allowable leach rate and to reduce Cu discharges from AFPs. See also Response 1.1 to County of Orange Comment 1.1, infra.

Comment 9.2

- The copper TMDL is impractical because alternatives to copper AFPs are not effective or available and may have significant adverse environmental impacts. The State of Washington has realized this point and delayed the ban on the use of copper based AFPs because it feared the alternatives will cause greater environmental harm.

Response 9.2
The proposed TMDLs do not require the use of alternative AFPs. Reductions in Cu discharges from Cu AFPs do not necessarily rely on the use of alternative AFPs. Such reductions can be achieved through the implementation of BMPs, diver certification programs, education programs, and/or other measures identified by the dischargers. Alternatives to copper AFPs are available and can be effective, though increased hull cleaning may be required. It is acknowledged that there are few environmental studies of the ingredients of these paints, so their impacts on the environment are speculative. In its 2019 report to the Legislature ("Antifouling Paints in Washington State Report and Recommendations- Report to the Legislature Pursuant to SHB 2634 (2018), September 2019, Publication 19-04-020), *the State of Washington Department of Ecology assessed emerging technologies to address boat hull fouling and identified a number of alternatives safer than the use of Cu or other biocide AFPs. These include the use of non-biocidal AFPs, as well as the use of boat lifts and other "dry dock"-like fouling avoidance options.*

Comment 9.3

- The phased implementation schedule is unreasonable, unsupported and would force substantial investments that may be unnecessary. The Regional Board should let the DPR copper reduction effort take effect so the anticipated reduction in copper loading can be assessed, while allowing safe alternative paints to be developed and evaluated.

Response 9.3
The Staff Report 2022 (Appendix A to the SED 2022) has been revised to provide additional explanation of the basis of the proposed implementation and compliance schedule. The proposed schedule provides sufficient time to develop a Water Effects Ratio (WER) adjustment to the Cu CTR criteria (or other methods to develop site-specific objectives, such as the biotic ligand model, or multiple linear regression model), to develop and implement diver certification/education programs, and boater education programs, to implement BMP programs and, if this strategy is chosen by the dischargers, to convert boats from Cu AFPs to non-Cu AFPs as part of routine boat maintenance. As described in Response to Comment 7, above, the alternative of taking no action to adopt the proposed TMDLs and await the results of implementation of DPR's leach rate regulation for Cu AFPs was

considered by Board staff but rejected. First, this option does not provide reasonable assurance that Cu impairment will be corrected. Second, DPR's leach rate regulation assumes that BMPs will be implemented in conjunction with the use of the new lower leach rate AFPs since the leach rate calculation included the use of BMPs for hull cleaning. Implementation of the new lower leach rate Cu AFPs alone is not adequate to achieve the water quality criterion in the larger marinas.

Comment 9.4

- The City requests that further data review and possible implementation schedule be aligned with the copper reductions from DPR's lower copper AFPs leach limits and the copper brake pad initiative, which will be implemented over the next seven years.The brake pad initiative should reduce copper in both the stormwater runoff and in aerial deposition. It would be appropriate for the compliance schedule (minimum percent reduction from AFPs) to be aligned with these two major policy changes. In addition, time is needed for logistical constraints; while the new paint limits for copper are now in effect, it will take time for older paints to phase out and newer paints to be used.

Response 9.4

The major source of Cu inputs to Newport Bay is Cu discharges from Cu AFPs on boats. Implementation of DPR's leach rate regulation for Cu AFPs will reduce Cu discharges to Newport Bay only if the Cu paints currently in use are higher than DPR's maximum allowable leach rate of 9.5 ug/cm2/d, and, as stated above, this regulation inherently includes the concurrent implementation of BMPs (see Responses to Comments 7 and 9.3). Implementation of the Copper Brake Pad legislation is expected to reduce Cu levels in tributary runoff but will have no effect on Cu discharges from Cu AFPs. The proposed TMDLs (and the Cu TMDLs established by USEPA in 2002) cannot be achieved without reductions in Cu discharges from Cu AFPs.

Comment 9.5

- The copper TMDL imposes unfunded state mandates on local agencies.

Response 9.5

This comment is appropriately raised with the Commission on State Mandates, and not the Santa Ana Water Board. If the commenter believes that the Cu TMDLs, when implemented, constitute unfunded mandates, the proper course of action would be to file a test claim with the Commission on State Mandates.

Moreover, the adoption of the Cu TMDLs will not impose an unfunded state mandate subject to subvention under Article XIII B, Section 6, of the California constitution. The Cu TMDLs are not unfunded state mandates that would be subject to subvention. The Cu TMDLs are not self-implementing and are not a new program or a higher level of service, the TMDLs are required by federal law, the TMDLs are applicable to all dischargers and not unique to municipalities, and municipalities may be able to levy fees or charges sufficient to cover costs associated with the implementation of the TMDLs. TMDLs are not self-implementing and do

not specify actions the City must take to achieve the TMDLs. Further, the adoption of these Cu TMDLs (or, in the alternative, the incorporation and implementation of USEPA's 2002 Cu TMDLs) is required by section 303(d) of the Clean Water Act and its implementing regulations to address the impairment for dissolved Cu in both Upper and Lower Newport Bay. Federal law requires the Regional Board to adopt TMDLs for Cu for Upper and Lower Newport Bay to correct Newport Bay's impaired status for Cu. The TMDLs are adopted solely pursuant to federal law and, therefore, do not represent a "true choice" to regulate above federal law requirements.

Comment 9.6

- The substitute environmental document fails to comply with the California Environmental Quality Act ("CEQA") and CEQA's implementing guidelines.

Response 9.6
The draft SED, initially distributed for comment in 2016, has been revised several times based on comments received in October 2016, August 2018, and August 2021, and consideration of additional policies and other relevant information. It meets the requirements of CEQA and CEQA's implementing regulations.

Comment 9.7

- However well intended, the revised Amendments seem flawed, preempted, and give substandard consideration to current conditions and technical analyses. Additionally, the information included in the attachments establishes there may in fact not be a copper impairment (either in the water or sediment), and that no implementation plan is necessary at this time.

Response 9.7
Santa Ana Water Board staff's Impairment Assessment, including the analysis of recent data provided by the City and DPR (see Response to Comment 1, above) demonstrates continued impairment of Upper and Lower Newport Bay due to dissolved Cu. We remind the City again that absent the Water Board's Cu TMDLs, the Cu TMDLs for the Bay established by USEPA must be implemented. The proposed Implementation Plan is both necessary and appropriate.

Comment 9.8

Again, we are providing this information in recognition of our strong history of collaboration with the Regional Board. Our continued commitment to evaluate and resolve water quality issues of concern is evidenced by our history of voluntary and cooperative efforts in the watershed. Specific to copper, these efforts include, but are not limited to:

- Contracting with (and funding) consultants to provide professional/technical assistance with research/testing/analysis to better understand and define any potential copper-related issues in Newport Bay.
- Conducting three independent harbor-wide water column sample tests for copper (July 2015, February 2016, and August 2019). With additional tests planned for

2022 and 2023 in partnership with DPR.

- Conducting five toxicity tests in areas of higher copper concentrations (all showed no toxicity).

- Conducting boat zone testing to better assess copper bottom paint leach rate concentration degradation.

- Visiting, observing and reviewing the experimental vessel skirt/vacuum hull bottom cleaning operation in Santa Cruz, California.

- Meeting with bottom paint applicators and shipyards to better understand available paints, application processes, re-application rates, and cost of copper and non-copper AFPs.

- Developing a web page to educate boat owners and provide updated copper water quality information.

- Currently assisting Regional Board staff with the vessel skirt/vacuum hull bottom cleaning pilot project at Balboa Yacht Basin in Newport Beach.

- Partnering with DPR to assist in bay-wide monitoring to better understand the effectiveness of the lower leach rate paints.

- Completing significant dredging efforts. Since 2010, and with your assistance and financing, there have been significant dredging efforts to remove sediments/legacy contaminants, and to improve flushing and circulation, thus improving the overall water quality of Newport Bay.

  a. Specifically, the City voluntarily dredged the Rhine Channel in 2011. This channel was deemed a "toxic hot spot" by the Regional Board who was heavily involved and supported the project.

  b. In 2012, the USACE, via a collaborative partnership with the City, along with City funds, dredged a significant portion of the Lower Harbor (about 600,000 cubic yards). An estimated 100,000 cubic yards of material was not suitable for ocean disposal, and therefore required alternate disposal at the Port of Long Beach - yet another effort to clean up and improve the harbor.

  c. In 2021, the USACE, via a collaborative partnership with the City, is now actively dredging the entrance channel area and portions of Balboa Beach. An estimated 125,000 cubic yards of material is being removed. Note, this work is currently ongoing.

d. In the near future (2022), the USACE, via a collaborative partnership with the City, along with City funds, will dredge an estimate 900,000 cubic yards of material and thereby further improve water quality in the harbor.

For these and other reasons, and to continue our history of working cooperatively, we again respectfully request that you and your Regional Board staff colleagues consider our recommendation that the Regional Board not adopt the Amendments on September 17, 2021. Additional time and stakeholder collaboration is needed to develop a feasible implementation plan that is informed by a thorough understanding of the effectiveness of current copper reduction measures.

Response 9.8
The City's efforts are recognized. As described in the Response to Comments 2 and 9.1, above, Santa Ana Water Board staff have worked collaboratively with the City and other dischargers and will continue to do so. Water Board staff provided the dischargers additional time to develop and propose a suitable implementation plan whereby the TMDLs will be achieved. That proposed implementation plan was submitted on January 28, 2022, but failed to articulate a workable plan whereby the TMDLs will be achieved. The City/County implementation plan and Water Board staff's response are included in Appendix B-5 of the draft SED 2022. See also Response to Comment 4, above.

We point out also that it is not necessary to provide additional time to develop and propose an implementation plan pending a more "thorough understanding of the effectiveness of current copper reduction measures." A proposed implementation plan can and should incorporate flexibility to adjust implementation efforts as results of current and future efforts are realized and evaluated.

Attachments to City's Letter *(Note: The City resubmitted four separate attachments identified as Attachments 1-4 that consist of its prior comment letters. Santa Ana Water Board staff have responded previously to all comments in these attachments. See Responses to 2016 Comments Document (2018); Responses to August 2018 Comments Document (2021). These are:*

- Attachment 1: City of Newport Beach's October 14, 2016, Comment Letter and Supporting Materials;

- Attachment 2: Comments for the 2018 version of the Revised Newport Bay Copper (Cu) TMDLs and Non-TMDL Action Plans for Zinc (Zn), Mercury (Hg), Arsenic(As), and Chromium (Cr) and Substitute Environmental Document

- Attachment 3: Response to City's comments for the Newport Bay Copper (Cu) TMDLs and Non-TMDL Action Plans for Zinc (Zn), Mercury (Hg), Arsenic (As), and Chromium (Cr)

- Attachment 4: City of Newport Beach's August 22, 2018, Comment Letter and Supporting Materials

  No additional response is provided for these Attachments 1-4.

  Following Attachment 4 at pages 288-304 of the City's letter is a document titled: "Review of Non-copper-based Alternative Antifouling Paints to Support Discussion on Implementation Strategies for Reducing Copper by Boat-Paint Conversions" (Memorandum to John Kappeler, Senior Engineer, City of Newport Beach, from Shelly Anghera, PhD and Bryce Corlett, PhD, Moffatt and Nichol, August 11, 2021)] *[As noted above, this Updated 2020 Review document was included following Attachment 4 but was not separately identified as Attachment 5. These four concerns identified in the Memorandum to John Kappeler are set forth below. The discussion in the memorandum on pages 290 through 304 is not included below but is considered in the response that follows.]*

  Boat owners, marina operators, marina owners, cities, counties, and other stakeholders have been advised to replace copper-based antifouling paints (AFPs) with non-copper nontoxic (i.e.,non-biocidal) AFP to meet water quality objectives. These discussions have been ongoing in Marina del Rey, Newport Bay, and Shelter Island. The City of Newport Beach and other stakeholders have maintained concerns from boaters that alternative nontoxic boat paints are not yet proven to be dependable alternatives. However, Regional Water Quality Control Board (RWQCB) staff continue to assert that alternative nontoxic AFP are readily available (Los Angeles RWQCB 2015; San Diego RWQCB 2005; Santa Ana RWQCB 2021).
  In response to the claims of readily-available non-biocidal paints, as well as the potential use of alternative biocidal AFPs, this memorandum reviews the findings of five studies commissioned by the USEPA, CalEPA Department of Toxic Substance Control (DTSC) and Washington Department of Ecology (Ecology) over the past decade. Together, these studies demonstrate continued concerns regarding the availability, proven effectiveness, and safety of alternative AFP.

  These concerns include the following:
  1. No single alternative AFP will work. One paint does not fit all vessel types, all environments (temperature ranges, seasons, types of fouling organisms) and boat owner needs/uses. The studies presented here suggest AFP effectiveness can vary from boat to boat, year to year, and place to place. The most supported non-biocidal paints currently available are Intersleek 900 (now Intersleek 1100SR) and Hempasil X3. However, these soft-non-biocidal paints may not be suitable for recreational boaters, as they were developed for large commercial vessels which operate at high speeds for long durations to slough off fouling organisms. Very few recreational boaters use their vessels at the frequency required to have the paints perform optimally. In addition, soft-non-biocidal paints are prone to damage and typically require professional application, making these paints expensive to apply and to care for.
  2. Boat Paint Formulations Are Constantly Changing. AFP brands and formulations are constantly changing, which contributes to the difficulty in gaining boater confidence in alternative AFPs. Not only are the formulas constantly changing, but new paints are constantly added to the market and old paints are frequently discontinued. Out of the six

alternative AFPs recommended in the reviewed studies, only one has not been discontinued or modified.

3. Non-Biocidal Paint Safety Has Not Been Confirmed. All AFP contain hazardous chemicals, and their safety to human health or other receptors in the environment has not been confirmed. The environmental safety of AFP formulations are currently difficult to determine, as AFP ingredients and safety information are often not disclosed due to proprietary rights, and inactive ingredients (which may have detrimental environmental effects) are not listed in mandatory disclosures. Furthermore, these paints are not regulated as biocides and, therefore, have not been tested to determine if high usage of these paints in enclosed waterbodies will result in water quality related impacts. Several of the best performing non-biocidal AFPs provide immediate concern as they contain a slime-resistant coating composed of fluoropolymers (e.g., Intersleek 1100SR). These compounds can bioaccumulate, and several are known to the State of California to cause reproductive toxicity in humans.[fn omitted] However, the leach rates and environmental impacts of fluoropolymer (e.g., PFOA/PFAS) compounds in the marine environment are unknown.

4. The State of Washington Has Delayed Halting Copper-Based AFP Because No Feasible, Reasonable and Readily-Available Alternative Paint Exists.

Due to findings of several studies, Ecology recommended the Washington State Legislature delay halting copper-based AFP until January 1, 2026, to allow for "feasible, reasonable, and readily-available" alternatives to copper-based AFP[s] (SSB 6210); this recommendation was accepted on June 30, 2020.

Response Att.5 – See Responses to City Comments 4 and 9.2, above. See also Responses to G. Newmark comments 6, and L.1.1.c., below. In brief, the conversion of boats from Cu AFPs to non-biocide AFPs is one potential strategy to reduce Cu discharges from Cu AFPs to the Bay; it is a recommended strategy, not a required one. The proposed TMDLs do not require these conversions. Other strategies include the use of BMPs for hull cleaning and the use of other BMPs such as dry docking, slip liners, boat floats. Pursuant to the proposed TMDLs, the City (and County and other dischargers) are required to submit their own proposed implementation plan(s) to reduce Cu discharges from Cu AFPs. Such strategies may take into account changing paint formulations and boater confidence considerations. Issues of changing paint formulation and boater confidence must be considered in any event as the result of DPR's recent maximum leach rate determination for Cu AFPs, and the need for boaters to switch to a lower leach rate Cu AFP may involve the use of new formulations for Cu AFPs. It is acknowledged that there are few environmental studies on the effects of non-biocide paints on aquatic organisms, so their impacts on the environment are speculative. Nevertheless, in its 2019 report to the Legislature ("Antifouling Paints in Washington State Report and Recommendations- Report to the Legislature Pursuant to SHB 2634 (2018), September 2019, Publication 19-04-020*), the State of Washington Department of Ecology identified a number of alternatives that are safer to use than Cu or other biocide AFPs. These include some non- biocide AFPs, as well as using boat lifts and other "dry dock"-like fouling avoidance options.*

- Attachment 6: 2019 Dissolved Copper Data Summary [MAP]

Gregory Newmark, Meyers Nave (attorney for City of Newport Beach)

Letter from Gregory Newmark (Meyers/Nave) dated August 27, 2021, regarding "City of Newport Beach Supplemental Comments on Proposed Basin Plan Amendments to Incorporate Total Maximum Daily Loads (TMDLs) for Copper(Cu) in Newport Bay"

[Comment 1] - The Regional Board and interested parties have evaluated copper levels in Newport Bay for many years. Much of the bay is in compliance with criteria the Regional Board is applying, particularly those areas that receive significant flushing and tidal influence and, even in areaswhere copper levels are elevated above criteria, there is no evidence of aquatic toxicity. (See May 9-10 2019 Workshop Comment 2 of Chris Miller, City of Newport Beach, and Comment 3 of Dr. Susan Paulsen, Exponent.) Whether compliant results are obtained depends on where one measures, the amount of circulation and flushing, and the tidal influence.

Response 1 – Impairment assessments of Newport Bay, conducted pursuant to the State Listing Policy (SLP) demonstrate that the Bay is impaired as the result of dissolved copper (Cu). The SLP does not require evidence of aquatic toxicity to make a determination of impairment. While some parts of the Bay may be in compliance, overall the Bay is still impaired for Cu. Implementation efforts to meet the Cu TMDLs can and should focus on areas of the Bay where non-compliance with the CTR criteria is most evident.

[Comment 2] - The Regional Board points to certain areas of non-compliance relying largely on data summarized in a 2016 Staff Report and a 2014-2016 impaired water list. Copper levels in the Newport Bay have been tested and compared to levels listed in the California Toxics Rule ("CTR"); however, a site-specific copper limit has not been developed using a water effects ratio ("WER") that reflects the bay's water chemistry and species adaptation. (40 Instead, the Regional Board has been referring to the 3.1 micrograms per liter ("µg/L") CTR value listed in 40 C.F.R. section 131.38 without calculating and applying the WER and without obtaining a four-day average of copper levels as required by the rule.

Response 2 –The data sets that Santa Ana Water Board staff have evaluated to assess impairment include data as recent as 2019. See Section 4.4 Newer Cu Data (Staff Report 2022 -Appendix A to the draft Substitute Environmental Document 2022 (SED)). The CTR provides for, but does not require, the development of a Water Effects Ratio (WER). The proposed schedule for the Cu TMDLs allows the City (and other dischargers) to pursue a WER if they choose to do so. If a WER is developed and approved, the TMDL requirements would be adjusted based on the new WER.

[Comment 3] - A series of regulatory activities at the state and federal level are relevant to the proposed TMDL. At the state level, on July 1, 2018, the California Department of Pesticide Regulation ("DPR") promulgated a regulation for a maximum allowable leach rate for Cu AFPs. In the summer of 2019, DPR (partnering with the City) conducted

monitoring in Lower Newport Bay to determine the efficacy of the low-leach Cu AFPs and found dissolved Cu concentrations ranged from 1.49 to 6.02 µg/L. Half of DPR's 16 isolated samples exceeded the 3.1 µg/L CTR value listed in 40 C.F.R. section 131.38 but further evaluation is needed once a CTR limit for Newport Bay is determined based on WER and other regulatory calculations.

Response 3 – The results of DPR's monitoring in 2019 demonstrated water column impairment of Newport Bay due to dissolved Cu based on the CTR chronic criterion of 3.1 µg/L (see Staff Report 2022). Note that USEPA, the agency that developed and established the CTR (USEPA 2000), supports the adoption of these proposed Cu TMDLs, with certain minor revisions to the TMDLs not related to the comment above (see August 26, 2021 comment letter from USEPA Region 9, above). Clearly, USEPA does not find the lack of a WER at this time an impediment to conducting an impairment assessment or to moving forward with the proposed TMDLs. The proposed TMDLs allow for a WER to be developed by the dischargers and WER-adjusted Cu criteria to be determined.

[Comment 4] - At the federal level, Congress has charged USEPA with establishing environmentally sound standards that address fouling and other discharges incidental to the normal operation of vessels under the federal Vessel Incidental Discharge Act ("VIDA"), 33 U.S.C. §§1311, 1314, 1317, 1322, 1361. Less than 10 months ago, EPA proposed regulations under VIDA toaddress antifouling and in-water cleaning and capture ("IWCC") system discharges for vessels that are 79 feet or greater in length. In November 2020, both the State Water Resources Control Board ("SWRCB") and the SLC opposed USEPA's proposed regulations as not stringent enough. Based thereon, time is needed to determine how the proposed VIDA regulations and the Copper TMDL measures can be harmonized.

Response 4 – The proposed Cu TMDLs address the requisite TMDL elements per federal regulations established by USEPA. There is no legal or practical rationale for awaiting the development of VIDA regulations to consider adoption of the TMDLs. Note that USEPA has not found it necessary to await final VIDA requirements and has indicated the Agency's support for Santa Ana Water Board adoption of these proposed Cu TMDLs, with minor recommendations not relevant to VIDA (see August 26, 2021 comment letter from USEPA Region 9, above). Pending the development of the VIDA regulations, commercial vessels 79 feet or greater in length continue to be regulated under the Vessel General Permit (VGP), which incorporates water quality certification requirements imposed by the State Water Board (Order for Clean Water Act Section 401 Water Quality Certification for U.S. Environmental Protection Agency Vessel General Permit, August 27, 2012). These certification requirements include the requirement that "Vessel discharges must comply with applicable statewide water quality control plans and Basin Plans" (See VGP 6.4.12). USEPA issued the proposed rule to establish national performance standards under VIDA (85 Fed. Reg. 67818). Public comments were submitted requesting revisions of the proposed rule, but no rule has yet been finalized. The U.S. Coast Guard (USCG) has not yet issued a proposed rule for implementation, enforcement and compliance

under VIDA. At this time, the Santa Ana Water Board does not know when the VGP and the State Water Board's Section 401 Water Quality Certification will be repealed and what details will be contained in final USEPA rule or the USCG implementation regulations. Depending on the details in the final rules, it may be appropriate to consider revisions to the implementation plan for the TMDLs, but it is speculative to predict the outcome of the final agency rules.

[Comment 5] – "Since copper discharges from boats are the largest source of Cu in Newport Bay, the highest priority of the proposed Cu TMDLs Implementation Plan is to **reduce or eliminate** Cu discharges from Cu AFPs". The Implementation Plan identifies a number of strategies that shall be considered by the dischargers. "The implementation plan(s) ***shall consider*** strategies to:

> 1) Convert boats from current Cu AFPs to lower leach rate Cu AFPs or non-biocide AFPs/coatings ..... The order of ***use*** preference for alternative
> AFPs/coatings is: 1.1) Cu AFPs with leach rates at or below 9.5 µg/cm^2/d . . . ,1.2) non-biocide AFPs/coatings, 1.3) non-Cu biocide AFPs (***The conversion of Cu AFPs to non-Cu biocide AFPs is not recommended***.)Recommended BMPs for hull cleaning, and label use recommendations should be followed for these paints (see 1.2.1 above);
>
> 2) Require new boats to ***use*** lower leach rate Cu AFPs (DPR's regulation -leach rates at or below 9.5 µg/cm2/d) or non-biocide AFPs/coatings.
> Recommended BMPs for hull cleaning, and label ***use recommendations*** should be followed for these paints (see 1.2.1 above). (The use of non-Cu biocide AFPs is not recommended;
>
> 3) Determine the Cu AFPs currently in use and Cu discharges to the Bay fromthose Cu AFPs, especially for commercial vessels.
>
> 4) Provide controls/incentives for marina owner/operators, and individual boatowners in marina leases, permits, or other mechanisms, such as the required use of BMPs and/or the use of incentives to boaters who convert to lower leach rate Cu AFPs or non-biocide AFPs.

(BPA Att. A. at p. 15, emphasis added.) Clearly, the Copper TMDL expressly requires reduction or elimination of copper from Cu AFPs, and the only way to eliminate the copper from Cu AFPs is to eliminate the use of the registered pesticides that are relied upon for antifouling. Further, Attachment A to the Staff report instructs that conversion to non-Cu biocide AFPs is not recommended, and, therefore, the Regional Board is using the TMDL process to recommend non-biocide AFPs as substitutes for Cu AFPs. Based thereon, the Regional Board is proposing to regulate the use of registered pesticides, which is unlawful."

Response 5 – First, the premise of this comment is incorrect. The proposed TMDLs require the reduction of Cu discharges from Cu AFPs. A 60% reduction of those discharges is required to achieve the TMDLs. While elimination of these discharges would be desirable and consistent with the goals of the Clean Water Act and implementing regulations to eliminate pollutant discharges to waters of the United States such as Newport Bay (see CWA, section 101(a)(1)), the proposed Cu TMDLs do not explicitly require (or expect) the elimination of the Cu AFP discharges. The phrase "or eliminate" referenced above has been removed in response to this comment.

The proposed Implementation Plan is shown in the Basin Plan Amendment (Attachment A to the tentative Resolution rather than the Staff Report, as stated in the comment. The proposed Implementation Plan is also delineated in the Staff Report 2022). The proposed Implementation Plan identifies a number of strategies whereby the 60% reduction of Cu discharges may be achieved (including the use of soft cloths during hull cleaning and other BMPs) and requires that the dischargers consider these strategies in the development of their proposed implementation plans to achieve the TMDLs. The dischargers are required to submit their proposed implementation plans for approval by the Regional Water Board and to implement the plans upon approval. This comment misconstrues the nature of the proposed Implementation Plan requirements as a mandate to implement conversions from Cu to alternative AFPs, and, based on this misrepresentation, incorrectly concludes that the Santa Ana Water Board is attempting to regulate or require the City or County to regulate the use of registered pesticides.

[Comment 6] - In contrast to the Regional Board, USEPA has found that there are no current safe substitutes for Cu AFPs. "[D]espite the potential impacts of copper-based coatings, ***there is a concern that replacement of copper with other biocides may cause different, and potentially more harmful, environmental impacts. EPA determined that there are no direct substitutions for copper as a biocide*** that are as affordable or as effective, without posing similar risks to non-target aquatic species (U.S. EPA, 2018). As such, EPA is not proposing to require the selection of an alternative antifouling coating to copper antifouling coating for vessels." (85 Fed. Reg. 67818, 67867 (Oct. 26, 2020) [emphasis added].) USEPA implicitly recognizes the need for *effective* pesticides, whereas the Regional Board has not. (See e.g., Regional Board July 12, 2021 responses at pp. 14-15 stating: "The use of non-biocide paints does not have boater confidence yet. . . .")

Response 6 – The Rule proposed by USEPA on October 26, 2020, to establish Vessel Discharge National Standards of Performance (85 FR 67818. October 26, 2020), would apply generally to commercial vessels 79 feet or greater in length and not to recreational vessels. While USEPA has determined that there are no direct substitutions for Cu that are as affordable or effective biocides without posing environmental risks similar to those of Cu AFPs, USEPA also acknowledges that "Multiple types of coatings [AFPs] are available for use, including hard, controlled depletion or ablative, self-polishing copolymer and fouling release coatings.

Coatings may employ physical, biological, chemical, or a combination of controls to reduce biofouling" (85 FR 67818, at 67867). USEPA also recognizes that there are operational profile factors of the vessels to be addressed by the proposed Rule and that these factors can influence biofouling accumulation rates. These factors include typical vessel speed, aquatic environments traversed, type of surface painted, expected periods of inactivity, etc. (85 FR 67818, at 67868). USEPA explicitly recognizes that non-biocidal coatings are available, and that "vessels that typically operate at high speeds may effectively manage biofouling with fouling release coatings [i.e. non-biocide AFPs]. Additionally, vessels traveling in waters with lower biofouling pressure and those that spend less time at dock are expected to have a lower biofouling rate and should select either non-biocidal coating or coatings with low biocide discharge rates. However, these coatings may not be suitable for all operational profiles." In short, while USEPA recognizes that Cu AFPs are effective AFPs, USEPA also acknowledges, and in fact recommends, the use of other types of AFPs, including non-biocidal AFPs, based on the operational profile of the vessel. While the commenter is correct that USEPA does not require the use of alternative coatings, the proposed regulatory language nonetheless specifies, "Alternatives to copper-based coatings must be considered for vessels spending 30 or more days per year in a copper-impaired waterbody or using these waters as their home port." (85 FR 67818, p. 67889 (proposed regulation section 139.22(b)(6).)

Also see Response to G. Newmark's Comment 5, above. Per Santa Ana Water Board staff's proposed Implementation Plan for the Cu TMDLs, the dischargers are required to consider the use of alternative paints, such as non-biocide AFPs, as a strategy to meet the TMDLs; however, the TMDLs do not require the use of alternative AFPs. The Santa Ana Water Board has recognized the importance of taking measures to prevent fouling of boat hulls (see SED, discussion of Biological Resources, a)). This may be accomplished by the use of alternative paints that rely on physical characteristics of the formulations, rather than Cu or other biocides to prevent fouling, and/or more frequent hull cleaning. To assert that the Santa Ana Water Board has not recognized the need for effective pesticides because of the recognition that non-biocide paints do not have boater confidence yet is a non sequitur.

Finally, it is important to note that for commercial vessels 79 feet or greater in length, the proposed regulations would specify "In-water cleaning of any copper-based hull coatings is prohibited in a copper-impaired waterbody within the first 365 days after application, unless a [in water cleaning and capture] system consistent with paragraph (c)(2)(ii) of this section is used." (See 85 FR 67818, p. 67889 proposed regulation 40 CFR section 139.22(c)(6).)

LEGAL COMMENTS

In summary, we found that despite the 2021 revisions to the Staff Report and SED, the Copper TMDL and its supporting documents still suffer from major legal deficiencies. ***First***, the proposed TMDL still unlawfully fails to heed the Legislative prohibition against local governments attempting to regulate the sale and use of registered pesticides.

Second, since the City cannot lawfully control the use of registered pesticides, it has no control over the primary pollutant loading mechanism and is therefore not properly considered a discharger. ***Third***, the deletion of the State Lands Commission from the list of dischargers continues to be arbitrary when the City was originally identified as a discharger for the same reasons. ***Fourth***, the Regional Board's implementation schedule still fails to provide sufficient time and continues to be unsupported. ***Fifth***, the Regional Board's CTR and TMDL evaluations fall short of regulatory requirements. ***Sixth,*** the SED does not satisfy requirements of the California Environmental Quality Act. For all these reasons, the CopperTMDL cannot be adopted in compliance with the law.

General Response: While more detailed responses to these comments are provided below, as acknowledged in G. Newmark's letter, many of these points have been raised previously by G. Newmark on behalf of the City. Santa Ana Water Board staff have responded extensively to these prior comments in Responses to Comments documents distributed in 2018 and 2021.

I. [Comment L1] The Copper TMDL Still Requires Unlawful City Regulation of RegisteredPesticides and now Poses Potential Conflicts with Proposed Federal Rules

Like all prior versions, the current revised Copper TMDL documents attempt to conceal the fact that, if adopted, the Regional Board will be requiring the City to regulate the sale and/or use of registered pesticides, which is prohibited by state law. The proposed Copper TMDL also raises concerns related to the recent regulations USEPA has proposed under VIDA for antifouling.

[Comment L1.1]

A. Unlawful City Regulation of Registered Pesticides

Comment L.1.1.a. The Regional Board's responses to our prior comments reflect a continued reliance on the City to become involved in regulation of Cu AFP, a registered pesticide. On July 12, 2021, the Regional Board provided responses to comments ("2021 RTC") for the comments that we previously submitted on August 24, 2018. The 2021 RTC frequently cross references and incorporates the Regional Board's September 29, 2018 responses to comments we submitted on October 14, 2016 ("2018 RTC").[2]

The 2021 RTC states that "boat conversions to non-biocide AFPs are a recommended strategy to reduce Cu discharges from Cu AFPs; the dischargers are required to consider this strategy, but this task is not required to be one of the dischargers' strategies to achieve the TMDLs." (2021 RTC at p. 5.) Yet, these actions are required. First, it is not possible to achieve the limits in the proposed TMDL without eliminating or reducing the use of lawful Cu AFPs, and the Regional Board's administrative record reflects this consistently. Specifically, page 52 of the 2021 RTC incorporates the 2018 RTC, which in part refers to the board's response to comment 5.2. There, the Regional Board states: "[C]ompliance with the Copper TMDLs may be

achieved, at least partially, by strategies other than, ***or in addition to***,the conversion to alternative AFPs." (2018 RTC at p. 5, emphasis added.) Stated differently, compliance with the Copper TMDL will be fully achieved only when the regulated community converts from Cu AFPs – which 90 percent of the community is relying upon for effective and necessary antifouling. Compliance is not possible without banning a pesticide that the DPR, FIFRA and EPA have approved. Indeed, only months ago in October 2020, USEPA considered and rejected the idea of converting from Cu AFPs at this time. (85 Fed. Reg. at p. 67867 [explaining that EPA is not proposing alternative antifouling coating to copper antifouling coating.].)

Response L1.1.a - Boat conversions to alternative AFPs are not <u>required</u> by the proposed Cu TMDLs and conversion by the entire boating community is not viewed as necessary to achieve the required reductions. Rather, these conversions are a potential TMDL compliance strategy that is to be considered by the dischargers in developing their proposed implementation plans in conjunction with other efforts to reduce Cu discharges. While conversion to alternative AFPs by some boats may be necessary, combined with other measures, to achieve required reductions, it is not anticipated that the entire boating community will need to convert to alternative AFPs in order to achieve necessary reductions. Consistent with this position, instances of the word "eliminate"/"eliminated" in proposed BPA language and Staff Report references have been removed since the proposed Cu TMDLs will effectively require reductions, but not the elimination, of discharges from Cu AFPs. The assertion that " it is not possible to achieve the limits in the proposed TMDL without eliminating or reducing the use of lawful Cu AFPs" *is not substantiated, nor is the assertion that* "[C]ompliance is not possible without banning a pesticide that the DPR, FIFRA and EPA have approved"*. These assertions contradict repeated arguments by the City of Newport Beach that no further action on the Cu TMDLs should take place pending the evaluation of results of the implementation of the Department of Pesticide Regulation's (DPR's) leach rate regulation for Cu AFPs. In other words, the City itself anticipates that the use of lower Cu leach rate paints approved by DPR may be sufficient to achieve the TMDLs and thus the dissolved Cu CTR chronic criterion, particularly since, the City asserts, the Bay is now at or close to compliance with the CTR chronic criterion of 3.1 µg/L. (See Response to the City's Comment 7, above). See also responses to G Newmark's comments in the Responses to 2016 Comments document (2018): for example, Responses 1.1 and 1.2, p. 56-57; Response 7.1, p. 59; Response 7.4, p. 63.*

Comment L.1.1.b. Based on the foregoing, the Regional Board continues to intend to require that the City undertake what USEPA refuses to do, namely to ban pesticides that vessels need to address fouling, which the SLC itself has concluded threatens the state environment, economy, and human health. (SLC Nov. 25, 2020 Comments to USEPA on proposed VIDA Regulations at p.1.) Even if the City could do so, state law prohibits it. Food and Agriculture Code section 11501.1, subdivision (a), forbids any action by local government to "prohibit or in *any way attempt* to regulate *any matter relating to* the registration, sale, transportation, *or use* of pesticides . . . ." (Emphasis added.) The Regional Board appears to believe its "incentive" approach is

a way to skirt the preemption issue the City has identified. The Legislature could hardly have written its preemption language to sweep more broadly. The Regional Board's suggestion that "incentives" to influence the sale and use of registered pesticides constitutes a loophole that can subvert the Legislature's intent is wholly without merit.

Response L1.1.b - The proposed Cu TMDLs do not require or even anticipate that the City or other responsible parties will ban copper antifouling paints. Nor does the Water Board require or anticipate the City will take actions that contravene Food and Agriculture Code section 11501.1 (Section 11501.1.) First, section 11501.1 is not "a limitation on the authority of a state agency or department to administer or enforce any law that the agency or department is required to enforce or administer." The Regional Water Board has the authority and responsibility to address waste discharges of Cu resulting from the use of Cu AFPs. (See, for example, Water Code, §§ 13262, 13304.) The Water Board also has the authority to adopt the proposed Cu TMDLs. (See Water Code §§ 13240, 13242; U.S.C. § 1313(d).)

Second, the proposed Cu TMDLs address the discharges of Cu and do not require or recommend that the City or other dischargers prohibit or attempt to regulate the sale, transportation or use of registered pesticides in contravention of Section 11501.1, subdivision (a). If adopted, the proposed Cu TMDLs would require the City and other dischargers to develop and implement a plan(s) to achieve the Cu TMDLs by achieving reductions in the discharge of Cu from AFPs. The Cu TMDLs include recommended strategies to reduce Cu discharges that the responsible parties must consider in developing their implementation plan(s). The recommended strategies include encouraging or requiring the use of BMPs during hull cleaning in marinas under the City's control, consideration of incentives in marina leases and other measures for boaters to convert to lower leach rate Cu AFPs or non-biocide paints, diver education/certification, and boater and boatyard education programs. None of these efforts, including encouraging boat owners to convert to alternative paints, prohibits or regulates the use of Cu AFPs. The Santa Ana Water Board does not anticipate that implementation of the TMDLs will require the City to take any steps that DPR would prohibit under Section 11501.1. The Water Board has not suggested that incentives for conversions to alternative paints constitutes any type of "loophole", let alone one intended to subvert legislative intent. In DPR's Determination of Maximum Allowable Leach Rate for Cu AFPs, DPR recommended mitigation measures, including the use of BMPs for hull cleaning that are inherently built into DPR's maximum allowable leach rate and therefore should be implemented with the use of these lower leach rate Cu AFPs. One of the recommended mitigation measures is the use of incentives to boaters to convert boats painted with Cu AFPs to alternative paints. DPR contemplated that TMDL dischargers would be the primary parties involved with the use of such incentives. See also DPR's Final Decision Concerning Reevaluation of Copper Based Antifouling Paint Pesticides (CA Notice 2018-03), and Response to Comment 9-1 above.

See also Responses to comment G. Newmark's Comments in the Responses to 2016

Comments document (2018): Responses 7.1 through 7.4, pp. 59-63, and see Response to the City's Comment 2, above, identifying the City's 2010-53 Resolution "Endorsing a Program to Encourage the Use of Copper-Free Boat Bottom Paints" as well as environmental rules and regulations on the City of Newport Beach's website encouraging boat owners not to use copper paints and recommending measures consistent with those identified in the proposed TMDLs for discharger consideration (current as of August 12, 2022, Harbor Rules and Regulations | City of Newport Beach (newportbeachca.gov)

Comment L1.1.c. Reliable, safe, and cost-effective alternatives to Cu AFPs do not exist. USEPA implicitly recognizes need for *effective* pesticides, whereas the Regional Board has conceded that substitute coatings are not as effective and thus undermines the pesticide program. (See e.g.,Regional Board July 12, 2021 responses at pp. 14-15 stating: "The use of non-biocide paints does not have boater confidence yet. . ."[I]it's true that there are few studies regarding the extent of potential human health and environmental effects of non-biocide AFPs. . .")

Response L1.1.c – See Response to G. Newmark's Comment 6, above. USEPA itself recognizes the availability of alternative AFPs and recommends their use, rather than Cu AFPs, based on the operational profile of the vessel, and in the proposed VIDA rule requires consideration of alternative coatings for large commercial boats spending 30 or may days per year, or whose home port is, a copper-impaired water body. (85 FR 67818, p. 67889.) Again, pursuant to the proposed Cu TMDLs Implementation Plan, the dischargers are required to consider the conversion of Cu AFPs to alternative AFPs, and whether such paints are reliable, safe, and cost-effective. Alternative AFPs have been identified and are in use in Shelter Island Yacht Basin (in San Diego Bay). Where appropriate, the dischargers may elect to include conversions from Cu AFPs to alternative AFPs in their proposed strategies to achieve the TMDLs. See also Response to the City's Comment 9.2., above. The State of Washington Department of Ecology recommends the use of environmentally safer alternatives to Cu and other biocide AFPs, including boat lifts and other "dry-dock" approaches, as well as the use of non-biocide AFPs, to address fouling on boat hulls.

Note that while non-biocide coatings will likely not be as effective as Cu AFPs at reducing fouling, these paints may be a suitable substitute provided that boat hulls are cleaned frequently (see also Response to G. Newmark's Comment 6, above). Again, the proposed TMDLs do not require conversions to alternative Cu AFPs.

Comment L1.1.d Over time, antifouling coatings have undergone change, from tributyltin, or TBT, which was banned by Clean Hull Act of 2009, to copper and now to other potential substitutions. In 2018, we provided an August 19, 2018 report, which identified the impracticalities of substituting Cu AFPs in the current marketplace and discussed a number of changes that must first occur to effect industry-wide movement to alternate AFPs/coatings that are safer than, and equally efficacious to, Cu AFPs. We urged the Regional Board to consider, as USEPA now has, the dangers of forcing a "regrettable substitution," and causing new environmental problems with its

proposed regulation. Now, consistent with what Dr. Whittaker concluded in the August 19, 2018 report, we again have identified "**zero** commercially available non-Cu AFPs that are safer and perform as well as Cu AFPs."

Response L1.1.d - The proposed TMDLs do not "force" a substitution for Cu AFPs. See preceding Responses to G. Newmark's Comments L.1.1.a and b, above.

Comment L1.1.e. Indeed, attached hereto as Attachment A is an August 4, 2021 report that found that of the alternative paints tested, three contained high levels of per- and polyfluoroalkyl substances ("PFASs"). Only CeRam-Kote 54 SST did not have detectable concentrations greater than 400 nanograms per liter ("ng/L") to 50,000 ng/L for specific PFAS products. PFAS chemicals may have been present at concentrations below the detection limit. The Regional Board is well aware of the human health threats associated with PFAS based on statewide efforts presented at the waterboards.ca.gov PFAS Webpage. Public health activists are advocating a society-wide ban on the use of these so-called "forever chemicals," the most harmful of which include perfluorooctanoic acid ("PFOA") and perfluorooctanesulfonic acid ("PFOS"). PFOA was detected at high levels in one of the alternative AFPs tested, namely ine-Paint. PFAS are linked to liver damage, cancer, and a wide range of adverse health effects,according to the SWRCB.
https://www.waterboards.ca.gov/pfas/

Response L1.1.e – See preceding Responses to G. Newmark's Comments L1.1.a and b, above. The proposed TMDLs do not require conversions to alternative AFPs.

[Comment L1.2]

B. The Proposed Copper TMDL Conflicts with proposed VIDA Regulations that the SLC and SWRCB Contend are not Stringent Enough; Commercial Vessels could be Regulated under VIDA Less Stringently than Recreational Vessels under the Copper TMDL

[Comment L.1.2.a.]

In addition to the preemption issue, PFAS, and other concerns raised above, the proposed Copper TMDL conflicts with USEPA's proposed antifouling regulations for commercial vessels subject to VIDA. Indeed, both the SLC and SWRCB believe that USEPA's uniform federal standards are not stringent enough and both acknowledge VIDA preempts contrary state regulations. (See also Staff Report at p. 86.) If proposed federal standards are less stringent and if both the Copper TMDL and VIDA regulations are promulgated, then it is quite possible that smaller recreational boats would become subject to regulatory standards that are more stringent than the standards commercial vessels are subject to under VIDA. To avoid this result, the Regional Board should instead harmonize its proposed measures with those USEPA is developing under the proposed VIDA regulations related to antifouling measures.

Response L1.2.a – The proposed TMDLs include an allocation for Cu AFP discharges from commercial vessels 79 feet or greater in length that are now subject to the 2013 Vessel General Permit (VGP) and the State Water Board's 401 Water Quality Certification conditions. The VGP provides NPDES coverage for discharges from copper antifouling paints for commercial vessels 79 feet or greater in length. Once both USEPA's and the U.S. Coast Guard's (USCG) regulations under VIDA are finalized, these discharges will be subject to VIDA instead and the USCG will be primarily responsible for regulating discharges (including from copper antifouling paints) from large non-fishing commercial vessels.
http://water.epa.gov/lawsregs/lawsguidance/cwa/vessel/CBA/about.cfm

The allocation for large commercial vessels was calculated using DPR's maximum allowable leach rate for Cu AFPs (9.5 µg/cm^2/d), which is the same leach rate used for the calculation of the recreational boat allocation. Discharges of Cu antifouling paints from recreational, commercial fishing vessels and commercial vessels less than 79 feet in length are exempt from VIDA and subject to regulation by the State under state law authorities such as waste discharge requirements.

Upon approval, the proposed TMDLs will become part of the Basin Plan for the Santa Ana Region. Compliance with the Basin Plan, and thus the TMDLs (including allocations for commercial and recreational boats), will be implemented through the existing VGP and State Water Board Section 401 Water Quality Certification. See also Response to G. Newmark's Comment 4, above. Once VIDA regulations being developed by the USCG and the USEPA are final, the Santa Ana Water Board can consider whether any reevaluation of the Copper TMDLs is necessary.

[Comment L.1.2.b.]

As drafted, some of the measures that the Regional Board is proposing in the Copper TMDL are contrary to USEPA recommendations under VIDA. For example, the Regional Board desires less frequent cleaning of boat hulls (BPA Att. A, at p. 13) whereas "EPA is proposing that vessel hulls and niche areas must be cleaned regularly to minimize biofouling." (Proposed regulation 40 C.F.R. §139.22(c).) Also, the new proposed regulations set forth detailed IWCC systems that must be evaluated for consistency with the Copper TMDL best management practices for cleaning and capture.

Response L.1.2.b- See Response to G. Newmark's Comment 4, above. Note that less frequent cleaning of boat hulls painted with Cu AFPs is one of the recommended mitigation measures identified by DPR in their maximum leach rate determination for Cu AFPs. More frequent cleaning will likely be necessary to reduce fouling if non-biocide AFPs are used in place of Cu AFPs.

[Comment L.1.2.c.]

Under the proposed VIDA regulations, the federal Vessel General Permit will mandate that all antifouling coatings be applied, maintained, and removed consistent with the FIFRA label, if applicable. (85 Fed. Reg. 67818, at p. 67829.) This approach is consistent with the preemption issues we raise above for state laws administered by DPR. Moreover, in California, a 2013 Vessel General Permit ("VGP") regulates discharges incidental to the normal operation of commercial vessels. If USEPA's VIDA regulations are finalized, the state's VGP will fundamentally change and govern some of the discharges the proposed Copper TMDL seeks to regulate from commercial vessels.

Time is needed to evaluate how the proposed USEPA VIDA regulations and amended VGP will affect the Copper TMDL best management practices related to application, maintenance,and removal of Cu AFPs.

Response L.1.2.c - The assertion that there is a California 2013 Vessel General Permit is incorrect. The 2013 Vessel General Permit was issued by USEPA under the federal NPDES permit program (85 Fed. Reg. 67818-01) and the State Water Board issued a CWA section 401 water quality certification for the VGP. Commercial vessels less than 79 feet in length are not covered by the VGP and the State Water Board's 401 Certification. Once the regulations required by VIDA are final and effective, the 2013 VGP and the water quality certification will be repealed. Under VIDA, the USCG will be primarily responsible for regulating discharges incidental to operation of large commercial vessels, but this does not preempt State regulation of Cu AFP discharges from recreational vessels and most commercial vessels less than 79 feet in length as well as commercial fishing vessels. See Response to G. Newmark's Comment 4, above.

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II. [Comment L2] The City is Not a Discharger

[Comment L2.a]

The Regional Board's continues to assume, incorrectly, that the City is a discharger of Cu AFP, and, therefore, the Copper TMDL and its Implementation Plan are based upon incorrect assumptions. The Regional Board contends the City is a discharger in this regard because theCity has been delegated authority over certain tidelands: "The City and County thereby have the ability to exert control over Cu discharges from Cu AFPs due to passive leaching from boat hulls and/or hull cleaning activities." If it were true that the City could regulate the sale and use of Cu AFP, then the Regional Board's position would arguably be consistent with State Water Resources Control Board decisions. (See, e.g., *In the Matter of Petition of San Diego Unified Port District*, State Water Resources Control Board Order No. WQ 89-12, p. 6["This Board has consistently taken the position that a landowner who has knowledge of the activity taking place ***and has the ability to control the activity***, has "permitted" the discharge within the meaning of Section 13304."] (Emphasis added).) Since the state Department of Motor Vehicles requires registration of boats and vessels, DMV also

has the ability to control activity. Indeed, it has more control than the City over boat and vessel equipment and maintenance because of this registration program..

As previously demonstrated, however, the City lacks control over the sale, use and transportation of Cu AFP because the Legislature occupies the entire field of such regulation.The Regional Board has no basis in law or fact to contend that the City is a discharger. The City's administration of certain tidelands does not change this conclusion. The Regional Board's assumptions to the contrary are incorrect, and the Copper TMDL and its Implementation Plan are fundamentally flawed. Further, even if the City had control, the ordinary use of a pesticide product by parties other than the City does not constitute discharge of a waste. (*Ecological Rights Found. v. Pac. Gas & Elec. Co.* (9th Cir. 2013) 713F.3d 502, 514.) Water Code section 13050 defines waste to include sewage and "waste substance" but does not capture useful products like Cu AFP. The use of products is not a waste, particularly now that USEPA has clarified the lack of viable safe alternatives. (85 Fed.Reg. at p. 67867 [stating that EPA has "determined that there are no direct substitutions for copper as a biocide that are as affordable or as effective, without posing similar risks to non- target aquatic species (U.S. EPA, 2018)."].)

In the 2021 RTC, the Regional Board continues to contend the City is responsible as a discharger of waste related to the legal use of registered pesticides. The Regional Board claims that the City is a discharger based on its authority over the tidelands, knowledge copper is being discharged from Cu AFPs, and ability to control the discharge. The Regional Board believes the City can require hull cleaning BMPs in lease agreements or in marina regulations, require diver certification for hull cleaning, and incentivize the conversion to non-biocide AFPs and lower leach rate Cu AFPs. Even if these actions could be undertaken,full compliance could never be achieved without the City controlling the use of Cu AFPs, which it cannot do.

Response L.2.a - First, a series of State Water Resources Control Board (State Water Board) decisions established criteria for determining landowner liability: (1) ownership of the land on which an activity occurs that results in the discharge of waste; (2) knowledge of the activity causing the discharge, and (3) the ability to control the activity. (See e.g., State Water Board Order Nos. WQ 87-5, 86-18, 86-15, 86-11, 84-6, 90-03.) The City references State Water Board Order No. 89-12 (In the Matter of Petition of San Diego Unified Port District), to support its argument that it lacks requisite control but does not recognize the factual similarities in that order which supported finding that the San Diego Unified Port District (Port) had the ability to control the discharges at issue as a landowner. As a landowner with leasing authority, the Port, like the City here, functioned as a landlord in executing the lease at issue. The Port District also owned a portion of the tidelands adjacent to the terminal. The ability to control a discharge can be reflected in the ability to include provisions in leases executed with tenants designed to reduce discharges of copper from copper AFPs. (See e.g., State Water Board Order No. 89-12, e.g., pp. 6-8) The City can take steps to control discharges of copper to Newport Bay without prohibiting the use of copper AFPs See also Response 9.1 above and Response to County of

Orange Comment 1, below. See also Responses to Comments 7.1-7.3 in Responses to 2016 Comments Document (2018).

The City is a discharger based on its authority over the tidelands—(1) the City of Newport Beach is a grantee of the tidelands and submerged lands and as such holds the lands in trust for the public and has control over the land; (2) the City has knowledge that Cu is being discharged from Cu AFPs used on boats in Newport Bay; and (3) the City has the ability to control the discharge by implementing lease provisions that require or encourage practices designed to reduce the discharges or encouraging use of alternative paints that may reduce the discharges of copper. Contrary to the City's comment, the City may control discharges of Cu from Cu AFPs by requiring hull cleaning BMPs in lease agreements for slips or marinas (and/or in marina regulations), requiring diver certification and education for hull cleaning for boats stored and maintained at facilities in the tidelands, requiring boater and boatyard education, and by incentivizing the conversion to non-biocide AFPs. These actions do not require the City to control the sale, use, or transportation of Cu AFPs or otherwise implicate the preemption clause under Food and Agricultural Code section 11501.1. See also responses to the City's comment 9-1, above.

The City's suggestion that the use of Cu AFPs by parties other than the City cannot constitute a discharge of waste regulable under the Water Code is unsupported by the cited caselaw (e.g., Ecological Rights Found. v. Pac. Gas & Elec. Co. (9th *Cir. 2013) 713 F.3d. 502, 514, is likewise unsupported by the cited USEPA regulation discussing viable safe alternatives to Cu paints and is inconsistent with the definition of "waste" in Water Code section 13050, subdivision (d). The Final Technical Report for the San Diego Regional Water Quality Control Board Dissolved Copper TMDL for the Shelter Island Yacht Basin, adopted in 2005, fully describes the basis for treating dissolved copper from copper paint, otherwise a legally available pesticide, as a waste under the Water Code:*

"The discharge of a chemical that affects water quality in a manner that detracts from the suitability of water for a beneficial use is a discharge of waste. California Water Code section 13050 defines 'waste' as including sewage and any and all other substances, liquid, solid, gaseous, or radioactive, associated with human habitation, or of human or animal origin, or from any producing, manufacturing, or processing operation . . . . The passive leaching, (i.e., discharge) of 'residual copper' from antifouling paints is a 'waste' pursuant to California Water Code section 13050(d). A discharge of waste (residual copper) occurs as a consequence of properly using copper-based antifouling paints on boat hulls. Copper-based antifouling paint is a registered pesticide applied to vessel hulls for the purpose and intent of killing target fouling aquatic organisms. The pesticide is designed to poison the entire aquatic environment of a vessel hull surface in order to discourage or prevent the growth of marine fouling organisms. However, the impacts of copper antifouling paint are not limited to target fouling organisms—other aquatic life in the vicinity of the boat hull may also be impacted. Due to water movement in the vicinity of the boat hulls, residual copper (the active pesticide ingredient) can be carried to adjacent areas in concentrations high enough to cause adverse effects to non-target aquatic organisms. Every molecule of copper poison that does not reach a target

organism is a 'waste'. Every molecule of copper poison that affects water quality necessary to support a non-target organism is 'pollution.'" (San Diego Regional Water Quality Control Board, Resolution No. R9-2005-0019, February 9, 2005, Final Technical Report for TMDL for Dissolved Copper in Shelter Island Yacht Basin, page 36.)

The San Diego Water Board's technical analysis on this point is likewise applicable here. Finally, see also draft Staff Report 2022, section 4.1.3 describing exceedances of two narrative water quality objectives for toxic substances contained in the Santa Ana Water Board's Basin Plan.

See also Response to Comment 6, above regarding the purported lack of viable safe alternatives to Cu AFPs.

III. [Comment L3] The Deletion of the SLC is Unexplained and Inconsistent with the Justificationfor Naming Other Dischargers

… Removing the Commission from the list of dischargers is inconsistent with the Commission's own characterizations of its responsibilities for the coastal environment. The Commission has been very involved in commenting on the new proposed EPA antifouling regulations under VIDA, identifying itself as "the world leader in biofouling regulation." SLC's November 25,2020 comments explain that SLC is responsible as the steward in the state of the waterways and resources entrusted to its care, including the natural resources and "land management issues." SLC's expertise and stewardship role support our prior comments in 2018 that SLC, rather than the City, should be the lead responsible party for boat antifouling discharges at issue in the TMDL.

The Regional Board lacks justification for omitting the SLC from the TMDL. Indeed, in 2018 no strikethrough version of the Basin Plan Amendments was ever provided, so many stakeholders may not have even noticed this substantive change. This lack of transparency should be addressed and explained publicly. Moreover, since the Regional Board previously concluded that the Commission and the City are dischargers for nearly identical reasons, it is arbitrary for the Regional Board to delete the Commission from the list of dischargers without also deleting the City and County. Indeed,the Commission is a world leader in antifouling and, therefore, has greater ability to controlCu AFPs on the tidelands than the City since the preemption provisions of Food and Agriculture Code section 11501.1 are targeted at local governments, not state agencies.

*Response L3- No substantiation is provided for the incorrect assertion that the "*Regional Board previously concluded that State Lands Commission (SLC) and the City are dischargers for nearly identical reasons…*". The SLC was initially included as a discharger because of the residual interest that the SLC has over the submerged lands and tidelands in Newport Bay. The SLC has since clarified that their residual interest in the submerged lands and tidelands does not give*

them authority over the day-to-day management of the granted lands necessary to control the discharge of Cu. (Reid Boggiano, Granted Lands Representative, State Lands Com., letter to Hope Smythe, Executive Officer, Santa Ana Regional Water Quality Control Board, May 6, 2019.) The Legislature granted the State's right, title, and interest in the submerged lands and tidelands in Newport Bay to the City of Newport Beach and the County of Orange. (Ch. 74, Stats. 1978; Ch. 415, Stats. 1975.)

As grantees, the City and County are responsible for administering the trust lands in accordance with the granting statutes. Under their residual authority, the SLC could report to the Legislature a condition or an act that is not consistent with the granting statutes or any other provision or law or bring an action in superior court to revoke the grant or compel requirements with the granting statute or any other provision of law. The SLC, however, cannot direct the City or County to implement the Cu TMDLs or take actions to directly implement the Cu TMDLs. Thus, the SLC was removed from the list of dischargers because it lacks the requisite authority to control the discharge of Cu in Newport Bay.

Santa Ana Water Board staff have previously responded to this comment and the Response documents have been posted and distributed to all interested parties. See Responses to August 2018 Comments Document (2021) (S. Anghera's Comment 12 (Attachment 2 to City of Newport Beach letter); and G. Newmark's Comment 3). Finally, even if some parties had not previously noticed that SLC was removed as a responsible party in 2018, the draft Basin Plan amendment documents were recirculated in summer 2021 providing ample time for the public to comment on this issue and the public may comment on this issue at the public hearing to consider the proposed Basin Plan amendment.

IV.

[Comment L4] The Regional Board's Conclusion that the Implementation Schedule Provides Enough Time is Unsupported by Evidence or Analysis

The latest draft Copper TMDL allows just 12 years to fully implement the TMDL. The City previously commented in 2016 that the implementation period (which was then longer) was too short to allow for the effect of the new lower-copper AFPs to be observed, would require potentially unnecessary actions and costs and would not allow collection of better data. In the Staff Report, the Regional Board states that the recommended compliance schedule is "adequate for this purpose." (Staff Report, p. 3.) This conclusion is unsupported by any analysis or factual support, and the schedule should be significantly lengthened.

*Response L4- The comment does not define what is meant by "*significantly lengthened*", nor is justification for an extended schedule provided. The compliance schedule specified initially in the draft Cu TMDLs was stated "as soon as possible but no later than 15 years from the date the TMDLs become effective (i.e., the date of final approval of the*

TMDLs by USEPA)", as described in the Response to the City's Comment 7.6 (Attachment 7 -Response to Comments Document 2018). This schedule was proposed based on consideration of the schedules established in other Cu TMDLs in southern California and on the time reasonably expected to be needed to implement the reasonably foreseeable methods of compliance (including hull cleaning BMPs, a diver certification/education program, a boater/boatyard education program, the conversion to lower leach rate Cu AFPs (per DPR's regulation) and/or incentivizing the conversion to non-biocide AFPs to comply with the TMDLs and achieve the CTR criterion). Subsequent revisions to the draft TMDLs (including a decreased estimate of the number of boats and margin of safety) resulted in a reduction in the estimated amount of Cu discharges from boats. The decreased number of boats resulted in an increase in the allocation for boats and a decreased percent reduction required (from 83% to 60%) for Cu discharges from boats to meet the TMDLs. Since the original compliance schedule of 15 years was based on an 83% reduction in Cu discharges from 10,000 boats, a reduction in the compliance schedule from 15 to 12 years to achieve a 60% reduction is reasonable and appropriate.

A maximum of 12 years provides ample time to collect and consider additional data. The argument that potentially unnecessary and costly actions would be necessary given the 12-year time frame is without merit. First, hull cleaning BMPs must be used with the lower leach rate Cu AFPs required by DPR to achieve the CTR chronic criterion for Cu (the use of BMPs was an inherent component of DPR's maximum leach rate determination). In short, irrespective of any TMDL implementation plan, hull cleaning BMPs need to be used with lower leach rate Cu AFPs to properly implement DPR's maximum leach rate regulation for Cu AFPs, which is now in effect. (See Responses to S. Anghera's (City's consultant) Comments 3 and 5 -Attachment 2 above.) Second, diver certification/education and boater/boatyard education programs would be appropriate strategies, under any circumstances, to complement the use of hull cleaning BMPs with lower leach rate Cu AFPs. In addition, other BMPs, such as boat floats or dry docking, can be used to reduce Cu discharges from Cu AFPs. Irrespective of requirements imposed by TMDLs, or consistent with the implementation of DPR's maximum leach rate, measures to reduce or eliminate the discharge of pollutants to waters of the United States should be implemented in accordance with the goal of the Clean Water Act and implementing regulations.

This argument on behalf of the City of Newport Beach relies on the premise that no action should be taken by the City until the full effects of the implementation of DPR's maximum leach rate for Cu AFPs on Cu concentrations in Newport Bay can be determined. This approach does not provide reasonable assurance that the objective of the proposed TMDLs, to achieve the Cu CTR chronic criterion, will be achieved; nor, as described above, is this approach consistent with DPR's recommendation that BMPs will be implemented in conjunction with the use of lower leach rate Cu AFPs in order to meet the CTR criterion.

See also Section 5.6.3 Implementation Plan Tasks and Schedules (Staff Report 2022).

V. [Comment L5] Regional Board's CTR and TMDL Analyses are Flawed

We continue to disagree with the Regional Board's incomplete or flawed analyses related both the California Toxics Rule, or CTR, and the TMDL process mandated under federal law. The Regional Board relies on 2016 or older data or 2019 DPR data. (See e.g., July 26, 2021 Regional Board Resp. to May 9-10 2019 Workshop Comments at p. 52; July 21, 2021 Regional Board Resp. to Aug. 2018 Comments at p. 6.) Neither of these provide a ***representative*** characterization of Newport Bay. The 2016 and older data are largely, if not entirely irrelevant, and the 2019 DPR data do not aim to characterize the bay but rather focuson assessing the efficacy of low-leach Cu AFPs. As described below CTR and TMDL regulatory standards demand more rigor.

Response L5 - The finding of impairment due to dissolved Cu in Newport Bay was made in accordance with the methodology established in the State Listing Policy (SLP). The SLP does not impose any limitation on the age of the data employed for impairment assessment/listing purposes (and does not discard older data). Further, this comment ignores Santa Ana Water Board staff's analysis of more recent data (2015-2016, 2019) provided by Anchor QEA on behalf of the City. Anchor QEA's studies were specifically designed to characterize dissolved Cu conditions in the Bay. As discussed in the Staff Report 2022 (Section 4.4), analysis of these data using the SLP methodology confirm the finding of impairment due to dissolved Cu. In addition, DPR's 2019 monitoring data also confirm the finding of impairment due to dissolved Cu in Newport Bay.

A. [Comment L5.1] CTR

The Regional Board relies on the CTR to attempt to establish toxicity in the Newport Bay; however, the CTR analysis is incomplete and fails to establish toxicity, particularly in light ofevidence brought to the Regional Board's attention that establishes that much of the bay is in compliance with applicable criteria, particularly those areas that receive significant flushing and tidal influence. (See Comment 2 of Chris Miller, City of Newport Beach, and Comment 3 of Dr. Susan Paulsen, May 9-10 2019 Workshop.)

Response L.5.1.a - Pursuant to the State Listing Policy, the determination of impairment based on data that show exceedances of the CTR criteria does not require evidence of toxicity. The CTR criteria were developed to be protective of aquatic organisms so that toxicity due to Cu should not be present when the Cu concentrations meet the CTR criteria.

Section 131.38 of title 40 of the Code of Federal Regulations ("C.F.R.") provides criteria and calculations for priority toxic pollutants. EPA listed the criteria and calculations.
Subdivision (c)(4) specifically instructs that aquatic life criteria be calculated for metals "from the equations." (See e.g. 40 C.F.R. § 131.38(c)(4).) For example, two criteria listed are maximum and continuous concentrations in water, specifically the criterion maximum concentration ("CMC") and the

criterion continuous concentration ("CCC"), and each of these has corresponding calculations. For saltwater, EPA listed a CCC of 3.1 µg/L in the subdivision (b)(1) matrix followed by several calculations that adjust the level to a site- specific standard:

- First, determination of CCC requires a 4-day evaluation; specifically, the CCC "equals the highest concentration of a pollutant to which aquatic life can be exposed for an extended period of time (4 days) without deleterious effects. µg/Lequals micrograms per liter." (40 C.F.R. §131.38(b)(1), Footnote d.)[3]

- Second, determination of CCC requires a water-effect ratio, or WER; the CCC criteria for these metals are to be "expressed as a function of the water-effect ratio, WER, as defined in paragraph (c) of this section." (40 C.F.R. §131.38(b)(1),footnote "i".) The "water effect ratio is generally computed as a specific pollutant's acute or chronic toxicity value measured in water from the site covered by the standard, divided by the respective acute or chronic toxicity value in laboratory dilution water." (40 C.F.R. § 131.38(c)(4).)

  Third, to "use a water effect ratio other than the default of 1, the WER must be determined as set forth in Interim Guidance on Determination and Use of Water Effect Ratios, U.S. EPA Office of Water, EPA-823-B-94-001, February 1994, or of its water quality standards program and approved by EPA."

- Fourth, once WER is calculated "CCC = column B2 or C2 value × WER." (40 C.F.R. §131.38(b)(1), footnote "i".)

- Lastly, footnote "m" specifies "saltwater criteria for metals are expressed in terms of the dissolved fraction of the metal in the water column."

This multi-step calculation is not reflected in the Staff Report or 2021 RTC, and its omission is not trivial.[4] Newport Bay is under tidal influence and flushing, which would by nature alter the levels of copper. If samples are taken on only one day when copper is high, the sample results would be biased high and would misrepresent the condition of the bay entirely. For this reason, CTR requires averaging over four days to avoid such bias results. The TMDL record, however, lacks any evidence showing any 4-day period when the CCC was exceeded sufficient to demonstrate a CTR exceedance. Samples without 4-day average fail to represent the conditions in the bay, violate the express language in the regulation, and skip the necessary evaluation EPA deems

necessary – specifically whether "aquatic organisms can generally tolerate higher concentrations of pollutants over a shorter period of time. . ." (65 Fed. Reg. at p. 31691.) Indeed, as stakeholders have pointed out, much of the bay shows no elevated copper whatsoever and even in areas where elevated copper is detected ***there is no evidence of aquatic toxicity***. (See Comment 3 of Dr. Susan Paulsen, May 9-10 2019 Workshop.)

The Regional Board has also skipped the WER calculation, opting to shift this evaluation upon the stakeholders. Here, the Regional Board must conduct the WER evaluation because without it, the impairment assessment is virtually unsupported. The vast majority of the record points to Newport Bay improving in water quality so much so that even where copperis elevated no aquatic toxicity is found. (Id.) The Regional Board needs the WER assessment to determine once and for all whether there is any relevant, recent, and representative data to support an impairment assessment. Average copper concentration for the harbor is approximately 3.0 µg/L. (See May 9-10, 2019 Workshop Comment 1 of Shelly Anghera, Moffatt and Nichol; also see Att. 6 to City's comment letter submitted concurrentlyherewith.) Without a WER evaluation, it is not possible to evaluate properly the relevance of the DPR 2019 data, which identified areas where dissolved Cu ranged between 1.49 to 6.02 µg/L.

Now more than a prior times, the improving conditions of Newport Bay make it arbitrary and capricious for the Regional Board not to undertake and complete the CTR evaluation properly using the multi-step calculations in the regulation. A correct CTR evaluation is critical given that all other relevant recent data related to the Bay shows a lack of toxicity.

[Footnote 4, p. 12, Newmark letter] We recognize that Section 6.1.4.6 of the Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List (aka State Listing Policy ("SLP")) provides that if "sufficient data are not available for the stated averaging period, the available data shall be used to represent the averaging period;" however, the record for the TMDL does not reflect USEPA approval pursuant to the CTR. Section 131.38, described above, mandates adherence to USEPA guidance or approved alternatives. The SLP scope is intended to apply to listing only and not CTR compliance determinations. Reliance on the SLP is misplaced.

Response L.5.1.b *– Santa Ana Water Board staff have previously responded to these incorrect assertions regarding the application of the CCC, WER and aquatic toxicity. See Response to G. Newmark's Comment 2, above; Response to S. Anghera's Comments 6.4-6.7 (Attachment 3 to City's letter - Responses to 2016 Comments Document (2018)); Response to S. Anghera's Comment 4.4 (Attachment 3 to City's letter- Responses to August 2018 Comments (2021). As a general response, the CTR was established by USEPA (2000); USEPA is clearly best positioned to opine on issues with respect to Water Board's staff use and*

implementation of the CTR in the proposed Cu TMDLs and Cu impairment determinations, including the CCC and WER. USEPA supports adoption of the proposed TMDLs with certain minor clarifications not relevant to this comment. See USEPA letter dated August 26, 2021, above, commenting on the proposed TMDLs.

To reiterate the salient points of prior responses regarding the CCC, WER and aquatic toxicity: First, per the State Listing Policy, which is used to assess water column impairment based on the numbers of exceedances of the CTR criteria, when a 4-day average cannot be calculated based on insufficient data, the CCC can be applied to a single sample if only one sample exists. Santa Ana Water Board staff's analyses relied, in part, on this authorized approach. Second, the proposed TMDLs allow for a WER investigation, but such an investigation is not required prior to the adoption and implementation of the proposed TMDLs. Note that USEPA established Cu TMDLs for the Bay in 2002, using the dissolved Cu CTR criteria and a default WER of 1; USEPA did not conduct a WER investigation prior to establishing its 2002 TMDLs. Finally, per the S, water column impairment is determined by the number of samples that exceed the CTR criterion; toxicity is not required for a finding of impairment.

The assertions in Footnote 4 are unclear and themselves misplaced. First, and perhaps most determinative, the USEPA, the agency that developed and established the CTR, has expressed support for the Santa Ana Water Board's adoption of `the proposed TMDLs. (See USEPA August 26, 2021 comment letter). This indicates that USEPA agrees with both the application of the CTR in impairment decisions and in the development of the proposed TMDLs.

B. [Comment L5.2] TMDL

Water Act Section 303(d), 33 U.S.C. § 1313(d), requires that states identify in priority orderimpaired waters for which technology-based effluent limitations are not stringent enough toattain and maintain water quality standards. States must then establish TMDLs for the pollutants causing impairment. Here, we see several issues associated with the proposed Copper TMDL that must be addressed.

First, in 2002, USEPA established metal TMDLs pursuant to a 1997 consent decree, and any reliance on this 2002 TMDL presents implementation challenges. We agree that a state is required to incorporate TMDLs along with appropriate implementation measures into the State Water Quality Management Plan (40 CFR 130.6(c)(1), 130.7). We also understand that USEPA has interpreted applicable TMDL regulations to require the state to incorporate EPA's TMDL into the state's implementation plan. (See June 14, 2002 U.S. EPA Region 9 TMDLs at p. 2.) TMDLs, however, are not self-implementing; they must be implemented by the state. *Pronsolino v. Nastri*

(9th Cir. 2002) 291 F.3d 1123, 1129 states that "TMDLs are primarily informational tools" that "serve as a link in an implementation chain that includes federally regulated point source controls, state or local plans for point and non-point source pollutant reduction, and assessment of the impact of such measures on water quality, all to the end of attaining water goals for the nation's waters." Given that USEPA's TMDL for copper is not self-implementing and does not include an implementation plan or compliance schedule, the federal TMDL presents implementation challenges that would raise all the same or similar challenges as those presented here.

Second, Section 3.5 of the Staff Report relies on 2014- 2016 impairment listing; however, Section 303(e) of the Clean Water Act, 33 U.S.C. § 1313(e), requires that each state have a"continuing planning process" approved by EPA, to ensure effective TMDL management. States are required to update and resubmit their impaired waters list every two years. At a minimum, we would expect a more recent impairment listing to show the Regional Board's continuing planning process.

Third, states must evaluate "all existing and readily available information" in developing their 303(d) lists (40 C.F.R. §130.7(b) (5)). We believe the technical comments submitted thus far in conjunction with the Copper TMDL reflect concerns about the reliance on out-of- date data, missing data such as the CTR WER and CCC calculations, and critical data that arecurrently planned for 2022, such as the DPR studies paused last year temporarily due to COVID measures. All of these data are essential for the Regional Board to develop the TMDL properly, if at all.

Fourth, in addition to section 303(d) lists of impaired waters, states are required to submitsection 305(b) water quality reports to EPA (due April 1 of even numbered years). Currently, USEPA has asked states to prepare 2022 Integrated Reports ("IRs"), and states arerequired to provide for public participation in the development of their IRs. Public participation in the upcoming IR report would be enhanced if the Regional Board completes the studies needed to thoroughly and properly assess whether Newport Bay is an impaired water body or whether the remedial and other voluntary measures the City and others havetaken have eliminated the impairment.

Response L.5. 2: The data evaluated by Santa Ana Water Board staff includes data from 2002-2014 and data provided by the City (2015-2016, 2019) and DPR (2019). Analyses of these data demonstrate continued impairment of Upper and Lower Newport Bay due to dissolved Cu. These findings confirm the findings of Cu impairment that resulted in the establishment of Cu TMDLs for the Bay in 2002 by USEPA. As Water Board staff have repeatedly indicated, USEPA's Cu TMDLs must be implemented in the absence of the approval of the proposed Cu TMDLs (and USEPA's TMDLs require a higher reduction of Cu

discharges from Cu AFPs). In addition, the collection of new data is required by the proposed TMDLs; the results will inform the success of the implementation measures taken, the need for and perhaps the nature/locations of additional actions necessary to reduce Cu discharges to the Bay, and future refinement of the TMDLs.

VI. [Comment L6] Relevant CEQA Law

The California Environmental Quality Act ("CEQA") "compels government first to identify the environmental effects of projects, and then to mitigate those adverse effects through the imposition of feasible mitigation measures or through the selection of feasible alternatives."

The Water Quality Control (Basin)/Section 208 Planning Program of the State and Regional Water Boards has been certified by the Secretary for Resources, which allows the Regional Board to prepare an SED instead of an Environmental Impact Report ("EIR") or Initial Study/Negative Declaration ("IS/ND") for the Project. "Documents prepared by certified programs are considered the 'functional equivalent' of documents CEQA would otherwise require." (*Arcadia*, *supra*, 135 Cal.App.4th at 1422.)

The SED must include "at least the following:

1. An analysis of reasonably foreseeable environmental impacts of the methodsof compliance;

2. An analysis of reasonably foreseeable feasible mitigation measures relating tothose impacts; and

3. An analysis of reasonably foreseeable alternative means of compliance with the rule or regulation, which would avoid or eliminate the identified impacts."

The Regional Board's revised SED is greatly improved over previous versions of the SED, which failed to consider the impacts of the reasonably foreseeable implementation measures that would be required for dischargers to meet the Board's proposed Cu TMDL. That said, the SED still does not fully account for these reasonably foreseeable impacts and continues to deflect responsibility for these impacts to the dischargers. Specifically, the revised SED completely fails to consider the human health impacts of introducing perfluorocarbons into the Bay through the use of non-biocide AFPs. The City raised these concerns to the Board in 2018, but, inexplicably, the revised SED still neglects to examine whether the introduction of perfluorocarbons in non-biocide AFPs would have any human health impacts. This is even more puzzling since the Regional Board has been issuing orders related to the investigation of PFAS (which are closely related to perfluorocarbons) and its potential impacts on human health for the last two years. The revised SED should be further amended to examine whether the use of non-biocide AFPs will have human health impacts if such paints are adopted as an alternative to the current Cu AFPs.

In addition, while the SED continually insists that the Regional Board has no responsibility for the potential impacts of the reasonably foreseeable implementation measures under the Water Code, CEQA does not allow an agency to wash its hands of the reasonably foreseeable environmental impacts of an agency's decision. (Pub. Res. Code secs. 21000, 21002, 21002.1, 21003.1, 21005, 21006.) CEQA specifically requires lead agencies to identify mitigation measures for the potential impacts of projects that the agency approves, even if those mitigation measures are ultimately the responsibility of another party. (CEQA Guidelines secs. 15041, 15091, 15126.4.) The revised SED fails as an informational document because the SED insists that the formulation of potential mitigation measures for the Board's proposed implementation measures are the responsibility of the parties devising the plans to implement the Board's TMDL, and not the Board. However, while the Board may not be able to mandate which implementation measures are chosen for the implementation plans, the Board can, and, indeed, under CEQA has a responsibility to identify the potential mitigation measures to mitigate the impacts of reasonably foreseeable implementation measures, as well as any secondary environmental impacts of those mitigation measures. The revised SED's refusal to do so is a failure to comply with CEQA'srequirements and renders the revised SED inadequate under CEQA.

Furthermore, the revised SED still gives short shrift to its analysis of cumulative impacts. Particularly concerning is the fact that the Regional Board is requiring a shift to nonbiocide AFPs, but has still failed to evaluate the cumulative impacts of similar requirements in nearby waterways. As noted previously, it is hardly speculative to envision that boats may travel from nearby San Diego or Los Angeles to Newport Bay. The revised SED should evaluate the potential cumulative impacts of the increased potential for invasive species to be attached to boats in San Diego, Newport, and Los Angeles and to further distribute those invasive species through reasonably foreseeable boat trips between the three destinations.

Response L.6: The draft SED 2022 has been revised to address the potential environmental impacts of the use of non-biocide AFPs, and states that limited studies have been completed to evaluate the potential environmental or public health effects of non-biocide AFPs. This information is also reflected in the Conclusion, below, i.e., that PFAS compounds, which may be ingredients in non-biocide AFPs, are emerging contaminants of concern for which few studies have yet been completed. The Conclusion points to some of the related issues, including the fact that most of the non-biocide AFPs (and also biocide AFPs) "do not have full disclosure of the ingredients" and "many of the compounds being used have not been tested for use in marine systems."

The draft SED 2022 identifies possible mitigation measures for potential environmental impacts that could result from the implementation of the reasonably foreseeable methods of compliance. When dischargers propose to implement specific projects, those specific projects will nevertheless be subject to the CEQA review process.

The proposed TMDLs do not require a conversion from Cu AFPs to non-biocide or other alternative paints but recommend consideration of this strategy. (Cu AFPs on recreational vessels must comply with DPR's maximum leach rate regulation for Cu AFPs, which is now in effect. This requirement is separate from the requirements of the proposed TMDLs to reduce

Cu discharges from Cu AFPs. It is recognized that implementation of the lower leach rate should contribute to these reductions. (Note that some boats were converted from Cu AFPs to non-biocide AFPs for the implementation of the Shelter Island Cu TMDL (Port of San Diego).) The draft SED 2022 describes the potential effects on Biological Resources of the reasonably foreseeable methods of compliance with the proposed TMDLs, including the potential for increased hull fouling and introduction of invasive species if boats coated with non-biocide AFPs travel to Newport Bay from other ports. Mitigation measures to address these potential impacts are identified in the SED 2022 and may include a requirement for hull cleaning of boats from ports outside of Newport Bay before they come into the Bay. (See draft SED 2022, discussion in IV. Biological Resources, a.).

VII. Conclusion

Because of the numerous legal defects in the most recent Copper TMDL and Implementation plan, it cannot be adopted in its current form.

Attachment A to August 27, 2021 Legal Comments on Behalf of City of NewportBeach
Memo from Shelly Anghera, Ph.D., Moffatt & Nichol (consultant to the City of Newport Beach) dated August 27, 2021 regarding "Perfluorooctanoic acid (PFOA) and Perfluorobutanesulfonic acid (PFAS) testing of non-biocidal antifouling paints for City of Newport Beach".

This study was designed to expand previous efforts to review available alternative antifouling paints (AFP) to support discussions on implementation strategies identified in the Revised Newport Bay CopperTMDLs and Non-TMDL Action Plans for Zinc, Mercury, Arsenic, and Chromium. A review of available AFP was conducted developed in August 2018. The review identified only three non-biocidal paints that were recommended as alternatives based on U.S. Environmental Protection Agency (EPA; 2011), California EPA (2011), and Washington Department of Ecology (Ecology; 2014), as shown in **Table 1**. All three paints are designed for commercial vessels. All three paints must be applied by professionals. Eventhough the paints are recommended alternatives to copper, Ecology (2014) and Northwest Green Chemistry (2017) maintain concerns over hazardous chemicals within the paint that could pose a risk to humans and the marine environment. Many of the paints evaluated do not have full disclosure of ingredients because of the proprietary rights and many of the compounds being used have not been tested for use in marine systems. This study was designed to evaluate the presence of an emerging contaminant of concern, Perfluorooctanoic acid (PFOA) and Perfluorobutanesulfonic acid (PFAS), in the available non-biocidal AFPs.

Results of the analyses are given below in **Table 3**. Initial analyses completed for Perfluorooctanoic acid (PFOA) and Perfluorobutanesulfonic acid (PFBS) indicated elevated levels, and samples for those compounds were re-extracted outside the recommended holding time due to backlog at the laboratory. However, paint in closed containers is not anticipated to change with holding time. The holding time flag is more appropriate for environmental samples.

As a result of the dilution level, the detection limit was very high and most of the results were non- detect (ND). Of the four paints tested, three contained high levels of Perfluoroalkyl and PolyfluoroalkylSubstances (PFASs). Only CeRam-Kote 54 SST did not have detectable concentrations greater than 400ng/L- 50,000 ng/L for specific PFAS products. PFAS chemicals may have been present at concentrationsbelow the detection limit.

Response to Conclusion – These studies are noted.

Irvine Company

Letter from Dean Kirk (VP, Environmental Affairs), Irvine Company, dated August 27, 2021, regarding "the revised draft Total Maximum Daily Loads (TMDLs) for Copper in Newport Bay, Orange County, California (Draft TMDLs), supporting documents, and responses to comments".

We appreciate the opportunity to work with Regional Board staff over the years that these Draft TMDLs have been in development. However, we continue to disagree with several aspects of the Draft TMDLs and believe that there are ***important policy issues that should be addressed by the Board***. Our comments today focus on two key points. First, the most important issue remains how the Draft TMDLs will be implemented. Second, as described in more detail in the attached technical comments, several aspects of the Draft TMDLs are new and, in our view, require revision before the Draft TMDLs are adopted.

The most important policy issue before the Board concerns how the draft TMDLs will be implemented. We, together with other stakeholders, continue to believe that existing implementation programs will result in significant decreases in copper concentrations in the waters of Newport Bay. Specifically, the on-going state-mandated transition to lower leach-rate anti-fouling paints (AFPs) will reduce the amount of copper leaching from boats into Bay waters, and the implementation of SB 346 will reduce the loading of copper from brake pad wear in runoff to the Bay. Monitoring programs are in place to assess copper concentrations in the Bay over time. And, importantly, available monitoring data show that even in samples that exceed the TMDL target concentrations for copper, toxicity is not occurring.

General Response - Santa Ana Water Board staff have previously responded to comments recommending that no further action on the TMDLs be taken pending the implementation and evaluation of the effects of DPR's Cu AFP leach rate regulation and SB 346 (re brake pads), as well to comments asserting that aquatic toxicity findings are necessary to support Cu water column impairment. See, for example, Responses to City of Newport Beach comments 9.3., 9.4., above; Newmark comments L.5.1. and b., L.4, above.

Water Board staff have also previously reminded commenters that absent the approval of the Santa Ana Water Board- approved Cu TMDLs for the Bay, the Board is obligated to continue to implement USEPA's established Cu TMDLs.

See also Response to the City's Comments 4 and 9.8 above, discussing deficiencies in the proposed implementation plan submitted by the City of Newport Beach and the County of Orange on January 28, 2022. (See also Appendix B-5 to the SED.)

As detailed in our technical comments, the Draft TMDLs include a brand-new TMDL target for copper in sediment, despite the fact that impairment is not indicated and TMDLs for sediment are not needed. The new sediment target has not been peer-reviewed. It is a mis-use of the chemistry thresholds that are one component of the state's Sediment Quality Objectives target, and it establishes an inappropriate technical precedent that is scientifically unsupported. These defects make the Draft TMDL legally vulnerable. We also continue to have significant legal and equitable concerns regarding the attempt to place responsibility for discharges from boats on non-dischargers. ***For these reasons, we urge the Board not to approve the Draft TMDL***.

If the Board nonetheless moves forward with the Draft TMDL, we request that the Regional Board make two significant changes ***before adoption***, as follows:

(1) Modify the Draft TMDLs to eliminate the new sediment TMDL target. Stakeholders within the watershed have committed to an extensive program to evaluate sediment quality, as required by Investigative Order No. R8-2018-0075, and this is the appropriate implementation action for sediment within Newport Bay.

Response 1 – The inclusion of a sediment target in the proposed Cu TMDLs is appropriate and necessary in light of the sediment numeric target included in USEPA's established Cu TMDLs. These proposed Cu TMDLs will not supersede USEPA's Cu TMDLs unless a sediment target is included. USEPA's TMDLs included a sediment numeric target since sediment Cu was a concern at the time. Sediments continue to be a concern; therefore, it is appropriate to include a sediment target and monitoring requirements.

In Santa Ana Water Board staff's 2022 Draft Basin Plan amendment for the Cu TMDLs, there are two sediment targets – a sediment Cu numeric target, and an additional alternative sediment Cu SQOs target (based on the State Water Board's Sediment Quality Provisions which were adopted in 2018 after extensive peer review). This sediment Cu SQOs target is an alternative target to the numeric sediment Cu target of the ERL (Effects Range Low from NOAA SquiRTs). The sediment Cu SQOs target is the sediment quality condition of Unimpacted or Likely Unimpacted (determined by chemistry, toxicity and benthic analyses per the SQOs methodology specified in the Sediment Quality Provisions). If the condition of Unimpacted or Likely Unimpacted is not demonstrated, then stressor identification analyses must be conducted per the SQOs methodology (Sediment Quality Provisions) to determine whether Cu is the cause of the impacted condition. If Cu is not shown to be the cause of the impacted condition, the alternative sediment Cu SQOs target is achieved.

(2) Develop a phased implementation program for the TMDL. **Phase 1** would involve implementation of existing programs (lower leach-rate AFPs, reduction in brake pad copper content, and "common-sense" BMPs related to boat maintenance) and monitoring to evaluate copper concentrations in Bay waters. **Phase 2** would involve a

TMDL reopener to evaluate copper concentrations in Bay waters and determine if additional implementation actions are needed (*i.e.*, if the Bay is still impaired for copper at that time), to define clearly any problems that require action, and to develop an effective, efficient, and collaborative solution for Newport Bay. Additional implementation actions could include development of a water effects ratio (WER) for the Bay and/or implementation requirements applicable to NPDES permits, boat owners, and others.

Response 2 – The proposed Cu TMDLs already include a phased implementation schedule, with a specific commitment to review and update the TMDLs if and as necessary.

Exponent (Susan Paulsen, PhD, PE) – consultant to Irvine Company

Letter from Exponent (Susan Paulsen PhD, PE), consultant to Irvine Company, dated August 26, 2021, regarding "Comments on Draft Basin Plan Amendments for Cu TMDLs – June 2021".

First, we appreciate and agree with the decision to eliminate most metals from the Draft TMDLs. However, we continue to have significant concerns regarding technical aspects of the Draft TMDLs. Our comments focus on four primary issues:

(1) **New sediment targets for copper should be eliminated.** The new proposed concentration target for copper in sediment is inconsistent with the State's Sediment Quality Objectives (SQO) Policy[1] and should be eliminated. Instead of creating a new sediment target, the Regional Board should assess sediment quality in a manner consistent with the SQO Policy. Additionally, the new sediment target represents a substantial departure from prior drafts of the TMDL and, if not eliminated, should be subject to peer review.

A revised sediment Cu SQOs target implementing the SQO provisions is now included in the draft Basin Plan amendment, in addition to the sediment Cu numeric target (ERL sediment guideline). See Response to Irvine Company Comment 2, above.

(2) **The use of TMDL targets and allocations derived from CTR saltwater criteria requires changes to the implementation section of the Draft TMDLs.** Concentration-based allocations in the Draft TMDL are derived from the saltwater aquatic life criteria included in the California Toxics Rule (CTR). Allocations based on freshwater CTR criteria are no longer included in the TMDL. This modification to the Draft TMDL requires clarifications in the implementation section of the Draft TMDL to clarify that the saltwater allocations should not be applied to discharges in the watershed.

See Response to Comment (2), below under "Detailed Comments".

(3) **Currently available data should be included in the TMDL and Staff Report to accurately characterize current conditions and provide information necessary to evaluate appropriate management actions**. As discussed with Regional Board staff on

August 26, 2021, several data sets have been provided to the Regional Board that are not included or described in the TMDL and Staff Report. It is important that the Regional Board members have access to information that allows them to make fully informed decisions regarding the TMDL and its implementation plan.

See Response to Comment (3), below under "Detailed Comments".

(4) **The TMDL implementation plan should be separated into two phases to allow existing regulatory measures to take effect.** New data and information continue to support the reasonable expectation that implementation measures already underway (including the transitions to lower leach rate anti-fouling paints (AFPs) and away from copper brake pads) will result in copper concentrations in the water column that are below TMDL targets. Based on the new information, we recommend that the Draft TMDLs be implemented in a phased manner to allow time for these measures, together with implementation of BMPs related to hull cleaning, to take effect. Only if these measures are ineffective should additional implementation measures be required.

See Response to Comment (4), below under "Detailed Comments".

Detailed comments

(1) The new sediment target for copper is inconsistent with the State's SQO Policy, has not been peer reviewed, and should be eliminated.

The Draft TMDLs include a new TMDL target for copper in sediment (96.5 mg/kg). As detailed below, the new TMDL target was derived inappropriately from the chemistry line of evidence of the State SQO Policy.

(a) The new sediment target is inconsistent with the SQO Policy and scientifically unsupported.

(b) The new sediment target has not been peer-reviewed.

(c) Copper TMDL requirements for addressing sediment quality should be eliminated, as sediment is not impaired for copper.

(d) The proposed sediment target is inconsistent with other actions and orders issued by the Regional Board, which implement the SQO Policy.

Response (1) - The sediment target in the proposed Cu TMDLs to which these comments refer has been further revised. See Response to Irvine Company Comment 2, above.

A condition of sediment impairment is not required for a TMDL or TMDL tasks to be developed and adopted. Note, however, that sediments were initially determined to be impaired by Santa Ana Water Board staff based on exceedances of older sediment Cu guidelines (Effects Range Median (ERM) and Effects Range Low (ERL)). While that finding has been revised based on consideration of the Sediment Quality Provisions, the requirement to monitor sediments by the newer SQOs methodology is justified. See also Response to Irvine Company Comment 2, above.

(2) The use of TMDL targets and allocations derived from CTR saltwater criteria requires changes to the implementation section of the Draft TMDLs.

Response (2) – There are no freshwater allocations. A clarifying table note has been added to Table 6 Mass-Based Allocations for Copper (Cu) in Newport Bay in the draft Basin Plan amendment. The note reads: "These allocations apply to tributary and storm drain inputs to the water column in Upper Newport Bay (defined from San Diego Creek at Jamboree Rd. down to Pacific Coast Highway Bridge), Lower Newport Bay (defined from PCH Bridge to the Newport Jetty) and the Rhine Channel (confined by line drawn from 20th St. across to Lido Beach St. to channel end). These allocations apply to the receiving waters of Newport Bay at all times of the year, regardless of freshwater flow from San Diego Creek, Santa Ana Delhi, Costa Mesa Channel and other tributaries into Newport Bay. Compliance with these allocations is to be assessed in the aggregate at representative sampling points just upstream of major tributary and storm drain discharges into Newport Bay."

(3) Currently available data should be included in the TMDL and Staff Report to accurately characterize current conditions and provide information necessary to evaluate appropriate management actions.

Response (3) – As requested, the data used in the Santa Ana Water Board staff's Impairment Assessment have been discussed on multiple occasions with the stakeholders, and have been made available to interested parties. These include newer data provided by Anchor QEA on behalf of the City of Newport Beach (2015, 2016, 2019) and DPR (2019). The newer data continue to demonstrate water column impairment of Upper and Lower Newport Bay due to dissolved Cu and are summarized in the Staff Report 2022. See also Response to the County's Comment 6 below.

(4) The TMDL implementation plan should be separated into two phases to allow existing regulatory measures to take effect.

Response (4) - The Cu TMDLs already include a phased implementation schedule. See also Response to Irvine Company Comment 3, above.

(4.1) Finally, as described in the City of Newport Beach's comments, samples with concentrations of copper greater than 3.1 µg/L are not causing toxicity, demonstrating that 3.1 µg/L is lower than necessary to protect aquatic life.

Response 4.1 –The CTR criterion is meant to be protective of aquatic life so that concentrations greater than 3.1 µg/L do not necessarily result in toxicity. The CTR provides for adjustment of the CTR criteria based on a Water Effects Ratio (WER) study that demonstrates that the default WER of 1 is incorrect for Newport Bay. The proposed TMDLs allow for such a study if the dischargers elect to pursue it. Additionally, the proposed TMDLs also allow for the development of site-specific objectives using the biotic ligand model or multiple linear regression model and the studies necessary to support that action.

County of Orange

Letter from the County of Orange dated August 30, 2021 regarding "Comment – Basin Plan Amendments to Incorporate Total Maximum Daily Loads for Copper in Newport Bay (Resolution No. R8-2021-0009)", and 4 Attachments.

General Comment 1 -The comments were developed in conjunction with the Cities of Irvine, Newport Beach, Santa Ana and Tustin, who have indicated that they should be considered concurring entities with the County's comments.

Response GC1 - The concurrence of other entities in the comments is noted.

General Comment 2 - The County understands that the Santa Ana Regional Water Quality Control Board ("Regional Board" or "Santa Ana Water Board") is recirculating the Proposed BPA due to revisions made in the corresponding documents (initially circulated in August 2016 and then again July 2018), and that the Regional Board may consider adoption of the Proposed BPA in October. Although the notice of hearing states, "[p]lease limit new comments to the revised portions of the draft documents and to issues that were not raised during the previous comment periods," the documents that were circulated for the Proposed BPA (particularly Attachment A to Resolution No. R8-2021-0009, the Draft Substitute Environmental Document, and Staff Report) did not readily indicate which portions of the documents have been changed, nor were additional workshops that were requested by the stakeholders held to clarify the issues previously raised. As such, all prior comments submitted by the County are attached and incorporated by reference in this letter and should be reconsidered as part of the record for the Proposed BPA (**Attachments A-1** and **A-2**).

Response GC2 - Many of the comments submitted in this set of comments and in Attachments A-1 and A-2 are the same comments as those previously provided by the County. Santa Ana Water Board staff have previously responded to these comments. (See Responses to 2016 Comments Document (2018) and Responses to August 2018 Comments Document (2021)).

Two public workshops were conducted in May 2019, in addition to multiple conference calls with the City, County, Irvine Company, and O.C. Coastkeeper. In addition, technical meetings to discuss the proposed Cu TMDLs were held on August 26, September 21 and October 14, 2021. These meetings included the City, County of Orange and the Irvine Company, as well as Water Board staff. All parties have had ample opportunity to discuss/comment upon issues of concern. This said, we expect that technical meetings with dischargers will continue following adoption of the TMDLs and that these meetings will focus on the implementation aspects of the TMDLs, including the development of requisite monitoring programs. Such meetings are not and should not be a construed as an impediment to the consideration of adoption of the proposed TMDLs; rather, as indicated, they should be regarded as facilitating the implementation of the TMDLs after adoption.

Additionally, set forth below under "Detailed Comments" are further comments and recommendations focused on the continuing and unaddressed legal defects, as well as policy and technical issues within the Proposed BPA that require correction or further clarification. Generally, these comments concern the following:

The Regional Board does not have authority to impose responsibility on the County for discharges of copper from individual boats painted with state-regulated copper-based anti-fouling paints (AFPs). The County is not a discharger and has no active role in the individual decision- making or regulation of activities leading to the release of copper from AFPs. Further, because the County does not regulate the individual choices of boat owners to engage in the legal use of AFPs, the County lacks knowledge with respect to which of the vast majority of privately owned and operated boats use AFPs (versus alternative paints), what their respective leach rates are, and the manner of and/or frequency with which boats painted with AFPs are cleaned. Further, the County does not permit or license the cleaning of boats with AFPs, and the County is legally prohibited from controlling the design, sale or use of AFPs. *[See Response to Comment 1 below.]*

- Given that the use of copper AFPs on boat hulls is the largest source of copper to the Bay and the water quality throughout the Bay is close to meeting the proposed numeric targets, the TMDLs should incorporate a phased approach and final attainment date that allow for a prioritization of resources. *[See Responses to Comments 2 and 5 below.]*
- The Proposed BPA is not clear and/or does not include critical components similar to other TMDLs that have recently been adopted by the Regional Board[1] such as how compliance with the waste load allocations (WLAs) will be determined, how the TMDLs are to be incorporated into permits, and where monitoring occurs and assessments of compliance are conducted. *[See Responses to Comments 3, 4 and 10 below.]*

- The Proposed BPA should acknowledge in the Source Analysis and TMDLs, Wasteload and Load Allocations sections that, as a result of the Permittees' efforts, the Tributaries are meeting the mass-based WLA and no further reductions are needed. *[See Responses to Comments 3 and 8 below.]*
- The Implementation Plan and Schedule needs to be clarified and modified so that it is clear who is responsible for what, what the schedule is, and where efficiencies can be achieved. *[See Responses to Comments 9, 11, 12, 13 and 14 below.]*
- Technical approach outlined in Proposed BPA includes a number of substantial concerns and the approach does not appear to fully consider current bay conditions. *[See Responses to Comments 6, 7 and 8 below.]*

Given the significant and yet unaddressed legal, regulatory and technical issues, the Regional Board is urged to make the recommended changes to the Proposed BPA prior to adoption, even if this requires another opportunity to public review and comment. Alternatively, the County requests that the Regional Board delay the anticipated October adoption hearing and hold additional stakeholder workshops to develop implementation alternatives which would address the ongoing concerns over the Proposed BPA.

[Comment 1]

1. **The Regional Board lacks authority to impose responsibility on the County for copper discharges from AFPs used on boats in Newport Bay, because the County is not a discharger and there is insufficient legal and factual basis to impose responsibility on the County as a "landowner".**

The Staff Report generally asserts its statutory authority to regulate waste discharges to waters of the state, under the Porter-Cologne Water Quality Control Act, Division 7 of the California Water Code,[2] as the basis to hold various parties – including individual boat owners, marina owners/operators, and agencies responsible for permitting/licensing marinas and underwater hull cleaners – responsible for copper discharges from AFPs.[3] In reliance on State Board orders, the Staff Report further asserts that the Regional Board has "discretion" to essentially ignore most of these parties, primarily the boat owners with AFPs on their boats, and hold only the "landowners" responsible.[4] Applying this "discretion," the Staff Report explains that the Proposed BPA seeks to hold the County entirely and exclusively responsible for copper discharges from AFPs on all boats within County managed tidelands, based on the County's alleged (1) ownership of the land on which an activity occurs that results in the discharge of waste; (2) knowledge of the activity causing the discharge; and (3) the ability to control the activity within its lands.[5] The Proposed BPA's legal basis for holding the County responsible is unsupported in both law and fact.

[Footnote 4: Staff Report, 5.6.1.3.1(2) at 87 (recommending regulation through a waiver of WDRs and that the County of Orange and City of Newport Beach are the only initial enrollees responsible for achieving copper reductions), 5.6.21 at 91.]
[Footnote 5: Staff Report, 5.6.2.1 at p.92. The County does not dispute that it holds in public trust, subject to the terms of a state grant, a small portion of tidelands and/or submerged lands

within Newport Bay]

Response 1 – The proposed TMDLs recognize that a number of entities are dischargers responsible to achieve the TMDLs. These include the County of Orange, City of Newport Beach, marina owners/operators, individual boat owners, hull cleaners, and others. The Staff Report discussion to which the comment refers pertains to a preliminary Santa Ana Water Board staff recommendation, included in the Staff Reports 2016 and 2021, that the City of Newport Beach and the County take the lead in preparing proposed implementation plans on behalf of other responsible dischargers to achieve the TMDLs, since their resources and extensive presence and implementation of activities in the Bay, including monitoring programs in the Bay, best positions these agencies to propose and implement strategies that will ensure timely compliance with the TMDLs. Irrespective of this preliminary recommendation, it is important to recognize that the action to adopt these TMDLs will not determine any particular regulatory mechanism for implementing the TMDLs as TMDLs are not self-implementing. Moreover, the assignment of pollutant allocations in a TMDL does not, in itself, impose any liability or other legal obligations on those named. The legal basis for identifying the County as one of multiple responsible dischargers for reducing discharges of Cu from boats in Newport Bay is addressed below and also in Response to City of Newport Beach comment 9.1, and Response to G. Newmark comment 2, above (though directed to the City of Newport Beach argument that the City is not a discharger, these responses identify the legal basis for Identifying dischargers that is equally applicable to the County).

1.1 The County cannot be held responsible for copper waste discharges from AFPs on boats that are not owned by the County, because the County is not a discharger.

Comment 1.1.1 As discussed in prior comments provided to staff but yet to be squarely addressed, the Water Code only authorizes the regulation of persons or entities that discharge, or plan to discharge, waste into water bodies. Specifically, Water Code Section 13260 requires "person[s] discharging waste, or proposing to discharge waste" to file a report of waste discharge with a regional board. [fn6] If a regional board decides to permit a waste discharge (through issuing waste discharge requirements (WDRs) or a waiver), the Water Code requires that it provide notice to "the person *making or proposing the discharge."* [fn.7] Moreover, Porter-Cologne's overarching discharge prohibition in Water Code section 13264 states that no person shall "initiate" or "make" unpermitted discharges of waste. [fn. 8] These statutes are the source of the Regional Board's authority under Porter-Cologne to regulate waste discharges and dischargers, and their language is clear: only persons who discharge or are proposing to discharge waste are subject to the Regional Board's authority. There is no language in the Water Code that authorizes a regional board to impose regulation or liability on non-dischargers.

Response 1.1.1
The Regional Board has authority under the Water Code to prescribe waste discharge requirements to persons discharging waste or proposing to discharge waste within the region if the discharge could affect the quality of waters of the state (other than discharges into a community sewer system). (Wat. Code sec. 13263, subd. (a).) As discussed in this response as well as in the Staff Report 2022, section 5.6.2, the County, as well as the City of Newport Beach, marina

owners/operators, hull cleaners, and individual boat owners, discharge waste into Newport Bay that impact the Bay's water quality. Where discharges of waste are ongoing or are proposed, waste discharge requirements may be prescribed even if a report of waste discharge (see Wat. Code § 13260) has not been filed as to a discharge or proposed discharge (Wat. Code § 13263, subd. (d).) The Regional Board may also, under appropriate circumstances, waive provisions in subdivisions (a) and (c) of Water Code section 13260, subdivision (a) of section 13263 and subdivision (a) of section 13264, as to any specific type of discharge if the Water Board finds the "waiver is consistent with any applicable state or regional water quality control plan and is in the public interest." (Wat. Code § 13269.) The County's assertion that the Water Code does not authorize a regional board to regulate a <u>non-discharger</u> is not relevant here where, as explained in the Staff Report 2022 and as discussed below, the County meets the legal test established in successive State Water Board precedential orders, as a discharger of residual copper from hull paint on boats in marinas or mooring areas (on tidelands and submerged wetlands owned and managed by the County as grantee from the State).

Comment 1.1.2 The term "discharge" is not defined in the Water Code. However, its meaning was recently interpreted in *Sweeney v. California Regional Water Quality Control Board, San Francisco Region,* 61 Cal. App. 5th 1093 (2021). In considering whether a person had "discharged" waste into marsh water for purposes of a cease and desist order under Water Code 13304, the appellate court adopted a trial court's determination that "the term [discharge] meant '[t]o allow (a liquid, gas, or other substance) to flow out from where it has been confined,' 'to give outlet or vent to,' and '[to] emit'." [fn. 9] The court stated that it "did not dispute this common sense meaning of 'discharge' as applied to Porter-Cologne." [fn. 10] At the core of the *Sweeney* definition is that the entity being held responsible for "discharge" have some active involvement in the actual release of waste – i.e., that the entity allow to flow (otherwise confined), give outlet to, or emit waste." [fn. 11] The *Sweeney* definition underscores the Water Code's limitation of the Regional Board's regulatory authority to those who engage in some action toward the actual "discharge" of waste.

Response 1.1.2
The Santa Ana Water Board disagrees that the Sweeney opinion case the County cites stands for the proposition that a person cannot be a discharger under the Water Code absent some "active involvement in the actual release of waste" or that the Water Board's regulatory authority is limited to "those who engage in some action toward the actual 'discharge' of waste." At issue in Sweeney was what constituted a discharge of waste under the facts in that case. The discharge of residual Cu from boat hulls painted with Cu AFPs fits the definition of discharge identified in Sweeney. (see Sweeney v. California Regional Water Quality Control Bd., San Francisco Region, 61 Cal.App. 5th 1093, 1120-1121 (2021)). Nothing in the Sweeney opinion conflicts with the State Water Board precedent decisions that support a regional board's authority to name a landowner as a discharger in waste discharge requirements (and cleanup and abatement orders) when the landowner is aware of discharges of waste on or from its property even if the landowner did not take an active role in the discharge, but was in a "position to prevent the discharge and knew or should have known that the discharge was taking place." (See State Water Board Order No. 89-12, In the Matter of the Petition of the San Diego Unified Port District, p. 6, fn. 3, referencing by example, Order No. WQ 86-18 (Vallco Park, Ltd.), Order No. WQ 86-15 (Stuart Petroleum), Order No. 86-11 (Southern California Edison Company), Order No. WQ 86-2 (Zoecon Corporation). In referencing these precedent orders (see Order No. WR-90-16, In re Lagunitas, p. 17, fn. 11), the State Water Board notes that in these

orders, "we upheld the decision of the Regional Board to name in waste discharge requirements or cleanup and abatement order the owner of the land on which the discharge occurred. In each case, the landowner did not take an active role in the discharge but, in each case, the landowner was in a position to prevent the discharge and knew or should have known that the discharge was taking place." Identifying the County and City of Newport Beach in their capacity as landowners/tidelands and submerged lands grantees, under the circumstances of these proposed Cu TMDLs is entirely consistent with the State Water Board Orders. Nothing in Sweeney requires a different result.

Comment 1.1.3 The Proposed BPA's plan to impose responsibility for copper discharges from AFPs entirely on "landowners" exceeds the bounds of the Regional Board's authority under Porter-Cologne. Though the Staff Report asserts that the County, a trustee of lands for public harbor uses, is a responsible landowner, the Staff Report does not identify a single fact which indicates that the County takes any action toward the release, outlet or emission of copper waste from AFPs applied to boats. This is because the County takes no such action. The County has no involvement in the decision to paint individually owned boat hulls with AFPs. The County does not permit hull cleaning or determine the manner or frequency with which individual boats using AFPs are cleaned. The County is not the entity that regulates or permits the design, formulation, sale or use of AFPs.

Response 1.1.3 The Staff Report 2022 does not assert that the County will be held exclusively responsible for addressing impairments of Cu from Cu AFPs by achieving reductions in discharges to Newport Bay. It identifies the County, the City of Newport Beach, marina owners/operators, hull cleaners, and individual boat owners as responsible dischargers collectively. Moreover, the proposed TMDLs are not self-implementing – what regulatory mechanisms the Santa Ana Water Board will ultimately adopt to implement the TMDLs will not be determined through the adoption of the proposed TMDLs.

The Santa Ana Water Board acknowledges that the County does not regulate or permit the design, formulation, sale or use of AFPs and the County does not presently have involvement in individual boat owner decisions as to which hull paint to use or involvement in the establishment or oversight of hull cleaner operations. The Staff Report 2022 does not require or anticipate that the County will be required to regulate or permit the design, formation, sale or use of AFPs. For the reasons discussed above, the County need not "take[] any action toward the release, outlet or emission of Cu waste from AFPs applied to boats" in order to be a responsible discharger under the proposed TMDLs.

Comment 1.1.4:

While the Staff Report argues that the permitting of boats to dock within the County facilities supports imposing legal responsibility and liability for each individual boat's "discharge" of copper waste within Newport Bay, this reasoning ignores a critical fact: the copper in AFPs is in no way confined or restricted such that the docking and in-water cleaning alone is what causes its release. To the contrary, AFPs are intentionally designed to release copper (at specifically permitted rates) into the water. [fn. 12] Copper release is an AFP design feature and the purpose for which copper AFPs are manufactured, marketed and sold to boaters. Moreover, because AFPs are pesticides, their registration, sale, transportation and use is within the exclusive jurisdiction of the Department of Pesticide Regulation (DPR). [fn. 13] In other words, the application of AFPs to boat hulls – the

primary source of waste at issue here – is a use that is permitted, and the County cannot "in any way attempt to regulate any matter relating to the registration, sale, transportation, or use" of AFPs. [fn. 14] This lack of regulatory authority over the waste source is critical considering that the Staff Report indicates that in order to attain the Proposed BPA's target salt water copper concentration number in Newport Bay, the change-over of some boat to paints without copper would be necessary. [fn. 15] The County cannot prohibit individuals from using AFPs or compel the use of alternative paints. The Proposed BPA seeks to impose responsibility (and potential liability) on a non-discharging landowner, who also lacks the power to actually regulate or control the discharge. Copper waste from AFPs is discharged, if at all, by boat owners and operators who each make the individual decision to use legally available copper-based AFPs, which are permitted for such use by DPR. The County cannot be held liable for these state-sanctioned, individual actions.

Response 1.1.4
The Santa Ana Water Board is not proposing that the County "prohibit individuals from using Cu AFPs or compel the use of alternative paints." Similarly, the County claims it "lacks the power to actually regulate or control the discharge." While the Santa Ana Water Board does not require or anticipate the County will "regulate" discharges of residual copper, the County's managerial authority over the tidelands and submerged lands where boats in Newport Bay are moored, affords it sufficient control over discharges of residual copper as discussed above (see Response to County Comment 1, above). The Staff Report 2022 identifies possible strategies within the County's control to implement practices for reducing Cu discharges such as the use of BMPs during hull cleaning. Absolute control (to the exclusion of other actors) over discharges and their effects is not required to allow the Santa Ana Water Board to find that the County, as a landowner, has sufficient control to be identified as a discharger. (See, e.g., State Water Board Order WQ 1989-08, In re Spitzer, p. 8.)

The County's contention that it cannot be held responsible for Cu discharges from boats because boat owners may legally use Cu-based AFPs is not compelling. The TMDLs do not seek to hold the County or even individual boat owners "liable" for individual boat owner decisions to use legally available paints. Rather, collectively responsible dischargers will need to take steps to achieve reductions in Cu discharges to Newport Bay to comply with the TMDLs and achieve the water quality that is protective of beneficial uses designated for Newport Bay. Education and outreach will also likely play a role in facilitating actions to reduce Cu discharges. While Cu AFPs meeting DPR's newly-established lower leach rate may be legal to use, steps to reduce impairments of water quality caused by legally used pesticides are appropriate where water quality is impaired in part as a result of legally used pesticides. (DPR's memo states that the use of lower leach rate paints alone will likely not be enough to achieve water quality criteria in the largest marinas (DPR memo - J.Cuevas to H.Smythe, May 6, 2019)). Implementation of practices designed to reduce discharges of residual Cu from legally available Cu-based AFPs, including use of BMPs during hull cleaning, boater/boatyard education, diver certification/education, and providing incentives to individual boat owners to consider conversion to alternative paints to reduce Cu discharges to the Bay, does not require the County to interfere with legal sale use of Cu. See also Response to City of Newport Beach Comment 9.1, above.

1.2 The Staff Report and responses to comments fail to substantively address case law that remote and passive involvement, like the County's role as trustee of public harbor facilities, is insufficient to impose liability under Porter-Cologne.

Comments submitted in 2018 challenged the Proposed BPA's application of "landowner liability" as overbroad and unsupported. [fn.16]. Relying on *City of Modesto Redevelopment Agency v. Superior Court,* 119 Cal. App. 4th 28 (2004), these comments discussed that, like those manufacturers and distributors in *City of Modesto* whose involvement was limited to selling solvents without warnings of dangers, because the involvement of marina owners and operators was "remote and passive," marina owners and operators could not be regulated as responsible parties under the Proposed BPA. [fn.17] Rather, to be liable, an entity must have an "active involvement in activities leading to a discharge." [fn. 18].

The recently released Responses to Aug. 2018 Comments – Cu TMDLS document (RTC) fails to substantively address *City of Modesto* and identify authority for imposing responsibility under a "landowner" test derived from administrative Water Quality Orders, in light of *City of Modesto.* Circumventing the issue, the RTC asserts:

> *City of Modesto supports the naming of marina owners and operators as dischargers. Marina owners and operators are actively involved in the activities that lead to the discharge of CU from Cu AFPs – they own and/or operate the marinas and enter into agreements with boat owners that allow boats to congregate in marinas where the discharge of Cu from the boats takes place. Marina owners and operators can control the discharge through conditions in their agreements with boat owners. Marina owners and operators' involvement with the discharge of Cu is neither remote nor passive. See also response to comment 4.2 above. [fn 19.].*

Regional Board staff has not identified any legal authority to support its proposed regulation of the County under a "landowner liability" theory of responsibility, particularly under the complex regulatory and technical facts concerning AFP design and regulation, and their use in public harbors. The RTC takes the position that *City of Modesto* supports the proposed regulation, because owning and operating of marinas and the lease/rental of harbor space "allow[s] boats to congregate in marinas where discharge of Cu from the boats takes place." [fn. 20]. The RTC concludes that this amounts to marina owners and operators being "actively involved in the activities that lead to the discharge of [copper] from [copper] AFPs." [fn 21] This analysis rings hollow for marina owners/operators and landowners alike as, yet again, it ignores the critical fact that AFPs, by design, release copper, regardless of whether they are in a harbor or out in open water. It also fails to account for the practical reality that the approval for use of APFs on boats navigating waters of the state effectively sanctions the release of copper from AFPs into state waters. Thus the leasing of marina space and the incidental congregration of boats in a harbor are not the activities that "lead" to the discharge of copper. Instead, it is the design, sale, approval for use and application of the paints themselves, none of which the County can control. The County's ownership and operation of public harbor facilities, a use it is *required* to maintain for public benefit under the tidelands grant, are not the activities that lead to the discharge of copper from AFPs. [fn. 22]. The County's involvement is remote and passive at best.

In advance of Regional Board consideration of the Proposed BPA, and with sufficient opportunity for public comment, the Regional Board staff should specifically identify the legal (not administrative) authorities which support holding landowners such as the County responsible for copper boat paint discharges, where the paints themselves are approved for in-water antifouling uses, and consequentially, copper release, throughout the state.

Response 1.2
See Response to Comment 1.1., above. Further, while the Santa Ana Water Board maintains that the City of Modesto would also support naming marina owners/operators (as well as the City of Newport Beach and Orange County), the test in Modesto was not established in the context of landowner responsibility as was the case on the line of State Water Board precedent orders on which the legal responsibility determination is made and is not dispositive of whether it is appropriate to identify landowners and marina owners/operators at Newport Bay as responsible dischargers in addition to individual boat owners and hull cleaners. The State Water Board orders identified in Response to City of Newport Beach comment 9.1, above, identify legal principles for determining landowner responsibility for the condition of property which support naming the County, as well as marina owners/operators under the same circumstances, as responsible dischargers for reducing copper discharges from individual boats. Moreover, as described in Response to Comment 1.1., above, the Legislature recognizes, where administrative decisions are designated by the adopting agency as precedent, such decisions may be expressly relied on for "a significant legal or policy determination of general application that is likely to recur." (See Gov't. Code § 11425.60, subdivisions (a) and (b); see also State Water Board Order WR 96-01, In re Lagunitas, fn. 11., ["[T]he SWRCB designates all decisions or orders adopted by the SWRCB at a public meeting to be precedent decisions, except to the extent that a decision or order indicates otherwise, or is superseded by later enacted statutes, judicial opinions, or actions of the SWRCB."].) Thus, the Santa Ana Water Board may rely on the principles articulated in the precedent orders cited in responses to comments and in the Staff Report 2022 to identify the City, County and marina owners/operators in similar positions to landowners, as responsible dischargers.

1.3 Regulation of the County is unjustified even under the Staff Report's standard for landowner liability, because the County lacks knowledge regarding individual AFP use, and the County cannot control or regulate the design or use of AFPs.

Assuming, for argument, that the Regional Board has the authority to regulate and hold liable entities based on (1) ownership of the land on which an activity occurs that results in the discharge of waste; (2) knowledge of the activity causing the discharge, and (3) the ability to control the activity within its lands, holding the County responsible for individual boat paint discharges would still be unjustified.

The second prong of the Staff Report's landowner liability standards cannot be met, as the County does not have knowledge regarding the type of paints applied to each of the boats within its harbor facilities, or knowledge of how their hulls are cleaned, or how often they are cleaned. In other words, the County has no notice of where or who the sources of discharge are within Newport Bay,

and whether these sources are even within the County's lands. Contrary to the Staff Report reasoning, a general awareness of the effects of copper from AFPs is insufficient to constitute "knowledge of the activity regarding the discharge" under the circumstances, given the widespread availability of AFPs, the lack of individual boat owner regulation related to AFP usage, and the fact that various portions of the Newport Bay tidelands and marinas are owned and/or operated by different entities. Concluding that the County has "knowledge" of the activity which is causing Newport Bay to exceed the target copper concentration, without any facts supporting knowledge as to the activities of individual boats within the County's lands, would render the "knowledge" prong meaningless, resulting in strict liability based on the marina/harbor facility ownership alone. The Staff Report identifies no basis in the law to hold the County responsible under such circumstances.

As discussed in comments above, the County also lacks the ability to control the activity resulting in copper waste discharge from AFPs, because the "activity" at issue is the design, sale and use of the AFPs, not docking in the harbor. The Staff Report indicates that in order to meet the copper reduction targets for boat paints, not only does the conversion from higher to lower leach rate AFPs required by DPR need to happen, but also the conversion of some boats to non-biocide paints, all while AFPs would still remain a legal paint option. [fn. 23] Both of these necessary actions are contingent on individual boat-owner decisions, with the latter also implicating the sale and use of AFPs. The County cannot force or regulate either. This factor alone demonstrates that the County does not have the ability to control the activities resulting in the discharge. Accordingly, responsibility for achieving the Proposed BPA's copper reduction cannot be imposed on the County under the Staff Report's three-prong landowner liability standard.

Response 1.3
The "activity" at issue is not "the design, sale and use of the AFPs", but rather the discharge of residual Cu from Cu AFPs as the result of leaching and during hull cleaning for boats docked in marinas or moorings within Newport harbor." While ascertaining information about the types of paints used by individual boaters, knowledge of the frequency of paint application and the frequency of cleaning would be useful information for implementation of copper reduction efforts, such knowledge is not essential in order to take steps to encourage boat owners generally to consider the use of BMPs during hull cleaning or the conversion to alternative paints.

1.4 The Proposed BPA's Implementation Plan impermissibly prescribes the County's manner of compliance, in violation of Water Code 13360.

Water Code section 13360 states [in pertinent part] that "no waste discharge requirement or other order of a regional board . . . shall specify the design, location, type of construction, or particular manner in which compliance may be had with that requirement, order, and the person so ordered shall be permitted to comply with the order in any lawful manner.

The Proposed BPA does not allow for independent development and selection of each responsible party's copper reduction strategies. Instead, the BPA prescriptively requires

consideration and implementation of "one or more" of the Board-approved reduction strategies, stating that responsible parties "are expected to include the conversion of boats to lower leach rate Cu AFPs and/or the conversion of some boats from Cu AFPs to alternative non-biocide AFPs, the implementation of BMPs to reduce Cu discharges during hull cleaning with diver certification, and boater/boatyard staff education." [fn.24.]

This requirement to implement Regional Board-approved strategies is a direct contradiction of Water Code 13360 and should be eliminated in favor of an implementation plan that expressly allows responsible parties to comply in any lawful manner.

Response 1.4
First, the County incorrectly employs language in the Staff Report 2021 (which has been revised in the Staff Report 2022) and not in the proposed Basin Plan amendment itself to assert that the proposed amendment prescriptively requires the implementation of one or more Cu reduction strategies. Rather, the proposed Basin Plan amendment requires that the County and other responsible dischargers consider specific strategies when developing proposed implementation plans. The proposed amendment does not prescriptively require the implementation of any specific reduction strategy.

Second, the TMDL is not self-implementing and is not, without further regulatory action, susceptible of prescribing the manner of compliance. It is during the development of a subsequent regulatory action that the Santa Ana Water Board will establish requirements specific and appropriate for responsible dischargers. The Water Board must provide notice and provide opportunities for public participation prior to adoption of a regulatory action and such regulatory actions are subject to petition and review by the State Water Board.

Third, as stated *in part in Response 5 to the City of Newport Beach Written Comments of August 2018, "The Santa Ana Water Board cannot dictate the method of manner of compliance, and the proposed TMDLs do not attempt to do so. Rather, the dischargers, including the City, are required to develop their own implementation plan(s) and schedule(s) whereby compliance with the TMDLs is to be achieved, and to implement their strategies upon approval by the Regional Board. The City could use incentives, such as reduced slip fees or rebates, to encourage boaters to convert from Cu to non-biocide AFPs. Boaters will need to convert to lower leach rate Cu AFPs per DPR's leach rate regulation (which requires the use of Cu AFPs with leach rates at or below 9.5 µg/cm2/d) and this may be an opportune time to consider conversions from Cu to non-biocide AFPs. In addition, the use of BMPs is identified in Water Board staff's proposed Cu TMDLs Implementation Plan as one of the tasks that must be considered by the dischargers in the development of their own proposed implementation plan(s).*" *Like the City, the County is identified as a discharger responsible for, or accountable for the implementation of the proposed Cu TMDLs. See Response to Comment 1.1., above.*

Recommendations: [Note: These recommendations are not italicized here in order to distinguish them from Water Board staff's responses]

- Delete the County and other marina owners and operators as parties responsible to meeting TMDL target copper reduction for copper discharged from boat AFPs.

- *Response - See Response 1.1, above. The County and marina owners and operators are properly identified as dischargers responsible to meet the Cu reductions from boat AFPs required by the proposed TMDLs.*

- Hold stakeholder meetings to develop alternative means of achieving TMDL goals, including non-TMDL implementation plans and voluntary actions of various stakeholders, to reduce copper discharges form boast [sic] AFPs.

  Response - See Response 1.2, above. - Additional technical meetings to discuss the proposed TMDLs were held on August 26, September 21, and October 14, 2021. These meetings included the City, County of Orange, and the Irvine Company, as well as Santa Ana Water Board staff. Additional meetings are anticipated, in particular to review proposed monitoring plans.

- Revise Implementation Plan to specify that the BMPs identified in the Implementation Plan are only recommended and that the decision not to incorporate any of them in a specific implementation plan does not need to be justified by an explanation.

  Response - See Response 1.4 above – The required tasks regarding reduction of Cu from boats are identified in Task 1.1 of the proposed Cu TMDLs Implementation Plan (Table 9 in the BPA) and include the submission of a proposed implementation plan and continued monitoring by dischargers. The recommended tasks are identified in Task 1.2; and are reasonably foreseeable methods of compliance that staff believe must at least be considered in the development of the dischargers' implementation plan (including an explanation if the recommended tasks are part of the proposed plan). This is particularly relevant to the implementation of BMPs, which some dischargers have argued are unnecessary, even though DPR's maximum leach rate determination for Cu AFPs inherently includes the use of BMPs, and DPR's determination letter states that BMP implementation is necessary to achieve the CTR Cu criteria.

- Revise the Implementation Plan to state that any person lawfully subject to subsequent orders/waivers implementing the Proposed BPA may comply with the orders/waiver in ANY lawful manner and need not include the Regional Board-recommended BMPs.

  Response – see Response to Comment 1.4, above.

[Comment 2]
2. Structure the Copper TMDLs as a Phased TMDL and establish timeframes for each phase based on expected completion of and ability to assess progress.

USEPA guidance [fn. 25] provides for the establishment of phased TMDLs in certain situations (emphasis added).

"The phased TMDL approach would be used in situations where limited existing data are used to develop a TMDL and the State believes that the use of additional data based on better analytical techniques would likely increase the accuracy of the TMDL load calculation and merit

development of a second phase TMDL. Such significant uncertainty may arise, for example, because the State is using a surrogate to interpret a narrative standard, or because there is little information regarding the loading capacity of a complex system such as an estuary and it is difficult to predict how a water body will react to the planned load reductions."

In the case of the Copper TMDLs for Newport Bay, there are several technical issues related to the development of the loading capacity and implementation strategy (including the planned load reductions) that would be significantly improved with additional data and/or methodologies such that it would increase the accuracy of the TMDL load calculations/reduction strategies. These issues, which are summarized below are consistent with USEPA guidance and, thus, merit development of a phased TMDL":

Response 2 – The proposed Cu TMDLs provide a compliance schedule of "as soon as possible but no later than 12 years from the date the TMDLs become effective (final approval by all applicable agencies, including USEPA)", an interim compliance schedule and a commitment to review and revise the TMDLs, if necessary, based on new data and information collected as part of the TMDL implementation process. This approach is a phased approach that allows for adaptive management of implementation strategies, and time for studies needed to develop a WER adjustment of the CTR criteria and/or site-specific objectives for Cu for the Bay. This said, the Water Board provided the dischargers the opportunity to develop and propose an alternate implementation plan that might supplement/revise Board staff's Implementation Plan in the proposed Cu TMDLs. That proposal was submitted on January 28, 2022. As previously described, the proposed plan submitted by the dischargers did not articulate a specific plan of action that provided the requisite reasonable assurance that Cu impairment in Newport would be corrected. See Responses to the City's comments 4 and 9.8, above. (See also Response to Comment 5 below and Appendix B-5 to the SED.)

- [Comment 2.1] Utilize a More Robust Model for the Loading Capacity and Linkage Analysis – The mass-based loading capacity is derived from the USEPA "Bathtub" model approach. However, this approach is not an appropriate or accurate modeling methodology for a complex waterbody such as Newport Bay. The Bathtub model is aptly named, in that it simulates a system using a simple, mass-balance approach, assuming that the waterbody is well-mixed. In addition, the Bathtub model assumes a steady state that is more applicable to lakes, reservoirs, or slow-moving rivers where complete mixing occurs. However, Newport Bay is tidally influenced and a geographically complex system, which requires a more refined site-specific approach to accurately predict source loads, residence time, and copper concentrations at various locations throughout the Bay.

  Response 2.1 – While USEPA's model assumes a steady state, it does consider freshwater inputs from upstream, local inputs, tidal flux, and particle settling. This model used parameters from RMA's finite element model to determine loading capacity for Newport Bay.

- [Comment 2.2] Potential Development of Site-Specific Objectives - The compliance approach recognizes that responsible parties may elect to pursue site-specific objectives for copper in Newport Bay that, if approved, would necessitate reconsideration of the numeric targets identified for these TMDLs. The compliance schedule should allow the time necessary for such investigations to proceed and for future revision of the TMDLs if site-specific objectives are ultimately approved.

  Response 2.2 – See Response to the County's comment 2, above.

- [Comment 2.3] Numeric Interpretation of the Narrative Sediment Quality Objectives (SQOs) - The sediment copper target in the Proposed BPA is a numeric interpretation, reportedly of the narrative SQOs- Water Quality Control Plan for Enclosed Bays and Estuaries of California – Sediment Quality Provisions (2018). These Provisions state "The [multiple lines of evidence] MLOE consist of sediment bioassays, benthic community health, and sediment chemistry that are applied to interpret the narrative SQO…". However, the target in the Proposed BPA uses only one line of evidence related to sediment chemistry, which is inconsistent with the SQO guidance. In fact, the Sediment Quality Provisions classifies sediment quality based on three integrated lines of evidence (chemistry, toxicity, and benthic community) and notes that "results for a single [line of evidence] LOE shall not be used as the basis for an assessment" of sediment quality.[26]

  Response 2.3 – The proposed sediment target in the Draft Basin Plan amendment 2021 that was based on the Sediment Quality Objectives (SQO)s in the State Board's Sediment Quality Provisions (2018), has been revised in the Draft Basin Plan amendment 2022. In the Draft Basin Plan amendment 2022, there are two sediment targets – a sediment Cu numeric target, and an additional alternative SQOs target. This sediment Cu SQOs target is an alternative target to the numeric sediment Cu target of the ERL (Effects Range Low from NOAA SQuiRTs), and is also based on the State Board's Sediment Quality Provisions (which were adopted in 2018 after extensive peer review).

  The sediment Cu SQOs target is the sediment quality condition of Unimpacted or Likely Unimpacted (determined by chemistry, toxicity and benthic analyses per the SQOs methodology specified in the Sediment Quality Provisions). If the condition of Unimpacted or Likely Unimpacted is not demonstrated, then stressor identification analyses must be conducted per the SQOs methodology (Sediment Quality Provisions) to determine whether Cu is the cause of the impacted condition. If Cu is not shown to be the cause of the impacted condition, the alternative sediment Cu SQOs target is achieved. (See also Response 2 to the Irvine Company, above.)

- [Comment 2.4] Need to Implement and Assess the Highest Priority Implementation Tasks Prior to Implementing and Expending Resources on Additional Activities – The Staff Report and Proposed BPA recognize that a) copper AFPs on boats are the largest source of dissolved copper to Newport Bay (this source is larger than all other sources combined); b) the highest priority is to reduce or eliminate copper discharges from

copper AFPs on recreational and commercial boats; and c) the TMDLs cannot be met unless copper loading from boats is reduced or eliminated.[27] As a result, the Implementation Tasks associated with the reduction of discharges from recreational and commercial boats should be the highest priority and the focus of a first phase for the TMDLs so that these activities can be implemented and assessed before additional resources are spent on other, less environmentally significant activities.

Response 2.4 – A priority approach can be identified in the dischargers' proposed implementation plan.

- [Comment 2.5] Study Evaluating Reduction from AFPs is Underway - The Department of Pesticide Regulation (DPR) is conducting a long-term monitoring study of marinas in California to determine the concentrations of dissolved copper based on the July 2018 regulation and other mitigation actions.[28] This study, which will not be completed until 2022- 2023 for the monitoring and likely a year or two longer for the development of the final report, is critical since it will assist in confirming if the predicted dissolved copper concentrations (and attainment of the CTR criteria) from the Marine Antifoulant Model to Predict Environmental Concentrations (MAM-PEC) are realized within the marinas.

Response 2.5 – While it is correct that DPR is evaluating Cu concentrations in Newport Bay resulting from the implementation of their own lower leach rate regulation for Cu AFPs, DPR itself recognizes that the conversion to lower leach rate Cu AFPs alone is unlikely to achieve the CTR criterion for dissolved Cu (3.1 µg/L) in the largest marinas DPR expects that BMPs (and other mitigation measures) will be used ***concurrently*** *with these lower leach rate paints.*

- [Comment 2.6] Additional Time is Needed to Understand Barriers to Implementing the AFP Replacement Process – Stakeholders in the other two Southern California Copper TMDL waterbodies should be fully engaged so that the barriers to implementation of the AFP replacement process and approaches for these challenges can be incorporated in the TMDL implementation Plan. Early consultations with representatives from the Shelter Island Yacht Bay (SIYB) Copper TMDL indicate that they are facing the following challenges:
- [Comment 2.6.1] The final load reduction and interim targets can only be measured (with any accuracy) by developing a Bay-wide vessel tracking system that tracks paint characteristics of each of the 5,000 vessels in the Bay. Requiring vessel owners to opt into a voluntary tracking system has its own challenges and without such a system, load reduction calculations would be based on inaccurate assumptions.

Response 2.6.1 – While quantifiable load reductions may require a "tracking system", the reduction in Cu discharges could be easily estimated by surveying the leach rates of the Cu AFPs currently in use to determine the potential reduction of Cu discharges when all recreational vessels are using Cu AFPs with leach rates at or below DPR's maximum of 9.5 µg/cm^2/d.

- [Comment 2.6.2] To date, the SIYB TMDL had shown a disconnect between load reductions and water column levels of dissolved copper. Copper loading in the SIYB has been decreasing (meeting the interim target for the SIYB TMDL), while copper levels in the water column have stayed generally consistent.

Response 2.6.2 – Comment noted. The "disconnect" between load reduction and dissolved Cu concentrations in SIYB could be due to many factors, including the fact that SIYB is only one marina in San Diego Bay.

- [Comment 2.6.3] The in-water cleaning requirements and effectiveness of the new DPR approved paints at 9.5 μg/cm^2/d (DPR's leach rate regulation) are not well understood. DPR's recommended BMPs and cleaning frequency for these approved paints may not be effective in a real-world situation. The additional cleaning pressure and frequency needed to prevent biofouling may result in enhanced release of copper from DPR approved paints, an unintended consequence of the proposed BMPs.

Response 2.6.3 – Comments noted. DPR's Cu leach rate regulation, which includes the recommended use of BMPs, such as soft cloths for hull cleaning, is now in effect. A Navy study on Cu discharges from Cu AFPs (Earley et al. 2013) demonstrated that during hull cleaning, the use of BMPs compared to non-BMPs substantially reduces Cu discharges from Cu AFPs.

- [Comment 2.6.4] The effectiveness of alternative (non-biocide) hull paints used in Southern California is not well understood, leading to reluctance by vessel owners to strip off the existing copper paint and re-paint their vessel with a non-biocide alternative. In general, vessel owners tended to repaint their vessels with the biocide AFP formula given its known effectiveness. Additionally, boat painters may be unwilling to recommend paints that they are uncertain about and could impact warranties or reputation.

Response 2.6.4 – Comment noted. Again, the proposed Cu TMDLs do not require conversions to non-biocide paints, but such conversions (and boater education programs and incentives for conversions) are to be considered by the dischargers as part of their TMDL compliance strategies.

- [Comment 2.7] Additional Time is Needed to Develop and Implement Individual/Regional Monitoring Programs as well as Assess Results. (See **Comments #9 and #10.**) - The "Implementation Plan for Copper" requires that the responsible parties (individually or collectively) conduct a robust monitoring program for water column and sediment at multiple locations within Upper and Lower Newport Bay and tributary and storm drain runoff locations and assess compliance with the TMDL targets, allocations, and other guidelines. The Implementation Plan currently only allows 3 months for potential watershed stakeholder collaboration and development of four monitoring plans and does not consider the timeframe that would be necessary in order to allow for

full implementation of the Implementation Tasks nor the time that would be needed in order to detect environmental changes based on the implementation of those activities (often 10+ years). In fact, for environmental changes that are small (e.g., 5% change, 10 % change from current conditions, etc.), many years and a large number of samples may be needed to detect the change.

Response 2.7 – Santa Ana Water Board staff have previously addressed comments concerning the schedules identified in the TMDLs and Implementation Plan. See, for example, Responses to City of Newport Beach comments 3.4.1, 3.4.2 and 11, Response to August 2018 Comments Document (2021) (Appendix B to the draft SED 2022); City of Newport Beach comments 9.3 and 9.4, above. See also Response to Orange County Coastkeeper comment 1, above. Further, the County, City of Newport Beach, and other dischargers were given additional time to prepare and submit a proposed implementation plan(s), including tasks and schedules, to achieve the proposed Cu TMDLs, prior to Water Board consideration of the TMDLs. Water Board staff anticipated that this proposal would address the County's expressed concerns. However, the proposal submitted by the County on January 22, 2022, did not articulate a plan that would provide the assurance that the Cu impairment in Newport Bay would be corrected. (See Response 2, above and Responses to City's Comments 4 and 9.8, above, and Appendix B-5 to the SED.)

Further, as described in prior responses in this document, additional technical meetings to discuss the proposed TMDLs were held on August 26, September 21, and October 14, 2021. These meetings included the County, City of Newport Beach, and Irvine Company, as well as Water Board staff. Additional meetings are anticipated, in particular to review potential monitoring plans. The anticipation of these additional meetings, however, does not warrant postponement of consideration of adoption of the proposed TMDLs; rather, these meetings are expected to assist with the development of discharger implementation plans, including monitoring programs.

- [Comment 2.8] Final Attainment Date Does Not Allow the Time Necessary to Complete and Assess the Full Suite of Implementation Tasks – The TMDL establishes a final attainment date of "no later than 12 years from the date of approval by USEPA." Despite the conclusion within the Staff Report, we respectfully disagree that this timeframe "allows for the implementation of prioritized tasks over time, evaluation of their efficacy, and adaptive management of implementation strategies to ensure that the TMDLs are implemented effectively, efficiently and fairly." In fact, the Staff Report does not provide supporting information/justification as to how this timeframe would allow for all of the required activities to be completed (including numerous Regional Water Board approvals) and for the environmental samples to reflect the results.

Response 2.8 – See the Response to Comment 2.7, above, and the discussion in the Staff Report 2022, section 5.6.3.1. Water Board staff's proposed Implementation Plan and schedules provide for an adaptive management approach to correct impairment that can be adjusted, and potentially revised through the basin planning process, if warranted.

[Comment 2.9] One potential approach for a phased Copper TMDL would be to utilize a three-

part structure including:

- Phase I – *[Focus on Upper and Lower Newport Bay, special studies underway, and the primary source]* Types of activities may include: Allow the time necessary to fill key data gaps and conduct additional data analyses[30]; conduct a full analysis of water and sediment quality within Upper and Lower Newport Bay using the most recent, readily available data and established methodologies (such as the sediment quality objectives); investigate and potentially adopt site-specific objectives for copper in Newport Bay; implement actions for the largest source (recreational and commercial boats) such as public education and outreach; and assess load reductions as a result of DTSC and DPR regulations regarding copper AFPs (note – there may be other tasks that would also be critical within this Phase).
- TMDL Reconsideration – *[Focus on evaluation of data analyses and special studies from Upper and Lower Newport Bay, activities that were completed during Phase I, and identification of TMDL revisions and next steps]*
  Link to the completion of Phase I with specific completion dates. Identify potential TMDL modifications (loading capacity, targets, allocations, implementation plan, etc.) and next steps based on lessons learned from Phase I. This phase can be structured such that it is completed X years after Phase I and be completed no later than X years from the effective date of the TMDL.
- Phase II – [*Focus on continued monitoring and implementation actions for significant sources of copper to the Bay].*
  Link to the TMDL reconsideration with specific initiation dates.

A similar type of approach and phasing was used for the development of the Selenium TMDLs that were adopted by the Regional Water Board in 2017 and approved by USEPA in 2019.

Recommendation: [Note: this recommendation is not italicized in order to distinguish it from Water Board staff's response]

- Structure the Copper TMDLs as a Phased TMDL and establish timeframes for each phase based on expected completion and assessment of the key elements. Add a new section "Phasing of the Copper TMDLs" to capture the approach (similar to the selenium example within the comment).

Response 2.9 - The proposed Cu TMDLs already include a phased implementation schedule, with a specific commitment to review and update the TMDLs if and as necessary. See also Response to Comment 2.7 and 2.8, above. As stated in the Response to Comment 2.7, the County and other responsible dischargers requested and were given an opportunity to propose an alternative implementation plan. That plan, submitted on January 28, 2022, identified a phased approach but did not articulate an approach that would provide assurance that water quality impairment due to dissolved Cu in Newport Bay would be corrected.

[Comment 3]

3. The Copper TMDLs need to include compliance options as a part of the assumptions and requirements of the WLAs as well as clear direction to permit writers regarding how the TMDLs are to be incorporated into the relevant NPDES permits.

The Proposed BPA includes:

- Numeric targets for copper in water (based on saltwater criteria) and sediment in Newport Bay.
- Mass-based WLAs and Load Allocations (Las) for tributaries and storm drains (amongst others) in Newport Bay; and
- Concentration-based allocations for copper in Newport Bay (based on saltwater criteria)

However, there are no compliance options included as a part of the assumptions and requirements of the WLAs. Instead, the following statements regarding how compliance is determined are included within the Implementation Plan
– many of which either conflict or are confusing as to who has to comply and where compliance is assessed (emphasis added):

- Compliance with the Cu TMDLs will be considered to be achieved if the dissolved Cu CTR criterion of 3.1 µg/L is achieved…. (Page 10)
- [SQOs data shall be evaluated to determine compliance with the SQO-based sediment target. (Page 10)
- [This task includes the monitoring and evaluation of copper in larger storm drain discharges (Task 3), and in-Bay receiving waters and sediments below storm drain outlets for compliance with the numeric targets (CTR criterion, SQOs-based sediment target). (Page 10)
- 1.1.2 The dischargers shall implement their plan(s) and schedule(s) and submit an annual report that includes the data and assessment of that data with respect to compliance with the dissolved Cu CTR chronic criterion and SQOs sediment target…. (Page 13)
- 3.2.1 The dischargers shall submit proposed implementation plan(s) and schedule(s) to monitor and evaluate Cu concentrations and determine the Cu loads from tributary and storm drain runoff to demonstrate compliance with the Cu WLAs and Las. (Pages 17-18)

In addition, the Staff Report notes in several places that Upper and Lower Bay have been delisted for "General Metals"[31], Tributary Runoff is currently meeting the assigned dissolved copper allocations and no further reductions are necessary at this time, and that the dischargers will be required to continue to monitor to ensure that copper loads from tributary runoff remain at or below the allocations.

Similar to the Selenium TMDLs that were adopted by the Regional Board, the allocations

should include compliance options as a part of the assumptions and requirements and there should be language that clearly identifies how the TMDL will be incorporated into the NPDES Permits.

A. Potential language could include the following: - Compliance with the WLAs [Note: that the following potential language is not italicized to distinguish it from Water Board staff's responses]

The following compliance options are included to clearly indicate how compliance with the WLAs, incorporated as effluent limitations into the applicable NPDES Permit, will be determined. These compliance options are part of the assumptions and requirements of the WLAs and will be explicitly incorporated in the applicable NPDES Permit to the extent permitted by law.

MS4 Permittees and Other NPDES Permittees

Compliance with final WLAs (incorporated as effluent limits) may be demonstrated through any one of the following means:

A. Implementation of an approved Implementation Plan (consistent with the approved Plan and schedule) for all areas where the MS4 Permittee is identified as a Responsible Party OR

B. Attainment of the numeric targets over the specified averaging period, as measured in the Assessment Area OR

C. Attainment of the concentration-based WLA over the specified averaging period in the receiving water, as measured at the Assessment Point OR

D. Attainment of mass-based Tributary and Storm Drain WLAs, over the specified averaging period as measured at the Assessment Point OR

E. No discharge.

B. Incorporation of the TMDLs into NPDES Permits

TMDLs are not self-implementing and must therefore be incorporated into the appropriate regulatory mechanisms to be enforceable. Section 303(d) of the CWA requires WLAs to be implemented through the NPDES permit program.
After a TMDL has been developed, water quality-based discharge limits in NPDES permits authorized under CWA section 402 must be consistent with the assumptions and requirements of the WLAs.

The purpose of this section is to provide clear direction to permit writers regarding how these copper TMDLs are to be incorporated into the relevant NPDES permit.

MS4 Permits for Permittees

Effluent limitations are generally expressed in numerical form. However, USEPA guidance provides discretion for how TMDLs should be incorporated into permits for NPDES-regulated municipal and small construction stormwater discharges, including expressing effluent limitations as BMPs or other similar requirements rather than as numeric effluent limitations as long as the effluent limitations are clear, specific and measurable. As part of the

assumptions and requirements of the WLAs, these copper TMDLs specifically provide for BMP-based compliance, as one of several options, for MS4 Permittees.
As the WLAs are incorporated into the MS4 permit for Permittees that discharge directly to Newport Bay via appropriate effluent limitations, all assumptions and requirements of the WLAs, including all footnotes and all compliance options specified in the TMDLs and Allocations section, will be incorporated into the permit.

Development and implementation of an Individual Monitoring Plan or participation in a Regional Monitoring Plan consistent with the Implementation Plan meets the requirements of the copper TMDLs. No additional load reductions are necessary.

Since Santa Ana Water Board staff found no impairment for Zn, Pb or Cd in the Upper Bay, or Zn and Pb in the Lower Bay, no TMDLs are required and thus, no specific permit provisions are necessary.

Since no additional load reductions are necessary for upstream tributaries to Newport Bay based on the Source Analysis, no TMDL-based numeric action levels or effluent limits are required to be incorporated into the MS4 Permit.

Other NPDES Permits for Permittees that Discharge Directly to Newport Bay

There are several Regional Board orders and/or NPDES permits that may be revised to incorporate the copper TMDLs' WLAs. The expectation for incorporation of these TMDLs is similar to that stated above for MS4 permits.

As the WLAs are incorporated into other NPDES permits that Discharge Directly to Newport Bay, the entirety of the WLAs, including all footnotes and all compliance options specified in the TMDLs and Allocations section, shall be incorporated into the permit.

Since Santa Ana Water Board staff found no impairment for Zn, Pb or Cd in the Upper Bay, or Zn and Pb in the Lower Bay, no TMDLs are required and thus, no specific permit provisions are necessary.

Other NPDES Permits for Permittees that Discharge to Newport Bay Tributaries

Since no additional load reductions are necessary for upstream tributaries to Newport Bay based on the Source Analysis, no TMDL-based numeric action levels or effluent limits are required to be incorporated into the Industrial General Permit or the Construction General Permit.

Development and implementation of an Individual Monitoring Plan or participation in a Regional Monitoring Plan to confirm continued compliance with mass-based WLAs meets the requirements of the Copper TMDLs.

Since Santa Ana Water Board staff found no impairment for Zn, Pb or Cd in the Upper Bay, or Zn and Pb in the Lower Bay, no TMDLs are required and thus, no specific permit provisions are necessary.

Recommendation: [Note: the following recommendations are not italicized to distinguish them from Water Board staff's responses]

- Modify the "TMDLs, Wasteload and Load Allocations, and Margin of Safety for Copper"

section to include the compliance options as a part of the assumptions and requirements of the WLAs (similar to example language "A. Compliance with the WLAs" within the comment).

- Include a new section "Incorporation of the TMDLs into NPDES Permits" to provide clear direction to permit writers regarding how the TMDLs are to be incorporated into the relevant NPDES permits (similar to example language "B. Incorporation of the TMDLs into NPDES Permits" within the comment).

Response 3
Santa Ana Water Board staff have carefully considered the specific recommendations above, and also consulted with permitting staff both at the Santa Ana and State Water Boards regarding the language that should be included in the draft Basin Plan amendment to ensure that the requirements of the TMDLs are properly applied in permit requirements for MS4 and other tributary runoff dischargers. Appropriate revisions to the proposed TMDLs have been made in response to permit staff's recommendations and included in the proposed Basin Plan amendment.

With respect to the County's first recommendation above: The inclusion of compliance options for dischargers responsible to implement the selenium TMDLs, as described in these comments, was appropriate given the significant complexity of selenium inputs to the Newport Bay watershed, in part because groundwater inflows are a significant Se source and because there is no available conventional Se treatment technology. In the matter of these proposed Cu TMDLs, Cu AFPs on boats have been clearly identified as the most significant source of Cu to the Bay and are subject to control via reasonably foreseeable methods of compliance, such as the use of commonly employed BMPs (e.g., soft cloths for hull cleaning). As noted in the comments above, the mass-based wasteload allocations assigned to tributary runoff, including discharges from the MS4 system (for which the County is the principal permittee), are already being met; no further reductions are required at this time for tributary runoff. Language to this effect has been added to the proposed Basin Plan amendment; see draft amendment, Implementation Plan, Compliance Schedule. Language has also been added to the proposed TMDLs to clarify the point at which compliance with the mass-based allocations is to be assessed. Since tributary runoff has been assessed and is already meeting the proposed allocation, there is no evident reason to include further language providing compliance options.

With respect to the County's second recommendation above: Santa Ana Water Board staff do not believe that an additional section regarding incorporation of the Cu TMDLs into NPDES permits is necessary. First, the Water Board has already taken steps to implement USEPA's established Cu TMDLs in relevant NPDES permits; the established permitting approach will be applied to the proposed Cu TMDLs upon approval. The draft Basin Plan amendment already includes direction regarding the application of the TMDLs in permits – see "Assumptions and Requirements of Mass-based Allocations" and Table 6 and 8 notes.

Santa Ana Water Board staff had anticipated that the County would address these potential language recommendations in the alternative implementation plan proposal submitted by the County on January 28, 2022. The submitted plan did not address these

recommendations, nor did it articulate an acceptable alternative implementation plan for the Cu TMDLs (see Response to Comment 2.7, above and Appendix B-5 to the SED.)

In addition, language has been added to the mass-based allocation table to reflect the fact that strict compliance with the allocations for boats, including those assigned to commercial boats 79 ft. or greater in length and recreational boats/smaller commercial vessels, will not be required if there is a demonstration that the dissolved Cu CTR criteria (or a WER-adjusted criteria, or an approved site-specific objective) are met in the Bay, using the State Listing Policy listing methodology to make this determination.

As has been discussed with the County and other stakeholders, the fact that Santa Ana Water Board staff found no impairment for Zn, Pb, or Cd in the Upper Bay, or Zn and Pb in the Lower Bay does not mean that USEPA's established TMDLs for these metals are no longer in effect. Per federal regulations, USEPA's TMDLs for these metals must continue to be implemented unless superseded by Water Board approved TMDLs.

[Comment 4]

4. Clarification needs to be made that the concentration-based saltwater copper target and allocations are not applicable to freshwater tributary and storm drain flows, and that all such dischargers may demonstrate compliance with future permits based on freshwater monitoring data from just upstream of the freshwater discharge to Newport Bay (see Comment #3).

In the "TMDLs, Wasteload and Load Allocations, and Margin of Safety for Copper" section, the Proposed BPA identifies that there is a mass-based WLA for tributary and storm Drains for MS4 Permittees (including the County), Caltrans, and other NPDES Permittees[34] of 3,005 lbs/year and saltwater concentration-based allocations for copper in Newport Bay. In addition, the Proposed BPA states [emphasis added]:

> "The mass- and concentration-based allocations specified in the tables below apply to the receiving waters of Newport Bay at all times of the year, regardless of the volume of freshwater flow from all tributaries, including San Diego Creek, Santa Ana Delhi, Costa Mesa Channel, and other tributaries to Newport Bay. "

The above language, and language similar to it throughout the Staff Report and Proposed BPA, create ambiguity as to which targets and allocations (mass or concentration) apply to the various sources of loading identified in the Proposed BPA. This ambiguity, in turn, has potential to create significant confusion and error in how the Proposed BPA is incorporated into future permits. For example, in indicating that mass-based allocations "apply to the receiving waters of Newport Bay," the above language suggests that tributary dischargers' adherence to their specific WLA is to be assessed based on Bay waters, as opposed to the distinct tributary flows. The technical rationale for this mode of assessment is unclear, given the loading from tributaries is determined based on data limited to freshwater tributary flows. Similarly, and as discussed below, it would not make technical sense to have the minority freshwater tributary loading be assessed based on the 3.1 µg/L saltwater target, concentration-based copper target for the Bay at large, given the various other non-tributary sources identified in the Staff Report. Yet, the Proposed BPA does not include clear, explicit instructions that would ensure proper

incorporation of applicable Proposed BPA provisions in future NPDES permits.

The Proposed BPA, therefore, needs to be amended to clarify that: (1) loading from tributaries is to be assessed in the aggregate, at a point just upstream of the discharge point of each major freshwater tributary into Newport Bay (i.e. San Diego Creek at Campus, Santa Ana-Delhi Channel at Irvine, which account for more than 95% of freshwater input into the Bay; see comment #10 below); and (2) the 3.1 µg/L chronic, concentration-based salt water copper target and allocation for Newport Bay is not applicable to tributary flows and, therefore, this concentration based target should not be incorporated into future NPDES permits for tributaries as WQBELs or otherwise.

In order to provide clarity to the County, other Permittees, and permit writers and to ensure that this information is included as a part of the tables (and not lost in the future if the tables are copied into other documents), the allocations tables[35] need to include footnotes regarding the assumptions and requirements of the WLAs.

Response 4- The proposed Basin Plan amendment has been revised to include clarifying language concerning the application of the mass-based and concentration-based allocations for tributary dischargers. See proposed Basin Plan amendment, "Assumptions and Requirements of Mass-based Allocations" and Table 6 and 8 notes. See Response to Comment 3, above. Specifically, the changes include a table note has been added to Table 6 Mass-Based Allocations for Copper (Cu) in Newport Bay to clarify where compliance with the allocations for MS4 and CalTrans is to be achieved (see also Response to Exponent's Comment 2, above.) A table note has also been added to address implementation of the allocations for permittees in the "other NPDES Dischargers" category, i.e., Industrial General Permit, Construction General Permit and the Scrap Metal General Permit. See Table 6 Mass-Based Allocations for Copper (Cu) in Newport Bay in the draft Basin Plan amendment.

4.1 Because tributaries are within their WLA, there is no basis for future permits to include WQBELs.

In addition to the above technical reasons, express clarification that the 3.1 µg/L concentration-based saltwater target and allocations do not apply to tributaries is required, because there is no basis to impose WQBELs on tributary flows.

According to the Staff Report, regulation of loading from the tributaries is premised on delegated authority to permit point source discharges of pollutants under the Clean Water Act ("CWA"). The Staff Report contemplates that the Proposed BPA will be implemented by tributaries, through incorporation into various NPDES permits issued under the CWA.

The CWA does not authorize regulation of point sources, such as the County MS4, through imposition of WQBELs where they are not necessary to achieve water quality standards.[36] As evidence in the record demonstrates, and a prior version of the Proposed BPA has acknowledged, WQBELS are not necessary here, because the tributaries have consistently proven to be well under the 3,005 lbs./year allocation in the Proposed BPA. In short, as the Staff Report indicates, tributary runoff is not the problem. Accordingly, to the extent the Proposed

BPA intends for future NPDES permit to include a WBQEL for copper, such an action would be in excess of authority under the CWA. Tributary dischargers should be allowed to *continue* to meet their copper allocations through ongoing implementation of their effective management actions and BMPs, and not be subject to more additional, more stringent effluent limitations.

The Proposed BPA should be modified to clearly state that the 3.1 µg/L concentration-based saltwater copper allocation is not applicable to tributary flows, and that future NPDES permit writers are not to impose this concentration-based standard as a WQBEL in future permits.

Recommendation: [Note: these recommendations are not italicized in order to distinguish them from Board staff's responses]

- Modify the language regarding where the mass-based allocations apply to "at a point just upstream of the discharge into Newport Bay" (not in the receiving waters of Newport Bay).
- Clarify that Tributary Dischargers' adherence to the allocation in Proposed BPA is to be determined based on the mass-based allocations.
- Modify the "TMDLs, Wasteload and Load Allocations, and Margin of Safety for Copper" section to include the footnotes to the tables as a part of the assumptions and requirements of the WLAs.
    - Footnote to "Mass-Based Allocations for Copper (Cu) in Newport Bay"[37] table (Tributary and Storm Drain WLAs and Las) – These allocations apply to and are assessed at a point just upstream of major freshwater discharge into Newport Bay.
    - Footnote to "Concentration-Based Allocations for Copper (Cu) in Newport Bay"[38] table – These allocations apply to and are assessed in the receiving waters of Newport Bay where the salinity is equal to or greater than 10 parts per thousand 95% or more of the time. These allocations are not applicable to Tributary and Storm Drain Dischargers. Concentration-based data for tributary flows shall be used to determine adherence to the mass-based allocation, and not as a basis for compliance in and of itself.
    - Footnote to both the Mass-Based and Concentration-Based Allocations tables – Compliance with allocations will be determined pursuant to the compliance options outlined under the heading "Compliance with WLAs and Las." Such compliance options are directly incorporated herein as part of the assumptions and requirements of these allocations.
- Modify Implementation Plan Task 3 title: Meet Copper (Cu) <u>mass-based</u> allocations for <u>major</u> ~~tributary~~ tributaries runoff – continue to monitor and evaluate Cu concentrations in runoff.
- Modify Implementation Plan Task 3.2.1 title: The dischargers shall submit proposed

implementation plan(s) and schedule(s) to monitor ~~and evaluate~~ flow and Cu concentrations and determine the Cu loads from tributary runoff to demonstrate compliance with the Cu mass-based WLAs and Las (i.e., evaluate whether Cu loads from tributary runoff remain below the Cu mass-based allocations).

Response 4.1 – Changes to the draft Basin Plan amendment have been made to address these recommendations. Table note 1 to Table 6 Mass-Based Allocations for Copper (Cu) in Newport Bay now clarifies that the allocations for MS4 and CalTrans discharges apply to Bay waters and indicates where compliance is to be assessed (see draft BPA). Note 1 to Table 8 Concentration-Based Allocations for Copper (Cu) in Newport Bay now clarifies the waters to which the concentration-based allocations apply and where compliance is to be assessed (see draft BPA). Changes to the titles of Implementation Plan Tasks 3 and 3.2.1 have also been made, consistent with the County recommendations above. (See draft BPA, Implementation Plan for Copper (Cu), Tasks 3, 3.2.1, 3.2.2, 3.2.4).

[Comment 5]

5. The final date of attainment needs to be clarified and modified to allow key activities focused on the primary source to occur and other, subsequent actions to then be implemented if the targets and/or allocations are not achieved. (See Comment 2)

The final date of attainment (final compliance) is first presented within the section "Implementation Plan for Copper" and states:

> "Final compliance with the Cu TMDLs must be achieved as soon as possible but no later than 12 years from the date of approval of the TMDLs by USEPA."

In addition, the "Implementation Plan and Schedule for Copper TMDLs" table within the Implementation Plan section includes the following, interim dates of compliance:

> "As soon as possible but no later than (12 years from date of USEPA approval of the Basin Plan amendment (BPA)), with the following interim schedule:
>
> No later than (4 years from the date of USEPA approval of the BPA): A minimum 20% reduction of Cu discharges from AFPs shall be achieved.
>
> No later than (8 years from the date of USEPA approval of the BPA): A minimum 40% reduction of Cu discharges from AFPs shall be achieved.
>
> No later than (12 years from the date of USEPA approval of the BPA): A minimum 60% reduction of Cu discharges from AFPs shall be achieved."

There are two key concerns with this language:

- There is little/no justification for the final compliance timeframe based on the Implementation Plan Tasks. The only justification for the 12-year timeframe within the Staff Report is "These proposed Cu TMDLs include a compliance schedule that allows time to implement and adaptively manage the tasks/strategies to ensure effectiveness, efficiency and fairness." (Pages 66, 76) and "The maximum 12 -year time frame is considered to be sufficient to allow boats to be repainted with lower

leach rate Cu AFPs or non-biocide AFPs/coatings…. This compliance schedule also allows for the consideration of Newport Bay-specific Cu objectives for Newport Bay …if the dischargers choose to pursue this option." (Page 97)

In fact, there is no discussion or rationale for this timeframe based on the almost two dozen required implementation tasks or the time necessary to a) develop the various implementation and monitoring plans; b) receive approval from the Regional Water Board on the required plans; c) modify the plans based on comments received from the Regional Water Board; d) fully implement the approved plans and other activities over a period of time; and e) be able to monitor and assess the effectiveness of the plans/activities and potential water quality improvements.

In addition, there is no consideration regarding the prioritization of the tasks within the schedule – focusing first on the reduction of copper from AFPs from recreational and commercial boats prior to requiring other responsible parties to expend resources.

- <u>There is no justification for the interim schedule</u>. There is no justification for or explanation as to how the interim schedule was derived and/or what technical studies or modelling it was based on. Thus, it appears arbitrary and unclear if the 20%, 40%, and 60% reductions are even attainable according to the compliance timeframes within the Implementation Schedule.

Although a similar comment was provided in the County comment letter "Comments on Proposed Basin Plan Amendments to Incorporate Total Maximum Daily Loads for Copper and Non-TMDL Action Plans for Other Metals in Newport Bay", August 24, 2018 (hereinafter – County 2018 Comment Letter), the response to this and other, similar comments <u>did not</u> directly address the comment regarding the lack of justification for and assessment that a 12 year timeframe would allow the time necessary to fully implement the Implementation Plan and assess progress/improved water quality. As a result, this comment is being submitted with the request that this be fully considered prior to adoption of the Proposed BPA.

Recommendation: [Note: These recommendations are not italicized in order to distinguish them from Board staff's responses]

- Modify/extend the final compliance timeframe so that it allows the time necessary to prioritize the activities and develop, receive approval for, implement, and assess the effectiveness of the required plans and activities.

- Delete the interim schedule within the Implementation Plan and Schedule table.

Response 5 – <u>See Responses to the County's comments 2.7, 2.8 and 2.9, above.</u>

Santa Ana Water Board staff's proposed final compliance schedule of "as soon as possible but no later than 12 years from the effective date of the TMDLs" reflects the Water Board's and the public's interest in correcting Cu impairment in an expeditious manner, while realizing the practicalities of implementing measures to achieve that goal and allowing for adaptive implementation of measures to reduce Cu discharges. The Implementation Plan in the proposed

Cu TMDLs reflects the Water Board's recognition of the need to revisit the TMDLs and refine them, as appropriate. (See Task 6 in the recommended Implementation Plan.) Moreover, 12 years is a reasonable timeframe given that the USEPA's Metals TMDLs, including Cu, which these proposed Cu TMDLs will supersede if adopted, were adopted two decades ago.

Finally, the proposed implementation plan submitted by the County et al. on January 28, 2022, included a proposed, extended schedule for the actions identified in that plan. However, as previously discussed (see, for example, Response to Comment 2.7, above), the County plan failed to articulate an acceptable strategy to achieve the TMDLs and correct impairment of Bay waters due to Cu within a reasonable timeframe under the circumstances.

[Comment 6]

6. The Regional Board should update the monitoring data cited in Proposed BPA such that the analysis reflects current conditions and more accurately characterizes the spatial and temporal extent of the impairment (Problem Statement).

The County is concerned that aged datasets were used for the impairment assessment and, as a result the analysis does not reflect the current conditions in Upper and Lower Newport Bay. Specific issues include:

1. Throughout the Staff Report, data as old as 1997 and a limited amount of information as new as 2019 were cited, some used for impairment assessment; while in Section 4.2.1 (page 22) it was stated that data from 2002 through 2014 were assessed in this TMDL; However, County of Orange's data were truncated to include only those from 2006-2009 but the County, City of Newport Beach, DPR, and the Southern California Bight program have continued to collect water and sediment samples through 2020 which are not utilized or fully referenced in the Problem Statement in regards to the Impairment Assessment.
2. The Upper Bay was dredged in 2006-2010 where nearly 2 million cubic yard of sediment was removed; significant dredging took place in the Lower Bay during and after this period. Dredging fundamentally changes sediment characteristics and has to be considered as a part of the assessment regarding sediment quality trends.
3. The date range used in the impairment assessment does not accurately reflect current conditions and the datasets referenced in the Proposed BPA and Staff Report are concerning for the following reasons:
    a. The water column datasets presented in the Staff Report include a substantially limited analysis of the spatial and temporal variability that does not capture current conditions, particularly in the Upper Bay. The datasets that were used represent conditions, on average, more than 13 years ago and, in some instances, do not reflect the changes resulting from the 2006-2010 Upper Newport Bay ecological restoration dredging project.
    b. Since ~2012, portions of Upper Newport Bay have been meeting the 3.1 µg/L dissolved copper water column numeric target on consistent basis (**Attachment B, Figures 1 and 2**).

c. Since 2013, none of the County's or Southern California Bight datasets collected in Upper Newport Bay indicate a sediment copper concentration above 270 µg/g with the presence of toxicity.

d. Since 2015, the total number of samples collected in Upper Newport Bay by the County, Southern California Bight, and Newport Bay Bio-Trend Monitoring Program with sediment copper concentration above 96.5 mg/kg (the Proposed BPA sediment target) are less than the number of exceedances in the binomial distribution (total samples = 120, samples with concentrations greater than 96.5 mg/kg = 2, binomial distribution exceedances for sample size = 11). Thus, the Upper Bay does not meet the SLP for listing a pollutant/water body combination based on this dataset (**Attachment B, Figure 3**).

e. Since 2015, the total number of samples collected in Lower Newport Bay by the County, Southern California Bight, and Newport Bay Bio-Trend Monitoring Program with sediment copper concentration above 96.5 mg/kg (the Proposed BPA sediment target) are less than the number of exceedances in the binomial distribution (total samples = 63, samples with concentrations greater than 96.5 mg/kg = 3, binomial distribution exceedances for sample size = 6). Thus, the Lower Bay does not meet the SLP for listing a pollutant/water body combination based on this dataset (**Attachment B, Figure 4**).

Recommendation: [Note: these recommendations are not italicized in order to distinguish them from Board staff's responses]

- The full dataset (spreadsheet) that was used as the basis for the analyses described in the Staff Report and Proposed BPA as well as the analyses that were conducted, and all assumptions and calculations should be made available to the public for review with an additional comment period prior to adoption of the Proposed BPA.

- The Problem Statement should be revised and limited in geographic scope to portions of the Bay where current data indicate water or sediment concentrations are greater than the proposed numeric targets and impairment assessment should not be extended to the entire Upper and Lower Bay.

Response 6 – Santa Ana Water Board staff have previously responded to comments by the County (and others) concerning the data used to assess impairment in the Bay. (See, for example, Responses to the City of Newport Beach comment 3 (Responses to 2016 Comments Document (2018)); Responses to the City's Comments 1 ,6, 7, above; and Response to the County's Comment 3 (Responses to August 2018 Comments Document (2021)). Briefly, in the initial Impairment Assessment, Water Board staff evaluated data from 2002-2014, and determined impairment per the State Listing Policy (SLP). Additional analyses per the SLP were conducted using more recent data provided by the City (2015/2016, 2019) and DPR (2019). While there have been, and continue to be, ongoing monitoring efforts, it is not reasonable to postpone adoption of the proposed TMDLs and commencement of implementation actions that address long-standing impairments, in order to incorporate the results of all new data collection efforts into these Cu TMDLs. Water Board staff's analysis of water quality data for the Bay continue to confirm impairment of both Upper and Lower Newport Bay due to dissolved Cu. Clearly, there is an interest in and need to collect and consider new data, and the proposed Cu TMDLs require additional monitoring to evaluate water quality conditions in the Bay and the effectiveness of Cu reduction strategies that are implemented. Existing and new data may be used to prioritize actions in localized areas, if appropriate. Moreover, if and when new data indicate that TMDL revisions are appropriate, the Santa Ana Water Board can consider such revisions. I

*We agree that dredging "*fundamentally changes sediment characteristics" *in the areas dredged and must be "*considered as a part of the assessment regarding sediment quality trends"*. For areas of the Bay that were dredged, no pre-dredge data were used in Santa Ana Water Board staff's Impairment Assessment.*

Per the State Listing Policy, findings of toxicity in the Bay are not necessary to demonstrate water column impairment. Water Board staff has made this point repeatedly. (See, for example, Response to G. Newmark's Comment 1, above.)

Note that the sediment target referenced in these comments has been revised. (See Response to the County's Comment 2.3, above.) These revisions were discussed with the County and other dischargers at recent technical meetings, and the revised target appears to have discharger concurrence. Santa Ana Water Board staff agree that available data are not sufficient to make a determination of impairment due to sediment Cu per the Sediment Quality Provisions. In light of sediment Cu concerns, however, (including exceedances of the sediment Cu ERM) the proposed Cu TMDLs require monitoring per the SQOs methodology in the Sediment Quality Provisions to assess sediment quality conditions. See also Response to Irvine Company's Comment 2, above.

Santa Ana Water Board staff have provided all the data used in staff's Impairment Assessment to interested parties, as previously requested.

There is no sound technical or legal rationale to limit the Problem Statement and Impairment Assessment to problematic areas of the Bay. The dischargers do, however, have the opportunity to focus corrective actions in such areas.

[Comment 7]

7. The proposed SQO based numeric target is counter to the intent of the California Sediment Quality Objectives policy and needs to be removed unless and until a technically valid value is developed ~~and a revised sediment numeric target needs to be developed by the Regional Board~~. (Numeric Targets for Copper).
Note that strikeout above is in the County's original comment.

The use of a single line of evidence (LOE) in a multiple lines of evidence (MLOE) approach is counter to the methodology and intent of the California Sediment Quality Objectives (SQO) policy and implementation approach. The Sediment Quality Assessment Technical Support Manual (dated June 2021) states, "*While each Line of Evidence (LOE) provides useful information and can be measured independently, all three LOEs are needed to provide a more accurate and reliable measure of sediment quality*." Adopting the proposed sediment chemistry numeric target based on the single LOE is counter to the California SQO policy and scientifically unsupported. Additional concerns with the approach for the sediment numeric target in the Proposed BPA are outlined below.

- The Sediment Quality Provisions are designed as an integrative methodology utilizing three lines of evidence (LOE): chemistry, toxicity, and benthic community data, which are meant to be used in concert with each other and not as independent, single lines of evidence to assess sediment quality. While each LOE provides beneficial information and can be measured independently, all three LOEs are needed to provide an accurate and reliable measure of sediment quality, and thereby benthic community risk. This is reiterated throughout the Sediment Quality Assessment Technical Support Manual (Bay et al., 2014) and the Water Quality Control Plan for Enclosed Bays and Estuaries – Part 1 Sediment Quality (SWRCB, 2008). In addition, in the Amendments to the Water Quality Control Plan for Enclosed Bays and Estuaries of California – Sediment Quality Provisions (Beegan and Faick, 2018) states "*Results for a single LOE shall not be used as the basis for an assessment*." And that "*Evidence of both elevated chemical exposure and biological effects must be present to indicate pollutant associated impacts.*"

- The chemistry LOE consists of two sub-components, the Chemical Score Index (CSI) and the California Logistic Regression Model (CA LRM) which, when combined, are meant to provide a comprehensive understanding of the chemical risk to benthic communities. The Regional Board proposed a numeric target of 96.5 mg/kg copper based on a combination of the SQO CSI "low exposure" threshold and a range calculated using the CA LRM model for copper. Both approaches represent a misapplication of the chemical exposure indices and are in direct contradiction with the scientific basis of these indices: that they are only to be used as indicators of chemical exposure for the mixture of contaminants in the sediment, not individual contaminants such as copper. The Water Quality Control Plan for Enclosed Bays and Estuaries – Part 1 Sediment Quality (SWRCB, 2008) states in Section H (page 20) that "*None of the individual LOE is sufficiently reliable when used alone to assess sediment quality impacts due to toxic pollutants. Within a given site, the LOEs applied to assess exposure…may underestimate*

or overestimate the risk to benthic communities and do not indicate causality of specific chemicals…. Each LOE produces specific information that, when integrated with the other LOEs, provides a more confident assessment of sediment quality relative to the narrative objective." The approach used within the Proposed BPA does not provide the resolution or accuracy necessary to determine sediment quality impacts.

The CSI is based off of a model that uses chemistry data to predict the occurrence and severity of benthic community disturbance. There are many factors that need to be considered beyond a single chemical concentration to determine its impact on a benthic community (e.g., AVS-SEM, total organic carbon, grain size, etc.). The Sediment Quality Assessment Technical Support Manual (Bay et al., 2014) states in Chapter 6 (page 101) that "*it is important to recognize that the CA SQO assessment does not identify the cause of impacts to the benthic community and the chemical indices making up the Chemistry LOE are not equivalent to effects thresholds for specific contaminants. The CA SQO assessment results are intended to be used as a descriptor of sediment quality with respect to contaminant effects, but not as clean up criteria or a determination of the specific cause of water body impairment*." Furthermore, the Water Quality Control Plan for Enclosed Bays and Estuaries – Part 1 Sediment Quality (SWRCB, 2008) states in Section H (page 20) that "*The chemistry LOE...including the threshold values (e.g., CSI and CA LRM), shall not be used for setting cleanup levels or numeric values for technical TMDLs.*" But rather "*Guideline development should only be initiated after the stressor has been identified. The goal is to establish a relationship between the organism's exposure and the biological effect. Once this relationship is established, a pollutant specific guideline may be designated that corresponds with minimum biological effects*."

- Since the methodology that was used to develop the sediment target is not consistent with the methodology in the SQOs, it should be subject to peer review.

- Since the methodology that was used to develop the sediment target is not consistent with the methodology in the SQOs, it should be subject to peer review.

As such, utilizing the copper CSI threshold concentration as a numeric compliance target (as within the Proposed BPA) is not appropriate and is inconsistent with the SQO guidance and methodology.

Recommendation: [Note that these recommendations are not italicized in order to distinguish them from Water Board staff's responses.]

- Delete the current numeric target for copper in sediment of 96.5 ug/g in the Proposed BPA.
- If the Regional Board intends to incorporate a sediment target in the Proposed BPA
    - The Staff Report must provide the supporting analyses that identify sediments as a source of water column-based copper that needs to be controlled (p.5, Source Analysis, footnote 5) or a sink for copper requiring a numeric target for protecting beneficial uses (p. 4, Numeric Targets).

- The target needs to be based on an approach that is consistent with the SQO Policy and receive scientific peer review prior to incorporation into a BPA.

Response 7 – The sediment target has been revised. (See Response to Comment 2.3, above.)

[Comment 8]

8. The Source Analysis Section should acknowledge that, as a result of the Permittees' efforts, the Tributaries are meeting the mass-based WLA and no further reductions or actions are needed. (Source Analysis). (See Comment 3.)

The Proposed BPA should include a statement acknowledging that tributary runoff is currently meeting the mass-based WLAs, and no further load reduction is required for upstream dischargers located in the major tributaries (San Diego Creek and Santa Ana-Delhi Channel). This acknowledgement is critical for the following reasons:

- The 2002 USEPA Toxics TMDL required a 50% reduction from tributaries and based on updated monitoring records evaluated by the Regional Board, the 50% reduction has been achieved.

- The John Wayne Airport (JWA) evaluated the tributary copper loading (**Attachment C**) using the same methodology conducted by the Regional Board based on newer datasets from 2009-2010 to 2019-2020 reporting years. This evaluation further supports the finding presented in the Staff Report. Thus, based on the load analyses conducted by both the Regional Board from 2006-2009 and JWA (for more recent data), the tributaries have been in attainment with the allocation for 14 years.

- Staff Report, Section 5.6.3.1 (Page 107) states: "*Tributary runoff, the second significant source of Cu input to the Bay, is currently meeting the assigned allocations and no further reductions are necessary at this time.",* and similar language was also re-iterated several times by the Regional Board in the response to comments documents. However, the Proposed BPA does not include a similar acknowledgement. Thus, a corresponding statement should be included to provide a better understanding of the current status of tributaries and support for the approach within the implementation plan task for continued monitoring to confirm that the tributaries continue to meet the mass-based copper WLA.

- To further support this finding, the Regional Board should utilize all of the available monitoring data, including the more recent data sets evaluated by JWA for any future analyses (**See Attachment C**).

Recommendation: {Note that the recommendation is not italicized in order to distinguish it from Board staff's response.]

- Update page 5 of the proposed BPA to include the following sentence:

  Known sources of Cu include… The tributary runoff is meeting the assigned WLAs (i.e., achieving the load reduction requirement set forth in the 2002 USEPA's Toxics TMDLs) and therefore, no further reductions are necessary at this time for upstream dischargers located in the major tributaries. Cu loads in storm drain runoff are small compared to the two largest sources but may have localized impacts in areas near storm drains…

Response 8 – The Staff Report 2022 properly describes the status of compliance with the proposed mass-based WLAs for tributary runoff at this time. In addition, the draft Basin Plan amendment has been modified to acknowledge current compliance with the tributary and storm drain mass-based allocations; see draft BPA, Implementation Plan, Compliance Schedule. It is not appropriate to reference the WLAs in USEPA's 2002 Cu TMDLs since, if approved, the Water Board's Cu TMDLs will supersede USEPA's Cu TMDLs.

[Comment 9]

9. The Implementation Plan and Schedule table needs to be clarified and modified so that it is clear who is responsible for what, what the schedule is, and where efficiencies can be achieved. (See Comment #10.)

In general, the Implementation Plan and Schedule should be significantly revised to, at a minimum, identify the following:

Phasing of tasks and TMDL reconsideration
Date for completion
Action required
Implemented by or responsible party – Who the action is required to be implemented by

To this end, the table should include this information for each Task (e.g., 1, 2), Sub-task (e.g., 1.1, 2.1), Sub-sub-task (e.g., 1.1.1, 2.1.1), etc. within separate rows so that it is absolutely clear who is responsible for what tasks and when each task is to be completed.

Response 9 – Santa Ana Water Board staff's recommended Implementation Plan for the proposed Cu TMDLs identifies the dischargers responsible to complete the identified tasks and establishes time schedules whereby specific actions are to be implemented. These implementation tasks include the development of proposed implementation plan(s) by the dischargers to achieve the TMDLs. The dischargers' implementation plans must include schedules based on the final and interim compliance schedules in the proposed TMDLs. The dischargers can and should work together to develop and implement plans that optimize the efficiency of actions proposed and taken to meet the TMDLs. However, each discharger is responsible for submitting an implementation plan if dischargers do not submit a plan jointly. Language to this effect has been added to tasks in the recommended Implementation Plan, as appropriate. (See Tasks 1.1.1, 2.1.1, 3.2.1, 4.1 – Table 9 and the text preceding Table 9 in the BPA.)

Examples of related, specific concerns with the implementation table that should be discussed as a part of the upcoming workshop include the following:

- [Comment 9.1] Clarify who is responsible for each Implementation Task (it should be noted that, until these Tasks are assigned to the responsible parties, it has not been determined if additional comments from the County are warranted at this time).
    - Task 1 – Reduce Copper (Cu) discharges from Cu antifouling paints (Cu AFPs) on recreational and commercial boats – no responsible parties are identified.
    - Task 1.2 – Reduce Cu Discharges from Cu AFPs on Recreational and Commercial Boats (Recommended Implementation Tasks) – no responsible parties are identified.
    - Task 6 – Submit Updated Cu TMDLs Report, and Reevaluate and Revise the TMDL – no responsible parties are identified.

  Response 9.1 –The dischargers responsible to address each of the subtasks identified are identified in the tasks in the recommended Implementation Plan.

- [Comment 9.2] Clarify which Implementation Tasks are the responsibility of and have the commitment for completion by the Regional Board.
    - Task 3.1 – The Santa Ana Water Board will revise existing WDRs and NPDES permits – the Regional Board should be listed under the Responsible Party column.
    - Task 5 – The Santa Ana Water Board will issue new orders and revise existing orders to implement the Cu TMDLs – the Regional Board should be listed under the Responsible Party column.
    - Task 6 – Submit Updated Cu TMDLs Report and Reevaluate and Revise the TMDL – the Regional Board should be listed under the Responsible Party column and there should be a date for completion. The Regional Board should commit to the completion of the Implementation Plan and not qualify it as "subject to staffing and resource availability" unless the same is afforded to all responsible parties.
- *Response 9.2 – Task 5 in the proposed TMDLs Implementation Plan (Table 5-8) clearly identifies the Santa Ana Water Board as the agency responsible for the task. There is no need to repeat that information in the responsible parties column and the Water Board is not a responsible party for implementing the TMDLs. The proposed Cu TMDLs compliance schedule is "as soon as possible but no later than 12 years from the effective date of the TMDLs". Within that framework, the dischargers are to identify recommended tasks and schedules whereby the TMDLs are to be achieved. This approach recognizes that while dischargers' staffing and resource availability may be an issue, water quality standards impairment must be corrected in a timely manner. The dischargers can address these issues in their proposed implementation plan(s) and schedule(s) by prioritizing the most*

critical areas/tasks. The need for action to correct Cu impairment in the Bay should come as no surprise to the dischargers, especially given the long-standing nature of the impairment, the establishment of USEPA's Cu TMDLs in 2002 and early CEQA Scoping Meetings in July 2015. See also Response to Comment 2.7, above.

- [Comment 9.3] Clarify the approach and logistics for the development and implementation of the Implementation Plans.
  There are four types of Implementation Plans that are required (Tasks 1.1, 2.1, 3.2, 4.1) from multiple dischargers (followed by, in some cases additional requirements for the submittal of follow up plans), many of which have duplicative requirements and/or require a wide range of assessments from each type of discharger.
  The following is unclear
  a) Why four separate plans are necessary from each discharger;
  b) Why each implementation plan has to be submitted by each individual discharger;
  c) Who is specifically responsible for what aspects of the required elements of the implementation plans; and
  d) How each individual discharger is expected to meet all of the requirements within each of the Tasks and Sub-tasks.

  The table below is an example illustrating the clarity expected of the implementation plans.

  Response 9.3 – As the County is aware from extensive experience working with the Santa Ana Water Board to implement various TMDLs in Newport Bay and its watershed, the Water Board welcomes coordinated efforts among the dischargers to develop and implement the required TMDL tasks in order to optimize the use of resources and the efficiency and timeliness of implementation. Similarly, the Water Board anticipates that the four plans identified in the proposed Implementation Plan can be addressed in one implementation plan submitted by the dischargers. While the Santa Ana Water Board encourages a coordinated approach, the Water Board cannot dictate it.

  The table offered in the County's comments reflects a clear understanding of the tasks to be undertaken to implement the TMDLs requirements. The concern with respect to responsible parties has been addressed above. (See Responses to the County's Comments 9 and 9.1. See also the table in Appendix 1 at the end of the comments.)

- [Comment 9.4] Allow for the submittal of either Individual or Regional Implementation Plans
  As noted above, there are four types of Implementation Plans that are required (Tasks 1.1, 2.1, 3.2, 4.1) from multiple dischargers. In addition to allowing for the consolidation of these requirements into one,
  comprehensive plan, the "Implementation Plan" section should also allow for

Individual or Regional plans to be submitted so that watershed stakeholders (including, but not limited to, County, watershed cities, Irvine Ranch Water District, the Irvine Company, Industrial General Permittees, and/or Construction General Permittees) could leverage their resources and coordinate their activities.

Response 9.4 – See Response to the County's Comments 9 and 9.3, above.

- [Comment 9.5] Delete the requirement to assess impairment consistent with the State Listing Policy (SLP)
  The impairment assessments that have been conducted within Upper and Lower Newport Bay for the purposes of the 303(d) List/California Integrated Report and in accordance with the State Board's Listing Policy assess impairment for the "water body" (Upper Newport Bay or Lower Newport Bay), not individual monitoring locations. However, some of the Implementation Tasks include requirements to assess impairment consistent with the SLP at individual monitoring locations. Task 4.3 inappropriately requires this analysis as a part of the assessment of data.

- *Response 9.5 – This comment seems to contradict the County's recommendation in Comment 6, above. That recommendation is to limit the Problem Statement in the proposed Basin Plan amendment to those portions of the Bay where current data indicate exceedances of the numeric targets and to not extend impairment assessment to the entire Upper and Lower Newport Bay. Task 4.3 of the proposed Cu TMDLs Implementation Plan is intended to determine whether or not there is evidence of impairment, which may include acute or chronic adverse impacts on the biota, in specific areas of the Bay due to storm drain discharges. Currently available data are not sufficient to address this issue.*

- [Comment 9.6] Clarify who the responsible parties are for the recommended implementation tasks in Task 1.2 and allow for modification of the requirements based on the jurisdiction and authorities of each responsible party.
  Task 1.2 includes a wide range of "recommended implementation tasks" that, if not included within the proposed implementation plan, must include a justification as to why they are not included along with "documentation to demonstrate that selected tasks are expected to achieve the TMDLs". There are two concerns with this task:
  - It is unclear what sort of documentation and demonstration would be required for selected implementation tasks (if a subset of tasks are ultimately selected for implementation) as well as the level of justification for tasks that were not selected. More clarity is needed on the expectation for this requirement.
  - Although the County can assist with public education and outreach to marina owners/operators, individual boat owners, underwater hull cleaners, and boatyard owners/operators, the County does not have the jurisdiction or authority to implement a number of the defined tasks including the following examples:
    - "Require" underwater hull cleaners to use BMPs (the County can educate, but not require and enforce)

- Develop and implement a diver certification, permit or licensing program.
- Conditions and requirements instituted by the City of Newport Beach and Orange County to reduce Cu AFP discharges to achieve TMDL requirements by dischargers.
- Convert boats/require boats to convert from current Cu AFPs to lower leach rate Cu AFPs or non-biocide AFPs.
- Provide controls/incentives for marina owner/operators, and individual boat owners in marina leases, permits, or other mechanisms, such as the required use of BMPs and/or the use of incentives to boaters who convert to lower leach rate Cu AFPs or non-biocide AFPs.

Recommendation: [Note that these recommendations are not italicized in order to distinguish them from Board staff's responses]

- Modify the "Implementation Plan and Schedule for Copper TMDLs" table to address the comments above.
- Clarify how dischargers are to document and demonstrate that selected tasks (within Task 1.2) are expected to achieve the TMDLs.

Response 9.6 – See Responses to Comments 9, 9.3, above. Pursuant to the Implementation Plan in the proposed TMDLs, the dischargers are to propose an implementation plan(s) to achieve the TMDLs for consideration by the Water Board, and to implement that plan(s) upon Santa Ana Water Board approval. This approach provides considerable latitude to the dischargers to propose strategies that the dischargers can implement and with which they expect to achieve compliance. It is infeasible to identify the specific documentation that may needed to demonstrate the efficacy of these strategies, given the speculative nature of what the dischargers may propose. Where the dischargers assert a jurisdictional issue to implement one or more strategies, then that issue should be documented.

[Comment 10]

10. The Copper TMDLs need to include a monitoring section to provide clear direction regarding how the monitoring should be conducted and data assessed consistent with the Implementation Plan. [See Comment 9.]

The "Implementation Plan for Copper" requires that the responsible parties (individually or collectively) conduct water column and sediment monitoring at multiple locations within Upper and Lower Newport Bay and tributary and storm drain runoff locations. However, there is no guidance or foundational information provided to guide the monitoring requirements.

- Similar to the Selenium TMDLs that were adopted by the Regional Board, the Proposed BPA should include a "Monitoring" section that allows for Individual Monitoring or for a

Regional Monitoring Program (this is especially important given the range of monitoring that is currently contemplated within the Implementation Plan tasks). The baseline parameters for the submittal of either an Individual Monitoring Plan or a Regional Monitoring Plan could also be identified through discussions with stakeholders such as: Elements that need to be included and the purpose of each;

- Locations of the assessment points for the WLAs and Las, monitoring parameters, and frequency of sample collection;
- Locations/boundary for the assessment area monitoring for the attainment of TMDL targets, monitoring parameters, and frequency of sample collection;
- Thresholds/triggers for follow up actions; and
- Quality assurance and quality control measures.
- For example, for a Regional Monitoring Program – the assessment areas[39] and assessment points[40] for the Tributary and Storm Drain mass-based WLAs could be as follows:
- San Diego Creek Subwatershed – freshwater assessment point San Diego Creek at Campus Drive
- Santa Ana-Delhi Channel Subwatershed – freshwater assessment point Santa Ana-Delhi Channel upstream of Irvine Avenue (provided it is not diverted)
- Since San Diego Creek and Santa Ana-Delhi Channel account for 88% of drainage area and more than 95% of freshwater flows into the Bay[41], monitoring of these assessment points and corresponding assessment areas would provide the best information on the freshwater input of copper into the Bay.

Recommendation: [Note that these recommendations are not italicized in order to distinguish them from Board staff's responses]

- Include a "Monitoring" section within the TMDLs and include the information identified above (with additional stakeholder collaboration).
- Modify Implementation Task 3.2.1 language – last sentence: Existing monitoring and reporting for MS4 systems may be utilized for this task on behalf of all NPDES permittees located within tributaries that are currently monitored.

Response 10 – The dischargers are required to submit their own monitoring plan(s) that includes a proposed sampling plan and data assessment methodology. As stated in prior comments, ongoing technical meetings with the dischargers are expected to assist the dischargers in formulating these plans. See Response to the County's Comments 2.7, 9 and 9.3, above. Implementation Plan Task 3.2.1 language makes clear that MS4 permit monitoring may be used to satisfy the requirements of this Task: "Existing monitoring for MS4 systems may be utilized for this task".

[Comment 11]

11. The Implementation Plan should acknowledge that upstream NPDES permittees have the option to coordinate with the County on implementing the TMDL and to use the County's MS4 monitoring data (flow and water quality) to demonstrate continued compliance with the mass-based WLAs.

The "Implementation Plan for Copper TMDL" requires that the responsible parties (individually or collectively) conduct water column and sediment monitoring at tributary and storm drain runoff locations. However, it does not explicitly state that current municipal monitoring programs can complete this monitoring as part of a regional effort and on behalf of other, participating NPDES Permittees. Language modifications are recommended for the following reasons:

- The runoff from dischargers within major tributary watersheds enters the MS4 system, mixes with other runoff and therefore is accounted for in the MS4 monitoring program performed at the downstream points of the tributaries prior to discharge to Upper Newport Bay. Additional monitoring by upstream dischargers does not provide value in terms of determining the continued compliance status of the mass-based WLAs.
- Page 11 of the Proposed BPA states: *The dischargers are encouraged to coordinate their efforts to implement these TMDLs to optimize efficacy and the use of resources*. Allowing upstream NPDES Permittees (including those subject to Phase II MS4 stormwater permits, Industrial General Permit, Construction General Permit, Caltrans Permit, etc.) to work with the County (i.e., MS4), to utilize the existing monitoring and certain implementation program(s) to meet BPA Implementation Plan requirements.
- It is impractical for upstream dischargers that are part of "Other NPDES Permittees" to demonstrate their compliance with the mass-based WLA, especially for entities such as Caltrans, which has many discrete discharge points throughout the watershed. Without any guidance in the TMDL to determine each individual discharger's load portion from the overall 156 lbs. load allocation that covers a variety of permit categories (as listed above), the proposed wasteload allocation for "Other NPDES Permittees" is not determinable.
  Alternatively, "Other NPDES Permittees" should be allowed to rely on County monitoring for compliance with TMDL Implementation Plan requirements.
- Page 77-78 of Staff Report, Section 5.6.0 states: *Dischargers responsible for meeting the allocations for Cu discharges from tributaries and storm drains include the City of Newport Beach, the County of Orange and other municipal separate storm sewer system (MS4) permittees in the drainage area, and Caltrans.* The statement in the staff report is inconsistent with the Responsible Discharger list identified in Task 3.

Recommendation: [Note that this recommendation is not italicized in order to distinguish it from Board staff's responses.]

- Modify Implementation Task 3.2.1 language – last sentence: Existing monitoring and

reporting for MS4 systems may be utilized for this task on behalf of all NPDES permittees located within tributaries that are monitored.

Response 11 - The dischargers have the ability to propose this coordinated approach in their proposed monitoring programs. See also Response to the County's Comments 9 and 9.3, above.

[Comment 12]
12. Clarify that Implementation Plan Task 4 only applies to major channels directly discharging to Newport Bay.

Clarity should be provided with respect to the applicability of Task 4 by stating that the task only applies to discharge of storm water from San Diego Creek and Santa Ana-Delhi channels, not to the tributary watersheds. The clarification will provide clarity and prevent permit writers from translating additional sediment and water column monitoring requirements in Task 4 to all tributary dischargers.

Recommendation: [Note that this recommendation is not italicized in order to distinguish it from Board staff's response]

- Modify Implementation Task 4 title – 4) Evaluate local impacts of Copper (Cu) discharges from larger storm drains (El Paseo, Carnation, Polaris, PCH West, Arches West and Arches East).

Response 12 – The title of Task 4 has been modified to clarify that this Task applies to discharges from larger storm drains (e.g., El Paseo, Carnation, Polaris, PCH West, Arches West and Arches East) that discharge directly to the Bay.

[Comment 13]
13. Clarify the definition of "storm drains", "tributary"," major tributaries", and "tributary/storm drains" across the TMDL.

- The terms "Storm Drains" and "Storm Drain Runoff" are referred to in multiple places in the Proposed BPA and Staff Report to refer to one of the sources of copper loads to Newport Bay – direct discharges from storm drains into the Bay. However, these are not defined terms and are referred to individually and combined with Tributary Runoff in the following sections:
  - Source Analysis – Storm Drain Runoff – individual loading value
  - Mass-based WLAs and Las – Tributary and Storm Drain – combined loading values

  Based on page 5 of the Proposed BPA, storm drain runoff refers to "urban runoff from storm drains that empty **directly** into Newport Bay". This term should be defined and reiterated when storm drains are referenced in conjunction with the term Tributary

Runoff in other sections to avoid potential confusion of a broader interpretation of the terms (i.e., any storm drains that discharge to the tributary, indirectly or directly into Newport Bay).

- The terms "Tributary" and "Major Tributaries" and "Tributary Runoff" are referred to in multiple places in the Proposed BPA and Staff Report to refer to one of the sources of copper loads to Newport Bay – direct discharges of urban runoff from major tributaries and upstream sub-watersheds into the Bay. However, these are not defined terms and are referred to individually and combined with Storm Drains in the following sections:
  - Source Analysis – Tributary Runoff – individual loading value
  - Mass-based WLAs and Las – Tributary and Storm Drain – combined loading values

  These terms should be defined and reiterated when tributary is referenced in conjunction with the term Storm Drain Runoff in other sections to avoid potential confusion with the interpretation of the terms.

Recommendation: [Note that these recommendations are not italicized in order to distinguish them from Board staff's responses}

- Define the term "Storm Drain Runoff" as urban runoff from storm drains that discharge directly into Newport Bay and reiterate this definition such as footnotes to Tables – Summary of Copper Loads to Newport Bay (Source Analysis); Mass-Based Allocations of Copper in Newport Bay (TMDLs, WLA and LA, and MOS); and Implementation Plan.
- Define the terms "Tributary", "Major Tributaries", and "Tributary Runoff" as direct discharges of urban runoff from major tributaries and upstream sub-watersheds into the Bay and reiterate this definition such as footnotes to Tables – Summary of Copper Loads to Newport Bay (Source Analysis); Mass-Based Allocations of Copper in Newport Bay (TMDLs, WLA and LA, and MOS); and Implementation Plan.
- Specify, as recommended in Comments #4 and #10, that copper loading from freshwater input shall be quantified by monitoring San Diego Creek and Santa Ana-Delhi channels, which account for more than 95% of freshwater input to the Bay.

Response 13 - Modifications to the draft Basin Plan amendment have been made to address these comments. See draft BPA, Section on Source Analysis for Copper (Cu): definition of storm drain runoff and tributary runoff have been added. See Draft BPA, Note 1 Table 6 Mass-Based Allocations for Copper (Cu) in Newport Bay: references the Source Analysis description of tributary and storm drain runoff and describes where the assessment of tributary and storm drain wasteload allocations is to be assessed.

[Comment 14]

14. The BPA and Staff Report should have a full technical edit to ensure that the remaining errors are corrected prior to adoption.

A. During review of the Proposed BPA, several editorial issues were noted that should be

corrected prior to adoption. Examples of the issues that were identified are below (however, this is not an exhaustive list due to the time constraint for the review):

1. Update Footnotes in Mass-Based Allocations Table – Within the BPA, the "Mass-Based Allocations for Copper in Newport Bay" table (page 8) has a series of footnotes that are referenced in the table with a wide range of indicators including ^, #, *, +, ++. The use of these characters instead of numeric (see the "Numeric Targets for Copper in Water and Sediment in Newport Bay" and "Summary of Copper Loads to Newport Bay" tables) or alphabetic indicators presents confusion to the reader when trying to understand the various qualifiers. In addition, the line item "Boats" has an indicator for a footnote – 7090+, however there is no corresponding qualifier within the footnotes themselves.
2. Include reference for Statewide General Permits – Implementation Plan, Task 3.1 should read "Existing permits, including the MS4 storm water permit and IGP/CGP, will be revised as necessary to implement the Cu TMDLs' requirements. New permits will implement applicable Cu TMDLs requirements."

B. During review of the Staff Report, several editorial issues were noted that should be corrected prior to adoption. Examples of the issues that were identified are below (however, this is not an exhaustive list):

1. Table of Contents – the list of tables should be realigned/reformatted for readability
2. Various locations – some of the text is black and other grey
3. Section 1.1 Environmental Setting (page 6) – the square mileage should be – watershed 152 (not 154) and San Diego Creek watershed 119 (not 105)
4. Section 1.1 Environmental Setting (page 6) – second paragraph from bottom. "…covering 49 square miles, include the San Diego Creek, Santa Ana-Delhi Channel, …" should be revised to: "…covering 33 square miles, including the San Diego Creek, Santa Ana-Delhi Channel, …"
5. Section 1.1 Environmental Setting (page 7) – 1st paragraph (Upper Newport Bay), line 3: should be "Ridgeway's rail" not "Ridgway's er rail"
6. Section 1.1 Environmental Setting (page 7) – 1st paragraph (Upper Newport Bay), line 4: should be "Several sediment basins are constructed…" not "Several sediment basins are found…"
7. Section 1.1 Environmental Setting (page 7) – 1st paragraph (Upper Newport Bay), line 2 from bottom: should be "Note that swimming, fishing, and shellfish harvesting are not allowed…." (add 'swimming' before 'fishing').
8. Section 1.1 Environmental Setting (page 7) – 2nd paragraph (Lower Newport Bay), last sentence, revise to: "The entire Newport Bay up to San Diego Creek at Campus Drive and Santa Ana-Delhi Channel at Mesa Drive is subject to tidal influence."
9. Section 4.1.3 Narrative Water Quality Objectives (page 18) – *Sediment Quality Provisions* – In subsection a. Aquatic Life – Benthic Community Protection, there is an asterisk after 'bays*' that is not footnoted or unexplained.
10. On pages 79 and 91, the subsections and titles are listed in table of contents style and is inconsistent with other parts of the Staff Report.

Recommendation: [Note that this recommendation is not italicized in order to distinguish it from Board staff's response.]

- Review and modify the Staff Report to address the errors noted above as well as others, as needed.

Response 14
Recommendations noted. Appropriate changes have been made to the draft TMDL documents, as delineated in the underline/strikeout versions of the documents made available in advance of the public hearing.

Attachments to the County's Letter – August 30, 2018

Attachment A-1 – County of Orange Comment Letter dated October 17, 2016
Attachment A-2 – County of Orange Comment Letter dated August 24, 2018
Attachment B – Water Quality and Sediment Data Analyses
Attachment C – Evaluation of Copper Loading for Newport Bay Tributaries March 2021

Response regarding Attachments – Responses to the County's comment letters (Attachments A-1 and A-2) have been provided. See Response to 2016 Comments Document (2018) and Responses to August 2018 Comments Document (2021), respectively.

The consideration of additional data, such as that provided in Attachment B, is discussed in Response to the County's Comment 6, above. The evaluation of Cu loading for Newport Bay Tributaries (prepared for John Wayne Airport) is addressed in Response to the County's Comment 8, above.

John Wayne Airport (JWA)

Letter from John Wayne Airport, Orange County regarding "Basin Plan Amendments to Incorporate Total Maximum Daily Loads for Copper in Newport Bay (Resolution No. R8-2021-0009)".

JWA supports the comments submitted by Orange County Public Works and submits this separate comment letter to emphasize issues of particular importance to the Airport.

According to the RWQCB's June 29, 2021 *Staff Report – Metals Impairment Assessment and Copper Total Maximum Daily Loads for Newport Bay, Orange County, California* and the Proposed BPA, zinc and lead are no longer impaired in the watershed and no additional copper load reductions are required from upstream tributary dischargers such as JWA. This finding suggests the dischargers' efforts to comply with various Clean Water Act permits and in particular the numeric action levels (NALs) in the IGP have been protective of the upstream tributaries in terms of achieving the load reduction goals set forth in the TMDL. Recent tributary copper loading analysis conducted by JWA (Attachment 1) further confirms that the

tributaries are well below load allocations in the Proposed BPA and no additional load reductions are necessary for discharges to the tributaries of Newport Bay.

The most recent IGP amendment on November 6, 2018 became effective on July 1, 2020 and incorporated TMDL-based Numeric Effluent Limits (NELs) for lead, zinc and copper that were translated from the San Diego Creek and Newport Bay Toxics TMDLs (2002 EPA TMDL). The current NELs in the IGP are based on the State Water Board Resource Control Board's (SWRCB's) translation of the 2002 EPA TMDL, which is still in effective although it has not represented the condition of the upstream tributary watershed for more than a decade. The translated NEL for total copper (5.78 µg/L) is nearly six times lower than the copper NAL in the IGP (33.2 µg/L) and any exceedance of the NEL would potentially trigger mandatory minimum penalties. Given the unnecessary challenge of meeting the extremely low NELs for copper and zinc driven by the long-outdated 2002 EPA TMDL, JWA requested additional time to comply with NELs through a Time Schedule Order (TSO) that was adopted by RWQCB in August 2020. The JWA TSO requires additional actions including engineering evaluations and long term capital projects to retrofit part of the airport to reduce copper and zinc discharges to the NEL that are anticipated to cost more than $20 million to implement. The significant resources that will be needed for JWA to meet the redundantly lower NELs resulting from the 2002 EPA TMDL are not an appropriate use of limited public funds, particularly when the RWQCB has clearly stated no further load reductions are needed for upstream tributaries to Newport Bay.

Incorporating suggested modifications from the County and JWA on the Proposed BPA is a critical step that will allow necessary and technically appropriate revisions to the IGP provisions related to metals TMDL requirements for upstream tributary dischargers. In addition, providing clarity in the Proposed BPA language with respect to the obligations of upstream tributary dischargers plays an important role in the SWRCB translation/incorporation of TMDL requirement into the IGP, as well as the Construction General Permit (CGP).

The comments below are focused on providing clarity to support the SWRCB's translation of requirements set forth in the Proposed BPA.

Comment 1: The Proposed BPA should explicitly acknowledge that as a result of the Permittees' efforts the Tributaries are meeting the mass-based waste load allocation and no further reductions or actions are needed.

Applicable Section: page 5 of Attachment A (Source Analysis)

We recommend the proposed BPA include a statement acknowledging that tributary runoff is currently meeting the target allocations and no further load reduction is required for upstream dischargers located in the major tributaries (San Diego Creek and Santa Ana-Delhi Channel). This acknowledgement has been re-iterated several times by the RWQCB in the Staff Report as well as in response to comments but is not explicitly acknowledged in the Proposed BPA.[1] We believe the acknowledgment is critical because it provides clarity to SWRCB permit writers related to the current status of tributaries and that no additional TMDL based limits are necessary in statewide NPDES permits (i.e., IGP and CGP). To the extent lead and zinc are no longer impaired and not a part of the Proposed BPA and no copper load reductions are

necessary for the upstream tributaries, continued translation of the Proposed BPA requirements as NELs in the IGP has no technical or rational basis.

In addition, JWA evaluated tributary copper loading (Attachment 1) using the same methodology used by the RWQCB based on newer datasets from the 2009-2010 to 2019-2020 reporting years and the evaluation further supports the "no further load reduction" finding presented in the Staff Report and the acknowledgment requested herein. Based on load analysis conducted by both RWQCB from 2006-2009 and JWA (with more recent data), the tributaries have been in attainment with the allocation for at least **14 years**. As depicted in Attachment 1, the tributaries are not only meeting the copper load allocation but are significantly below the allocation, primarily based on efforts of the County, cities, and other NPDES permittees within the tributaries. To further support this finding, we recommend the RWQCB consider utilizing all of the available monitoring data, including the more recent data sets described above.

Recommended Action/Edits:

- "Update page 5 of the Proposed BPA to include the following sentence: Known sources of Cu include: ….. *The tributary runoff is meeting the assigned allocations (i.e. achieving the load reduction requirement set forth in the 2002 USEPA's Toxics TMDLs) and therefore, no further reductions are necessary at this time for upstream dischargers located in the major tributaries (San Diego Creek and Santa Ana-Delhi Channel)*."

Response 1 –As noted in these comments, the mass-based wasteload allocations assigned to tributary runoff, including discharges regulated under the IGP, are currently being met: no further reductions are required at this time. The draft Basin Plan amendment has been modified to acknowledge current compliance with the tributary and storm drain mass-based allocations; see draft BPA, Implementation Plan, Compliance Schedule.

While "no additional load reductions are necessary for discharges to the tributaries of Newport Bay", the dischargers must continue to monitor to show that the allocations for tributary runoff continues to be met.

Also see responses to the County's Comments 4 and 8.

While Santa Ana Water Board staff's Impairment Assessment found no impairment due to lead and zinc, USEPA's TMDLs for these constituents remain in place and must be implemented.

Comment 2: Incorporate language into the Implementation Plan to clarify how the TMDL requirements should be incorporated into the IGP by the SWRCB

Applicable Section: page 17-18 of Attachment A (Implementation Task 3)
Because the actions of the permittees have resulted in the tributaries achieving the mass-based WLA without the need for TMDL or permit specific reductions, the current NAL requirements in the IGP and the other relevant permit requirements provide sufficient protection to the watershed and no additional TMDL based requirements are necessary for upstream tributary discharges.

JWA concurs with the County's comments on this topic (Comment 4 in the County's Comment Letter) and emphasizes the point that the Clean Water Act does not authorize regulation of point sources, such as IGP and CGP dischargers in the upstream tributaries, through imposition of water quality based effluent limits (WQBELs) where they are not necessary to achieve water quality standards. To the extent the RWQCB has acknowledged no additional load reductions are needed for the tributaries, no additional WQBELs are necessary to be incorporated into the IGP or CGP. This should be made clear in the Proposed BPA to support the SWRCBs incorporation into the IGP and CGP.

We recommend that the Proposed BPA Implementation Plan state that based on the current tributary watershed condition, no additional TMDL based numeric action levels or effluent limits are required to be incorporated into the CGP or into the IGP beyond the current NALs.

[The comment letter provides specific recommended edits not repeated here.]

Response 2 – Board staff consulted with both Water Board and State Water Board staff responsible for the IGP (Industrial General Permit) and received recommendations for language that should be incorporated into the draft BPA to provide direction for permit writers regarding the IGP requirements. Permit staff's recommended language was incorporated into the draft BPA.. (See draft BPA, Table 6 Mass-Based Allocations for Copper (Cu) in Newport Bay, table note 2.)

Comment 3: Clarify that only mass-based allocations are required to be achieved for tributary upon TMDL adoption.

Applicable Section: page 17-18 of Attachment A (Implementation Task 3)

Similar to comments provided by the County of Orange, we recommend that the RWQCB clarify that only mass-based allocations are required to be achieved for tributary runoff. The concentration-based allocations (i.e. the salt water CTR targets) should only be applied within Newport Bay, not to upstream freshwater tributaries or stormwater discharges at the point of discharge to upstream tributaries. The references throughout the implementation plan (i.e., tasks 3 and 4) refer to "allocation" without clarifying "mass-based." The lack of clarity could result in misinterpretation during permit translation and the possibility of assigning inappropriate and unnecessarily stringent concentration-based numeric targets as permit discharge limitations. To the extent there are no further copper load reductions needed for tributaries to meet the assigned WLA and the County has existing tributary monitoring locations (further discussed in Comment 4) that can be used to confirm the mass-based WLAs are met, there is no need for redundant application of a concentration based target applicable within Newport Bay to upstream dischargers within the tributaries. As mentioned above, the same concentration-based allocation included in the EPA 2002 TMDL applicable to saltwater was translated into NELs in the IGP for copper and zinc at upstream points of discharge into freshwater tributaries. As a result, significant resources have already been expended and will continue to be expended by upstream tributary dischargers, including JWA, unnecessarily and in direct contradiction with statements in Section 6 (Economic Consideration) of the proposed

Substitute Environmental Document (SED 2021) that is included as part of the Proposed BPA package:

As described above (XXI. Mandatory /Findings of Significance, b)), projects have already been implemented in the Newport Bay watershed in response to other TMDLs and orders of the Water Board (e.g., Order No. R8-2018-0075) to address pollutants (including metals, nutrients and sediment) ***in tributary runoff to the Bay****. Existing legislation (SB 346) also requires the reduction of Cu inputs to the environment from vehicle brake pads, which is expected to reduce Cu inputs to tributary runoff and hence Cu inputs to the Bay. These actions will continue to be implemented, irrespective of the implementation of the Cu TMDLs, if approved. As stated above,* ***no further reduction of Cu inputs from tributary runoff is required by the proposed Cu TMDLs*** *and* ***the proposed TMDLs will not trigger additional economic demands*** *to address this source.*

JWA is concerned that without clarity that only the mass-based allocation target applies to tributary dischargers and that the target is being met by the upstream tributary dischargers, the intent of the Proposed BPA could be incorrectly translated to a concentration-based target in statewide NPDES permits such as the IGP and CGP.

Recommended Action/Edits:

- Update Task 3 title: Meet Copper (Cu) *mass-based* allocations for *major* ~~*tributary*~~ *tributaries (San Diego Creek and Santa Ana-Delhi)* and *from* storm drain runoff *directly to Newport Bay* - continue to monitor and evaluate Cu ~~concentrations~~ loads in runoff
- Update Task 3.2.1: The dischargers shall submit proposed implementation plan(s) and schedule(s) to monitor ~~*and evaluate*~~ *flow and* Cu concentrations and determine the Cu loads from tributary and storm drain runoff to demonstrate compliance with the Cu WLAs and LAs *(i.e. evaluate whether Cu loads from tributary runoff remain below the Cu mass-based allocations).*
- Update Task 3.2.2: The dischargers shall implement their plan(s) and schedule(s), and submit an annual report that includes the data and an assessment of that data, with respect to achieving the TMDLs' *mass-based* allocations...
- Update Task 3.2.4: The dischargers shall implement their plan(s) and schedule(s), and submit a report that identifies the actions taken and the effectiveness of those actions, and evaluate progress towards meeting the TMDLs *mass-based* allocations for Cu discharges from tributaries and *from* storm drain *runoff directly to Newport Bay*.

Response 3 – The table note for Table 8 Concentration-Based Allocations for Coper (Cu) in Newport Bay has been revised to include the following: "<u>These allocations apply to and are assessed in the receiving waters of Newport Bay where the salinity is equal to or greater than 10 parts per thousand 95% or more of the time. These allocations apply to the receiving waters of Newport Bay at all times of the year, regardless of freshwater flow from San Diego Creek, Santa Ana Delhi, Costa Mesa Channel and other tributaries into Newport Bay. Concentration and flow data for tributary runoff shall be used to determine compliance with the mass-based allocations specified in Table 6 and not as the basis for compliance with the concentration-based allocations specified in Table 8. "*This modification appropriately addresses the concern*</u>

identified in the comment. Edits generally consistent with those recommended above have been made in the Task 3 title, Task 3.2.1 , Task 3.2.2 and Task 3.2.4. See draft BPA, Implementation Plan for Copper (Cu), and Table 9.

Comment 4: The Implementation Plan should acknowledge Upstream NPDES permittees have the option of using MS4 monitoring data (flow and water quality) or participate in a regional monitoring program to demonstrate continued compliance of the mass-based WLA.

Applicable Section: page 17-18 of Attachment A (Implementation Task 3)

The Proposed BPA Implementation Plan for tributary dischargers should explicitly state that the current municipal tributary monitoring program can be used to confirm continued compliance with tributary mass-based allocations. As stated in the County's comment letter, the Proposed BPA should be clarified to indicate that tributary mass- based allocations apply at a point just upstream of the freshwater discharge from tributaries into Newport Bay (for example, San Diego Creek at Campus Dr., Santa Ana Delhi Channel at Irvine Ave.). Monitoring is already performed at these locations, which represent water quality and flow from all upstream tributary dischargers. Additional reasons to rely on existing municipal monitoring of tributary discharges include:

- The runoff from dischargers within major tributary watersheds (i.e. San Diego Creek and Santa Ana-Delhi Channel) enters the MS4 system, mixes with other runoff and therefore is accounted for in the MS4 monitoring program. Additional monitoring by upstream dischargers within the tributaries does not provide value in terms of determining the compliance status of the mass based WLA that have already been achieved and is not a responsible use of resources (Comment1).
- Page 11 of the Proposed BPA states: *The dischargers are encouraged to coordinate their efforts to implement these TMDLs to optimize efficacy and the use of resources*. Allowing upstream NPDES permittees to rely on the County's existing tributary monitoring program is an efficient use of resources.
- It is impractical for "Other NPDES permittees" within the upstream portions of the tributaries to demonstrate their compliance with the mass based WLA. Without any guidance in the TMDL to determine each individual discharger's load portion from the overall 156 lbs./yr. load allocation that covers a variety of permit categories (IGP and CGP), the proposed load allocation for "Other NPDES permittees" is not implementable.

Recommended Action/Edits:

- Update Task 3.2.1: …Existing monitoring and reporting for MS4 systems may be utilized for this task *on behalf of all NPDES permittees located within tributaries that are monitored.*

Response 4 – See Response to the County comment 11, above.

Lido Peninsula Company (Ann McCarthy)

Letter from the Lido Peninsula Company dated August 18, 2021 regarding "Basin Plan to incorporate Total Maximum Daily Loads (TMDLs) for Copper (Cu) in Newport Bay, Orange County, California".

We previously provided written comments on October 17, 2016, August 24, 2018 and March 7, 2019 regarding our concerns about the proposal to require marina owners to restrict or ban the use of legally-available copper- based antifouling paints through a new TMDL. We are concerned that the implementation plan will be both unenforceable and that the practical impacts of the proposed implementation plan to the harbor and individual stake holders is unknown.

The current proposed amendments to the Water Quality Control Plan for the Santa Ana River Basin (Basin Plan) and the revised Draft Substitute Environmental Document 2021 (SED 2021) indicates that the dischargers shall submit their own proposed implementation plan(s) and schedule(s) to achieve reductions of Cu discharges from Cu AFPs in accordance with the requirements identified. The Dischargers include City of Newport Beach, County of Orange, Marina owners/operators Individual boat owners Underwater hull cleaners Boatyard owners/operators. No framework is proposed to outline how this can be achieved. With responsible parties (dischargers) including entities at every operational level in the harbor a clear designation of responsibility is unclear.

We believe adopting these amendments without a realistic working model of an implementation plan is problematic. We additionally believe this plan could have significant detrimental long term economic impacts to the harbor and its stakeholders.

Response – Santa Ana Water Board staff have responded to the prior, comparable comments by Lido Peninsula Company. See Water Board staff responses in the Responses to 2016 Comments Document (2018) and Responses to August 2018 Comments Document (2021). Briefly, the proposed Cu TMDLs do not require marina owners (or any other responsible party) to ban or restrict the use of Cu AFPs. Rather, the Implementation Plan for the proposed Cu TMDLs requires that dischargers, including marina owners and operators, develop their own proposed implementation plan(s) whereby the Cu TMDLs will be achieved. Certain recommended reasonably foreseeable methods of compliance must be considered in this process but are not required. These strategies, include providing incentives for the conversion of Cu AFPs to alternative AFPs (a strategy identified by DPR in their Leach Rate Determination Letter for Cu AFPs.) Dischargers may coordinate efforts to submit a proposed implementation plan.

No specific evidence concerning the potential detrimental economic impacts of the proposed Cu TMDLs is provided. We remind the responsible parties that absent approval of the proposed Cu TMDLs and the flexible, adaptive management approach of the recommended Implementation Plan in these proposed TMDLs, USEPA's 2002 Cu TMDLs must be implemented. USEPA's Cu TMDLs identify Cu AFPs as the most significant source of Cu to the Bay that must be reduced to

achieve the TMDLs. USEPA's TMDLs do not include an implementation plan or compliance schedule, limiting the ability of the Santa Ana Water Board to specify compliance schedules in permits issued to implement USEPA's TMDLs. See also Responses to the County's Comment 9, above, regarding coordinated development and implementation of strategies to achieve the TMDLs.

Recreational Boaters of California (RBOC)

Letter from the Recreational Boaters of California dated August 30, 2021 regarding "Basin Plan Amendments to Incorporate Total Maximum Daily Loads for Copper and Non- TMDL Action Plans for other Metals in Newport Bay".

Our organization remains greatly concerned today, and we reiterate the comments we previously submitted in 2016 and 2018, and also endorse the comments that have been submitted by the City of Newport Beach.

[Comment] In addition, today we reiterate that the regional board should conduct site-specific testing together with a control sample from three miles offshore in the ocean. Copper is naturally found in salt water and should be sampled as a control for whatever is tested inside Newport Harbor. The testing being utilized at present is ancient technology.

*Response – Santa Ana Water Board staff have responded to the prior comments by RBOC. (See Water Board staff responses to RBOC in the Responses to 2016 Comments document (2018), pp. 102-104 and Responses to August 2018 Comments document (2021), pp. 107-110.) Both Water Board staff and USEPA found that Cu discharges from Cu AFPs on boats are the major source of Cu to the Bay. Cu discharges from Cu AFPs must be reduced in order to achieve the TMDLs. It is not clear how the "*testing being utilized at present is ancient technology". *Ongoing monitoring conducted by the County, the City, and Department of Pesticide Regulation employs up-to-date sampling methods and analytical procedures. In addition, it is not recommended to use an offshore site as a reference site since the chemistry and ecology are different in the open ocean compared to the Bay.*

Newport Landing Sportfishing (Mike Thompson)

Letter from Newport Landing Sportfishing emailed August 12, 2021 regarding "Copper pollution mitigation in Newport Harbor".

We have been dealing with this issue for a number of years and it all comes back to the same basic issue. The technology does not yet exist to replace metal based antifouling bottom coatings for small vessels in Newport Harbor. Although research is proceeding and some options are being considered for military use, none of them are currently economically feasible or available for smaller vessels. if a requirement

is put in place to use a substandard, less effective bottom coating there will be the following downstream consequences;
1 – As growth accumulates on vessel hulls, efficiency is lost and fuel consumption increases. This places an economic hardship on vessel owners who must buy more fuel to travel the same distance.
2 – This increase in fuel usage will increase the carbon footprint and toxic emissions of vessels in Newport Harbor.

There is a choice to be made. Do we wait for technology to provide a viable answer to this problem occurring below the surface of the water or exacerbate the problem above the surface. It seems very common these days to force changes for which there is no real path to compliance. This is just a tradeoff with no net benefit in my opinion.
For these reasons we would urge you to reconsider any action at this time.

Response –As a reminder, these proposed Cu TMDLs are not the first for Newport Bay - USEPA established Cu TMDLs for Newport Bay in 2002. USEPA found that Cu AFPs are the major source of Cu discharges to the Bay and must be reduced to correct water column impairment in the Bay due to dissolved Cu. The recommended Implementation Plan for the Santa Ana Water Board staff's proposed Cu TMDLs does not require conversions of boats from Cu AFPs to alternative AFPs; conversions to non-biocide AFPs are a recommended potential strategy that must be considered in the development of the dischargers' proposed implementation plans to meet the TMDLs. Conversions to lower leach rate Cu AFPs (another option to reduce Cu discharges) are already required by DPR's leach rate regulation. In addition, DPR's leach rate regulation assumes the use of BMPs, such as the use of soft cloths during cleaning. The use of BMPs is one reasonably foreseeable method of compliance with the TMDLs described in the draft SED 2022. Note that some non-biocide paints are available, and some boats were converted from Cu AFPs in the Shelter Island Yacht Basin as part of the Port of San Diego's implementation strategy. See also Response to City of Newport Beach's Comment 3, above.

Nathan Chen

Email from Nathan Chen, student, dated August 13, 2021 regarding "Comment on Substitute Environmental Document (SED) for Proposed Basin Plan Amendments for Total Maximum Daily Loads (TMDLs) for Copper (Cu) in Newport Bay, Orange County, CA".

[Comment 1] It is clear that a Cu TMDL is necessary in one form or another due to multiple data sets supporting that the levels of dissolved Cu have exceeded the saltwater CTR Criterion in both the Upper and Lower Bay (Santa Ana Regional Water Quality Control Board 87). Moreover, these elevated concentrations can or have already become toxic to aquatic organisms due to the biomagnification of Cu in the Newport Bay's marine ecosystem and food chain. The inherent fact that the Cu AFPs that are in use are labeled as "biocides" within the SED strongly communicates that these biological killers are the root of the issue and must be handled appropriately.

Response 1 – First, note that Cu does not biomagnify up the food chain. We agree that residual Cu discharges from Cu AFPs on boats are the major source of dissolved Cu impairment in the Bay and must be addressed to correct that impairment.

After reading the SED for the Proposed Basin Plan Amendments for Cu TMDLs in Newport Bay, I would like to address both areas of agreement and concern regarding the proposed plan:
From a student and stakeholder perspective, many areas of the SED were satisfactory such as the implementation of BMPs with soft cloths during hull cleaning, diver certification, container/filter method, and education programs. Likewise, upon reading the alternative section, I agree that 5.3 (Adopt the proposed Cu TMDLs but modify the recommended Implementation Plan for the proposed Cu TMDLs) is not viable especially 5.3.c, since water is an open system and an area-specific plan would not be as beneficial as a holistic plan for the entire Bay.

[Comment 2] Notwithstanding the many areas in which the SED thoroughly addressed the ecological, logistical, and economic aspects of the plan, I have arrived at several concerns that I would appreciate your consideration of:

1. Decreasing USEPA's 2002 Cu TMDL reduction of boat discharges from 92% to the proposed Cu TMDL of 60% may be too drastic.
2. The extended compliance schedule of no later than 12 years is too long of a deadline.
3. The proposed plan should focus on eliminating the root of the issue by imploring the conversion to non-biocide AFPs rather than an overreliance on other methods that do not directly address this source.

The reduction of boat discharges from 92% to the proposed 60% is too drastic.

Although I understand that some of USEPA's 2002 Cu TMDL protocols are outdated and unnecessary (such as regularly addressing sediment impairment through dredging which has its own adverse environmental effects), going from a reduction of 92% to 60% in Cu TMDL discharge may be too large of a jump. This alarming decrease of 32% from USEPA's 2002 Cu TMDL to the proposed TMDL is especially concerning considering that 4.2.2 IV a) classifies the proposed project as potentially impactful in significance towards affecting species that are "identified as a candidate, sensitive, or special status...in local or regional plans, policies or regulations, or by the California Department of Fish and Wildlife or U.S Fish and Wildlife Service" (Santa Ana Regional Water Quality Control Board 30). It is made extremely clear throughout the SED that the Cu AFPs are biocides that harm our marine biodiversity and, thus, the stark decrease in TMDL reduction percentages by boats could have more adverse consequences to environmental conditions. At the very least, I would like a thorough explanation as to how SAWQCB reached this 60% statistic.

Response 2 – The required reduction of Cu discharges from Cu AFPs was decreased to 60% due to decreases in the estimated number of boats and the margin of safety (MOS). The number of boats was decreased from 10,000 to 5,000 based on boat counts by the City of Newport Beach and Orange County Coastkeeper. The MOS was decreased from 20 to 10% based on other conservative estimates used in these TMDLs. These two reductions resulted in a revised estimate of Cu loading from Cu AFPs, and an increase in the allocation for boats, which resulted in a decrease in the required percent reduction from Cu AFPs. (See Tables 5-2 (inputs) and 5-5a (allocations), and the calculations for those Tables in the Staff Report 2021 and 2022. The proposed TMDLs require a significant reduction of Cu discharges from Cu AFPs; however, if this required reduction, when

achieved, does not result in correcting the dissolved Cu impairment, then the TMDLs will need to be reconsidered and additional actions taken to achieve the TMDLs. Conversely, the proposed TMDLs also recognize that the TMDLs may be achieved and dissolved Cu impairment in the Bay corrected even if allocation of Cu from Cu AFPs on boats is not achieved. The proposed TMDLs explicitly address this by providing that the numeric mass-based allocations specified for boats (see Table 6 in the proposed Basin Plan amendment) need not be met if it is demonstrated that the Bay consistently meets the dissolved chronic Cu criterion.

USEPA's Cu TMDLs do not include an implementation plan since such plans are within the purview of the State. We do not understand the reference to USEPA protocols, such as "regularly addressing sediment impairment through dredging…"

The statement that "[I] it is made extremely clear throughout the SED that the Cu AFPs are biocides that harm our marine biodiversity" should be qualified. The draft SED 2022 recognizes that Cu AFPs are biocides legally authorized for use by DPR to prevent fouling of boat hulls. However, residual discharges from those paints, and other alternative paints that may be applied to boat hulls, may result in adverse impacts to the biota inhabiting the Bay. See Draft SED 2022, IV. Biological Resources (a).

[Comment 3] The compliance schedule is too long.
Considering the extensive history of getting the plan amended, the compliance schedule of "as soon as possible but no later than 12 years" is simply too long (Santa Ana Regional Water Quality Control Board 22). This issue has already been pushed onto the sidelines multiple times. It has been 19 years since the approval of the Metals TMDL for Newport Bay by USEPA. Since then, there have been two CEQA scoping meetings in 2015 to develop the draft of the SED, and the release of the draft SED for public comments in 2016. Subsequently, the October 19th, 2018 public hearing was canceled and there have been two additional public workshops in May of 2019. Moreover, that is not to say that this compliance schedule will be due in 12 years from now as I understand that the process of approval for this Basin Plan amendment can take years. Year after year, the issue has been not been addressed tenaciously while our Bay still remains impaired with potentially toxic levels of Cu. In tandem with other concerns, I implore you to implement a tighter schedule considering that waiting twelve more years for compliance for the proposed TMDL is simply a misuse of valuable time. We must not let the issue linger any longer--we need immediate, proactive action.

Response 3 – See Responses 1 and 2 to O.C. Coastkeeper's Comments, above.

[Comment 4] Above all else, there should be a focus on the conversion to non-biocide AFPs. Although there are some setbacks with the conversion to non-biocide AFPs, I strongly believe that it is the best method at tackling the root of the problem for Cu pollution and TMDL compliance within the Bay. Lower-leach rate AFPs are a very promising alternative when looking at solely at compliance to TMDLs; however, in order to address the source, we must exhort the conversion to non-Cu, non-biocide AFPs which will ensure a phase-out of Cu pollution from boats. Supporting the SED's recommendation, I agree that non-Cu biocides are not a viable substitute to Cu AFPs as they may be "as toxic or more toxic" than their predecessors (Santa Ana Regional Water Quality Control Board 63).

As the SED mentions, switching to non-biocide AFPs can lead to the addition of invasive species into the Bay yet I believe that the preventative protocols such as suggesting an alternative paint like silicone or hard epoxy coatings or an inspection/cleaning process that requires incoming boats to have their hulls cleaned could be a feasible solution. For these reasons, I believe that non-biocide AFPs are the Bay's best bet for promoting healthier, Cu-free waters.

While certain programs like diver certification and education are very important and necessary, it should also be noted that there should be more stress on the conversion to non-biocide AFPs since this is the exact point source for the Cu issue in the Bay (aside from runoff that is generally a nonpoint source). The only way to mitigate this issue in the long run would be to phase out Cu and biocide AFPs as a whole.

Response 4 – Comments noted. Per the Water Code, the Regional Board cannot dictate the methods of compliance with the TMDLs. The use of lower leach rate Cu AFPs is required per DPR's leach rate regulation of July 1, 2018 (compliance by July 2020 for most Cu AFPs); and the use of hull cleaning BMPs (which is built into this leach rate) is strongly recommended by DPR. In addition, diver education/certification, boater/boatyard education, and the consideration of conversion to alternative AFPs are mitigation measures recommended by DPR for consideration in implementation plans for Cu TMDLs.

Audrey Wilfong

Email from Audrey Wilfong dated August 16, 2021 regarding "Substitute Environmental Document (SED) for Proposed Basin Plan Amendments for Total Maximum Daily Loads (TMDLs) for Copper (Cu) in Newport Bay, Orange County, California"

Comment 1 - Extending the compliance schedule for the proposed TMDLs to twelve years is giving far too much time to deal with a problem that needs immediate action. The Cu TMDLs should go into effect immediately to protect water quality in Newport Bay.

Response 1 - TMDLs must be approved by the Regional Water Board, the State Water Board, Office of Administrative Law, and the USEPA. Comments concerning the length of the proposed compliance schedule, which is properly stated as "as soon as possible but no later than 12 years" from the effective date of the TMDLs have been responded to previously. See, for example, response to Orange County Coastkeeper in "Comments and Responses for Documents Posted August 24, 2018 to Consider Proposed Copper (Cu) TMDLs…." See also Response 1 and 2 to O.C. Coastkeeper, above.

Comment 2 - Two of the alternatives (5.2 Adopt only an Implementation Plan for the USEPA Cu TMDLs and 5.4 Adopt an alternative restoration approach in lieu of TMDLs) were too similar to the recommended action (5.5 Adopt the proposed Cu TMDLs as presented). More explicit difference should be made between the two alternatives in order for this SED to be effective.

Response 2 - As stated in the discussion of Alternative 5.2, this alternative would likely have more environmental effects than the proposed TMDLs (5.5) and would not meet one objective of the Proposed Project to revise the USEPA Cu TMDLs to reflect new data. Given that the USEPA has

established Cu TMDLs, the alternative restoration approach (Alternative 5.4) would likely not be approvable by USEPA. Further, the alternative restoration approach would likely have the same potential environmental effects as the Proposed Project and would thus not be environmentally superior to the Proposed Project (see discussion of Alternative 5.4).

APPENDIX 1 TO RESPONSES – Table from County of Orange Comments

Task	Activities	Monitoring Locations	Assessments
1.1 Implementation Plan and Schedule to Reduce Cu Discharges from Cu AFPs			
1.1.1 & 1.1.2	• Submit own plan • Monitoring and evaluation of copper in marinas, channels, and open water sites • Identify actions to reduce copper from boats • Submit annual report	• Marinas • Channels • Open Water	• Load reduction from boats • Compliance with CTR • Compliance with SQO Sed Target • Trend analysis Sed with ERM
2.1 Implementation Plan and Schedule to Monitor and Evaluate Sediments; Conduct Stressor Identification Studies			
2.1	• Submit plan • Monitoring and evaluation sediments • Submit annual report • If sediments impacted, submit plan for stressor ID • Submit stressor ID report	• Upper and Lower Bay • Areas that exceeded the Cu ERM guideline or no/limited data (marinas)	• Compliance with SQO Sed Target • Analysis Sed with ERM and toxicity analyses • Stressor identification studies
3.2 Monitoring and Evaluation by Dischargers			
3.2	• Submit plan • Monitoring and evaluation water column • Submit annual report • If WLA/LA exceeded, submit plan for allocations • Submit progress report	• Tributaries • Storm drain runoff	• Loads from tributary and storm drain runoff • Compliance with WLAs and LAs
4.0 Evaluate Local Impacts of Copper Discharges from Larger Storm Drains			
4.1	• Submit plan • Monitoring and evaluation water column/sediment • Submit annual report • If CTR exceeded, submit plan • If sediments impacted, submit plan for stressor ID • Submit progress report	• Larger storm drains (6) • Upper and Lower Bay • Areas that exceeded the Cu ERM guideline or no/limited data (marinas)	• Local impacts of copper discharges • Compliance with CTR • Compliance with SQO Sed Target • Analysis Sed with ERM and toxicity analyses