STATE WATER RESOURCES CONTROL BOARD
Comment Summary and Responses
Amendment to the Water Quality Control Plan for the Santa Ana River Basin to Incorporate Total Maximum Daily Loads for Copper in Newport Bay

Comment Deadline: July 17, 2023

Comment Letter No.	Date	Commenter/Author	Organization/Reference
LIDO	June 13, 2023	Ann McCarthy	Lido Peninsula Company, LLC Comment Letter – Amendment to Incorporate Copper TMDLs for Newport Bay
OCPW	July 14, 2023	Amanda Carr	Orange County Public Works Comment Letter – Amendment to Incorporate Copper TMDLs for Newport Bay [on behalf of the County of Orange, Orange County Flood Control District, Orange County Parks, and John Wayne Airport]
OCCK	July 17, 2023	Raymond Hiemstra	Orange County Coastkeeper Comment Letter – Amendment to Incorporate Copper TMDLs for Newport Bay
MN	July 17, 2023	Gregory J. Newmark	Meyers | Nave on behalf of the City of Newport Beach Comment Letter – Amendment to Incorporate Copper TMDLs for Newport Bay

NB	July 17, 2023	Grace Leung	City of Newport Beach Comment Letter – Amendment to Incorporate Copper TMDLs for Newport Bay

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LIDO-1a	We previously provided written comments on October 17, 2016, August 24, 2018, March 7, 2019 and August 18, 2021, 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	The Santa Ana Regional Water Quality Control Board (Santa Ana Water Board) responded to prior, similar comments by Lido Peninsula Company. (See Santa Ana Water Board Responses to 2016 Comments Document (2018; Comment 1, page 113), Responses to August 2018 Comments Document (2021; pages 113-114), and Responses to 2021 Comments Document (2022; pages 106-107).) The Santa Ana Water Board's responses are summarized and elaborated on below. The proposed Newport Bay Copper TMDLs (Copper TMDLs) do not require marina owners (or any other responsible party) to ban or restrict the use of copper antifouling paints. However, the Implementation Plan for the proposed Copper TMDLs does require that dischargers, including marina owners and operators, develop their own proposed implementation plan(s) to assist in achieving the Copper TMDLs. The recommended reasonably foreseeable methods of compliance must be considered (though they are not required) in this process and can help guide the framework for the development of individual implementation plans. In addition, the Copper TMDLs also recognize that the City of Newport Beach and County of Orange are the primary grantees with managerial authority over [non-private]

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	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.	tidelands and submerged wetlands where boats in Newport Bay are moored. (See, e.g., chapter 74, Statutes of 1978, and as amended by Senate Bill No. 1577 in 2012). The City and County also lease land over which they have managerial authority to marina owners/operators and to individual recreational boat owners to moor boats within Newport Bay. Therefore, the Copper TMDLs expect the City and County to take the lead on developing implementation plans to reduce copper in Newport Bay. Recommended implementation strategies include implementation of best management practices such as underwater hull cleaning education and certification, boater education, and providing incentives for the conversion of copper antifouling paints to alternative antifouling paints (one of several strategies [management measures]) identified by the California Department of Pesticide Regulation (CDPR) in their Leach Rate Determination Letter for copper antifouling paints.
LIDO-1b	We additionally believe this plan could have significant detrimental long term economic impacts to the harbor and its stakeholders.	The Santa Ana Water Board previously responded to similar comments (Responses to August 2018 Comments Document (2021; pages 113-114), and Responses to 2021 Comments Document (2022; pages 106-107)). The commenter has not provided specific evidence concerning any potentially detrimental economic impacts of the proposed Copper

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		TMDLs. However, the Santa Ana Water Board considered available economic analysis information provided by the City of Newport Beach on the potential costs of implementing the Copper TMDLs. Consequently, we updated the Substitute Environmental Document (SED) 2022 to reflect revisions in the TMDLs after the City had provided their cost estimates (See SED 2022, Section 6.0 Economic Considerations, p. 91). Additionally, absent approval of the proposed Copper TMDLs and the flexible adaptive management approach of the recommended Implementation Plan in these proposed TMDLs, implementation of U.S. EPA's existing 2002 TMDLs for Toxic Pollutants, San Diego Creek and Newport Bay, California (U.S. EPA 2002 Technical TMDLs[1]) for copper in Newport Bay established by U.S. EPA would require greater reductions in copper loads and therefore, higher costs. Coordination with other marina owners/operators or other dischargers to develop and implement plans is expected to optimize the efficiency of proposed actions taken to meet the Copper TMDLs and lower the

[1] A technical TMDL does not include an implementation plan.

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		overall cost for all parties.
OCPW-1	***Recommendation*** ***For the reasons provided below, the County is requesting that the State Water Board:*** ***A. Remand the Copper TMDLs for Newport Bay to the Santa Ana Water Board to make the following modification(s):*** ***i. Incorporate the Alternative Implementation Plan submitted by the County and City of Newport Beach[7] and update/replace the "Implementation Plan for Copper (Cu)" section and Table 9 of the adopted BPA accordingly. The Alternative Implementation Plan includes three distinct phases for the TMDL:*** ***▪ Phase I*** ***• State actions to reduce copper (Cu) discharges from Cu antifouling paints (AFP) on boats in***	The County/City's proposed Alternative Implementation Plan was submitted on January 28, 2022. The Santa Ana Water Board reviewed the proposed plan submitted by the dischargers and responded to it in the SED 2022, Appendix B-5. Commenters advocated for the Alternative Implementation Plan during the Santa Ana Water Board hearing on the Copper TMDLs, but the Santa Ana Water Board declined to adopt the Alternative Implementation Plan in favor of the staff-proposed implementation plan for the Copper TMDLs. The Santa Ana Water Board's response to the Alternative Implementation Plan is summarized below: While the proposed Alternative Implementation Plan included a phased approach, it did not describe a specific plan of action or include feasible measures to address copper impairment in Newport Bay. For example, the Alternative Implementation Plan includes as the first phase of implementation, an (8) eight-year period during which non-discharger state agencies will be responsible for implementing actions to reduce copper discharges from boats in Newport Bay. During this eight-year period, the City of Newport Beach,

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	Newport Bay • ***Monitoring sediments and copper in Newport Bay*** • ***Tributary and storm drain runoff waste load allocation implementation*** ▪ ***Mandatory TMDL re-opener/reconsideration*** • ***Review/revise TMDL, as needed based on the results of Phase I*** ▪ ***Phase II*** • ***Revision of the implementation plan, as needed based on the TMDL reconsideration*** ***ii. Explicitly include/allow for a Best Management Practice (BMP)-based compliance pathway for the MS4 permittees for the mass-based waste load allocations (WLAs) in Table 6[r] [in the Basin Plan amendment] and concentration- based allocations in Table 8.***	County of Orange, marina owners/operators and boat owners responsible for discharges of copper from anti-fouling paints to the Bay would not be expected or commit to undertake any management practices or other efforts to reduce copper loading. As the Santa Ana Water Board noted, it lacks authority to compel other state agencies to undertake the actions the City and County recommends in their proposed Alternative Implementation Plan (see the Santa Ana Water Board's detailed responses to the Alternative Implementation Plan in Appendix B-5 to the SED 2022.) The Santa Ana Water Board declined to adopt the Alternative Implementation Plan in favor of the implementation plan proposed by Santa Ana Water Board staff as a component of the TMDLs. Although the County disagrees with the Santa Ana Water Board's decision, it has not explained how the Santa Ana Water Board's previous response to the Alternative Implementation Plan was inadequate. (See Appendix B-4, Responses to August 2021 Comments from the City of Newport Beach [responses to Comment 4; page 13 and 9.8, page 24] and County of Orange [responses to Comment 2.7, page 73 and 2.9, page 74] to the SED 2022. See also SED 2022, pp. 85-89 for discussion of project alternatives considered but rejected.)

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OCPW-2	*I. The San Diego Regional Water Quality Control Board ("San Diego Water Board") acknowledged (in October 2022) that, despite the extensive efforts of the Port and other stakeholders, the Shelter Island Yacht Basin Copper TMDL ("SIYB Copper TMDL") will not meets its numeric targets and will subsequently be revised to reflect an updated, scientific and policy understanding as to how copper should be evaluated and managed within the marina.* They [San Diego Water Board] further acknowledge that "DPR has primary jurisdiction over the registration and use of pesticides in California, which may constrain management actions." The San Diego Water Board EO goes on to recognize that instead of conducting a "narrow review of dissolved copper concentrations", the San Diego Water Board will shift its assessment of the ecological systems within the SIYB marina and reopen the TMDL to revisit the assumptions, role and impact of the sediments, copper loading sources, and	The City of Newport Beach included the San Diego Water Board's October 5, 2022 letter as justification in its comment letter sent to the State Water Board. The referenced October 5 letter signed by the San Diego Water Board's Executive Officer was addressed to the stakeholders in the Shelter Island Yacht Basin (SIYB) Copper TMDL implementation effort and was not submitted directly to the Santa Ana Water Board during the Newport Bay Copper TMDLs written comment period. However, on November 8, 2022, the County provided a copy directly to the Santa Ana Water Board's Executive Officer. Santa Ana Water Board staff reviewed the October 5, 2022 letter and provided responses regarding its relevance to the Newport Bay Copper TMDLs at the public hearing (Santa Ana Water Board December 2, 2022 public hearing transcript, pages 140-142). The Santa Ana Water Board's response is summarized below. While the San Diego Water Board letter expressed an intent to shift assessments and reconsider the current approach for the SIYB, the San Diego Water Board's letter did not question the need for the TMDL. Nor does the letter indicate that efforts to reduce copper discharges from boats should be abandoned or state that taking steps to address impairments from copper

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	ecosystem effects. Thus, the very basis upon which the Copper TMDLs for Newport Bay were developed are now being questioned and significantly revised.	is no longer necessary. In fact, the October 5, 2022 San Diego Water Board letter recognizes the importance of the past and ongoing efforts to address copper impairments: "Since passive leaching of copper from boat hulls accounts for up to 92 percent of copper loading to the [Shelter Island Yacht] basin, reductions of copper leached from boat hull coatings has rightly been the focus of management and regulatory actions." (San Diego Water Board October 5, 2022 letter, p. 2.) Further, the San Diego Water Board stated: "There is evidence copper loading has been and will continue to be reduced as a result of newer CDPR regulations and the public and private management efforts within the basin." (October 5, 2022 letter, p. 2.) The San Diego Water Board also states: "Reducing copper in the yacht basin helps protect the marine environment from the toxic and community-altering effects of copper pesticide that leaches from typical recreational boat hull coatings." (October 5, 2022 letter, p. 1.) Thus, although the San Diego Water Board recognized that the SIYB TMDL goal of achieving the numeric targets by December 2022 would not be met, the San Diego Water Board recognized the continued need to resolve copper impairments in the Shelter Island Yacht Basin as follows: "The challenges facing water quality in the basin are not insurmountable and must be

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		addressed." (San Diego Water Board October 5, 2022 letter, p. 4.) Likewise, the San Diego Water Board states that "given evidence of adverse impacts in other marinas in the Bay [footnote omitted] and region, we may broaden our geographic scope and/or regulatory actions." This statement is consistent with the regional water boards' statutory obligation to establish TMDLs for impaired waterbodies to address the impairments to protect water quality. (See 33 U.S.C. § 1313(d).). The San Diego Water Board's October 5, 2022 letter does not question the finding of impairment for copper, nor the legal obligation to address impairment through a TMDL. Nor does the letter question the appropriateness of the numeric targets based on the CTR criteria for copper. Additionally, the quote referenced in the second paragraph of the comment is incomplete. The complete sentence states that *"Since DPR has primary jurisdiction over the registration and use of pesticides in California, which may constrain management actions, we will particularly engage DPR to share information, collaborate on water body assessment, and identify efficacy of the DPR release cap."* [underline added]. Contrary to the commenters' suggestion, the San Diego Water Board's determination to evaluate

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		next steps for the SIYB's Copper TMDL efforts does not invalidate or undermine the technical and legal basis for the Newport Bay Copper TMDLs. The San Diego Water Board's October 5, 2022 letter makes it clear to those parties that advocated for the San Diego Water Board to restrict the use of some copper bottom paints that such restrictions are not a management measure that the Water Board could implement alone but instead they will continue to work with CDPR on issues associated with their common interest in reducing copper concentrations in the SIYB. Finally, there are important distinguishing characteristics of the subject water bodies which indicate that efforts to address copper impairments in Newport Bay may not face the same challenges as have been encountered in the SIYB. According to the 2005 staff report for the SIYB copper TMDL (San Diego Water Board 2005 Technical Staff Report, p. 8), the SIYB is a popular recreational yacht basin comprised of numerous marinas, yacht clubs, an anchorage, a fuel dock, and other facilities that support the marine industry located in the north end of San Diego Bay. The SIYB supports a high density of recreational vessels in an area of reduced tidal flushing and increased contaminant residence times. The yacht basin is an artificial basin with poor tidal flushing (residence time of 4-5 days) that includes a variety of facilities that

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		support marine industry and recreational boating. The yacht basin comprises approximately 185 acres in surface area (San Diego Water Board 2005 Technical Staff Report, Appendix 2, Source Analysis Calculations, p. 108), including the entrance channel, with an average depth of 39 feet (2005 Technical Staff Report, p. 9). Approximately 2,363 recreational boat slips or buoys are present within the SIYB, which has the greatest number of moored vessels (2,242) of any yacht basin in San Diego Bay (2005 Technical Staff Report, Appendix 2, Source Analysis Calculations, p. 103). In addition, the SIYB is only one of several marinas located in San Diego Bay. TMDL implementation has been exercised for years in the SIYB, which included implementation of BMPs for hull cleaning, education and outreach, and conversion of port vessels and some other vessels to copper-free paints. These actions resulted in reduction of copper concentrations in the SIYB. Consequently, the Port of San Diego achieved their first two compliance targets (see October 2, 2022 San Diego Water Board letter). Additionally, the October 5, 2022 San Diego Water Board letter also states that the San Diego Water Board is considering expanding the geographic scope and/or regulatory actions given

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		adverse impacts documented in other marinas in San Diego Bay and the San Diego region at large. The Santa Ana Water Board staff commented at the December 2, 2022 public hearing (Santa Ana Water Board December 2, 2022 public hearing transcript, page 45, lines 12-15, and staff presentation slide 51), that, in contrast, the Santa Ana Water Board's Copper TMDLs apply to both Upper and Lower Newport Bay. Approximately 5,000 boats/boat slips/buoys are situated in lower Upper Newport Bay (which includes the De Anza and Dunes marinas) and Lower Newport Bay (Newport Harbor), which comprises around 700 acres of open water. Newport Bay has a much lower number of boats per acre than the SIYB (approximately 7 boats per acre in Newport Bay vs. 12 boats per acre in the yacht basin), better tidal flushing and lower residence times in most areas (especially offshore moorings) and includes an extensive federal navigational channel in Lower Bay that is periodically dredged by the U.S. Army Corps of Engineers, which helps maintain adequate tidal flushing within Newport Harbor. Similarly, to date there has been some success in copper reduction at the Marina del Rey Harbor in Los Angeles County. According to the County of Los Angeles's August 26, 2021 Marina del Rey

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		Copper Mitigation Measures Implementation Status Report, significant progress has been made on conditions 3 and 4. The report states that conversion of boats to CDPR's lower leach rate copper paints (condition 3) has resulted in an 18% reduction in copper loads, and the implementation of an in-water hull cleaning ordinance that requires diver certification and use of BMPs (condition 4) has resulted in a 20% reduction in copper loads (a total reduction of 38% in copper loads in the harbor). It should be noted that Newport Bay Copper TMDLs require only a total of a 60% reduction in copper loads. Implementation of similar actions in Newport Bay could result in substantial reductions in copper concentrations in the Bay. The County of Los Angeles has also identified additional strategies for copper reductions in the harbor, including boater outreach and education, a Marina del Rey Harbor Copper TMDL Stakeholder Work Group, and plans to continue their support for conversion to non-biocide hull paints and use of in-water dry docks or boat lifts. Information on the County's copper reduction actions can be found here: Toxics TMDL – Beaches & Harbors (lacounty.gov)

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		To date, the record contains limited documentation[2] of any action by the City of Newport Beach, County of Orange or other dischargers in Newport Bay to directly reduce dissolved copper concentrations in the Bay. (See responses to Comments OCPW-3 and MN-34.) Given the differences in hydrodynamics in San Diego Bay and Newport Bay, it would be premature to assume that actions similar to those implemented in the SIYB and Marina del Rey Harbor to reduce dissolved copper concentrations, if taken in Newport Bay, will not result in reductions in copper concentrations or that the TMDLs would not be met in the 12-year compliance period specified in the Copper TMDLs. The City and County asserted in comments to the Santa Ana Water Board that the Bay is already "close" to meeting the CTR criteria as the "average" concentration in lower Newport Bay is 2.5 µg/L (the 2004 state listing policy, which is used to determine impairment, does not use averages). Harbor-wide implementation of these best management practices, coupled with implementation of the lower leach rate cap for copper-based antifouling paints on recreational

[2] See responses to Comments OCPW-3, MN-34; see also City of Newport Beach Resolution 2010-0053 (encourages educational and outreach opportunities to voluntarily change to non-toxic, copper-free antifouling vessel bottom paints) and Harbor Rules and Regulations (identifies environmental regulations applicable to boat cleaning including not using paints with copper or other toxic biocides and limiting all in-water maintenance to no discharge activities).

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		boats, may well be sufficient to meet the CTR copper criteria in the Bay. If this does occur, the implementation plans and TMDLs can be revisited. The dischargers also have the option of developing site-specific objectives for copper if BMPs alone are not sufficient to meet the CTR copper criteria.
OCPW-3	[T]he approach for the Copper TMDLs for Newport Bay were predicated, in large part, on the same studies and a similar implementation approach and tasks as those utilized within the SIYB Copper TMDL [example excerpts from the Copper TMDLs for Newport Bay Fact Sheet below]: • The Source Analysis (Section 5.3.1), cited a study from the SIYB with estimates of particulate and dissolved copper that are discharged during hull cleaning events. • The Implementation Plan Tasks and Schedule (Section 5.6.3.1) noted "The percent reductions identified in the interim schedule are based on the time expected to be required to implement reasonably foreseeable measures to achieve the reductions… Since these measures are already in place in other areas where Cu TMDLs	Santa Ana Water Board staff responded to similar questions from board members at the December 2, 2022 public hearing. (Santa Ana Water Board Transcript, Item 16, pages 51-52.) The Santa Ana Water Board relied upon the implementation approach and some of the scientific studies used in the SIYB copper TMDL in developing the Newport Bay Copper TMDLs. However, the scientific studies and implementation approach have not been invalidated by the SIYB's inability to meet its final TMDL compliance date. Santa Ana Water Board staff also reviewed the Los Angeles Regional Water Quality Control Board's (Los Angeles Water Board) 2014 revised Marina del Rey Harbor Toxics TMDL, which included a TMDL for copper that was based on the SIYB copper TMDL. That TMDL included a dissolved copper numeric target and load allocation for the County of Los Angeles, individual anchorages, and persons owning boats anchored in the marina.

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	have been adopted due to impairment of the water column by Cu from boats (i.e., Shelter Island Yacht Basin, Marina del Rey), it is expected that comparable programs can be developed and implemented for Newport Bay in approximately 1-2 years, or less." • The Scientific Peer Review (Section 7.0), noted "The Cu TMDLs for Newport Bay applied the same scientific approach and peer reviewed methodology that were used in the peer reviewed *Total Maximum Daily Load for Dissolved Copper in Shelter Island Yacht Basin, San Diego* (SIYB Cu TMDL) (SDRWQCB 2005)." • Appendix 11 notes "Copper (Cu) discharges from Cu antifouling paints (Cu AFPs) are not only an issue in Newport Bay, but are a statewide problem that was brought to attention by the Shelter Island Cu TMDL. (San Diego Regional Water Board 2005). Since that time, additional studies have been conducted in water bodies with marinas, including: Newport Bay (Section 3.1), San Diego Bay, and the	Additionally, in developing the SED 2022, Santa Ana Water Board staff conducted multiple site-specific scientific studies in Newport Bay to assist in determining the causes and level of impairment due to copper—both from copper-based antifouling paints on recreational boats and from tributary and storm drain runoff into the Bay (the waste load allocations for tributary and storm drain runoff are currently being met). Data collected in 2019 by both CDPR and the City of Newport Beach continue to show impairment for copper in Newport Bay. Additional monitoring may indicate reductions based on implementation of CDPR's regulation but as` discussed below, unlike in the SIYB, efforts to implement similar mitigation recommendations in Newport Bay have been limited. CDPR has developed seven mitigation recommendations that should be implemented along with their lower leach rate rule for copper-based antifouling paints. The following six mitigation recommendations are included as recommended implementation tasks in the Newport Bay Copper TMDLs. (Note that the lower leach rate rule incorporates the first two of the mitigation recommendations listed below into the 9.5 µg/cm^2/day copper leach rate. The

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	California coast. These studies have demonstrated exceedances of the dissolved Cu CTR criteria and a relationship between elevated Cu concentrations and water toxicity in multiple marinas. These results demonstrate the necessity to regulate dissolved Cu in marine waters and gives impetus to the TMDL program."	CDPR recommendation to "Include painted-hull maintenance information as part of product labels" is not included in the list below, as paint label product information falls under the purview of U.S. EPA.) CDPR's 2014 Determination memorandum states, in part, the following: "Besides reformulation of copper AFP products, these recommendations [for mitigation] also include: • Require in-water hull cleaners to implement BMPs for in-water hull cleaning. • Reduce in-water hull cleaning frequency to no more than once per month. • Develop for distribution hull maintenance brochures to be provided to boaters via boatyards at the time of painting. *[TMDLs: boater outreach and education.]* • Increase boater awareness and acceptance of copper AFP alternatives. *[TMDLs: boater outreach and education.]* • Foster new incentive programs and continue support for existing programs to convert copper-painted boat hulls to those painted with alternatives. • Consider site-specific objectives (SSOs) for copper for certain marinas or harbors." (*Department of Pesticide Regulation,*

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		Determination of Maximum Allowable Leach Rate and Mitigation Recommendations for Copper Antifouling Paints per AB 425, January 30, 2014, pp. 3-4.) CDPR has consistently reiterated these same mitigation recommendations in subsequent CDPR- issued notices and correspondence. (See, e.g., California Notice 2018-02, issued January 12, 2018 ("New Regulations for Copper-Based Antifouling Paint Pesticide Products") and CDPR letter from George Farnsworth, Assistant Director for Pesticide Programs Division, to Hope Smythe, Santa Ana Water Board Executive Officer, dated November 16, 2017.) Except for the City's adoption of Resolution 2010-053, which encourages all boat owners in Newport Harbor to take advantage of the available educational and outreach opportunities to identify and voluntarily change to non-toxic, copper-free anti-fouling vessel bottom paints, the record lacks documentation of any concerted or widespread implementation of these recommended mitigation measures in Newport Bay. (See also response to Comment MN-34.) Additionally, while the scientific methods and peer review used for the SIYB Copper TMDL were also used as a reference resource for the

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		Newport Bay Copper TMDLs, there are significant differences in tidal circulation and boat density per acre, as well as other parameters between the yacht basin and Newport Bay. (See responses to Comment OCPW-2 and OCPW-4.) Thus, it is not appropriate to conclude that a similar outcome (i.e., inability to meet the final TMDL attainment date) will also occur in Newport Bay. And, if a similar outcome appears likely during the 12-year implementation schedule, amendments to the TMDLs can be considered. (See also response to Comment OCPW-2.)
OCPW-4	[T]he Port of San Diego completed a Final In-water Hull Cleaning Pause Water Quality Monitoring Technical Report in September 2022. The Hull Cleaning Pause Monitoring Program was designed to evaluate the potential impacts of hull cleaning on water quality in SIYB. The Report made the following findings and conclusions: • While a pause in the hull cleaning of vessels with copper-based AFPs does decrease the load of dissolved copper into the basin, leading to subsequent reductions in dissolved copper concentrations, it appears that	The commenter's restatement of certain conclusions included in the Port of San Diego's 2022 Final In-water Hull Cleaning Pause Water Quality Monitoring Technical Report (Hull Cleaning Pause Report) are noted. The Hull Cleaning Pause Report was considered by the Santa Ana Water Board, and Santa Ana Water Board staff commented on the report at the public hearing. (Santa Ana Water Board transcript of the December 2, 2022 public hearing, Item 16, pages 44-45; Water Board staff presentation, slide 51.) While the report findings cast doubt on the SIYB's current ability to meet the TMDL

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	changes to the basin-wide dissolved copper concentrations are minimal when compared with the passive leaching of copper-based AFPs, which is the predominant source of copper loading to the basin. • Despite observed decreases in dissolved copper levels during the Pause and Post-Pause periods, the total cessation of hull cleaning during the Monitoring Program was insufficient to reduce the basin-wide dissolved copper levels to a level that would achieve the current water quality standard (3.1 µg/L). • It is not currently known what the dissolved copper levels would be if the study were to be extended over a longer period of time. However, the findings of this study suggest that a complete elimination of hull cleaning would not likely result in achievement of water quality standards in SIYB.	compliance deadline of December 2022, as discussed in response to comment OPCW-2 above, the conclusions are not determinative of the likelihood of achieving required copper load reductions in Newport Bay and do not necessitate abandoning or postponing the Copper TMDLs that update the current U.S. EPA 2002 Technical TMDLs to address copper impairment in Newport Bay. Additionally, the Port of San Diego implemented tracking of vessel paints when CDPR's lower leach rate copper-based antifouling paints regulation went into effect. It was found that by the end of the TMDL implementation period in 2022, approximately 70% of vessels moored in the SIYB were confirmed to have low (46%), aged- (19%), or non-copper paints (5%) (see Final 2022 SIYB Dissolved Copper Total Maximum Daily Load Monitoring and Progress Report, released in May 2023 [2022 Dissolved Copper TMDL Monitoring and Progress Report]). It should be noted that aged copper-based antifouling paints have a much lower leach rate than new or recently cleaned paints. (See also discussion of the May 2023 report in response to Comment OCPW-5.) The 2022 Dissolved Copper TMDL Monitoring and Progress Report goes on to state that *"Using the results of the 2022 SIYB hull census, the*

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		estimated dissolved copper load into the basin has decreased between 45% and 68% from the baseline since implementation of the SIYB TMDL in 2011...Load reductions can be attributed primarily to these factors: (1) continued improvement in the accuracy of the hull census; (2) a more accurate accounting of the vessels with aged- and lower-copper paint; and (3) transitions to DPR Category I paints following implementation of the DPR Rule [emphasis added]." Additionally, a full evaluation of the impacts of DPR's rule on copper concentrations in Newport Bay has not yet been completed. (Note that the Newport Bay Copper TMDLs estimate that a reduction of 60% in copper discharges from boats falls within the range in reductions that have been achieved since implementation of the SIYB Copper TMDLs (45-68%) as estimated by the San Diego Water Board.) The Port of San Diego's September 2022 Hull Cleaning Pause Report also highlights an important point while interpreting the results from the monitoring conducted as part of that study: • It is not currently known how the effects of hull cleaning on dissolved copper levels may differ in other marina basins with different characteristics (e.g., number of vessels, size, hydrodynamics).

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		See also responses to comments OCPW-2 and OCPW-3.
OCPW-5	The Port of San Diego also completed its *Final 2022 Shelter Island Yacht Basin Dissolved Copper TMDL Monitoring and Progress Report* in May 2023. This Report was the final annual monitoring and progress report to fulfill the requirements of Investigative Order No. R9-2011-0036. Some of the key findings of the full implementation of this monitoring program included the following: • Based on the SIYB TMDL Monitoring Program findings since its initiation in 2011, there does not appear to be a clear and consistent link between copper load reduction and water quality improvement (as would be expected by the SIYB TMDL model predictions). • Additionally, vessel tracking data have indicated that while copper AFPs remain legally available statewide, most boaters will continue to use and maintain these products. • Further reductions in dissolved copper load are expected to continue beyond the TMDL timeline as the	The Port of San Diego's 2022 Dissolved Copper TMDL Monitoring and Progress Report (May 2023) was not available for the Santa Ana Water Board to consider when it adopted the Copper TMDLs. The commenter's restatement of certain conclusions in the 2022 Dissolved Copper TMDL Monitoring and Progress Report are noted. Despite the findings of the 2022 Dissolved Copper TMDL Monitoring and Progress Report (May 2023), as it applies to the SIYB, the corrective actions taken by the Port of San Diego since adoption of the 2005 TMDL have resulted in significant reductions in copper concentrations in the marina. The assumption that the TMDL compliance date for the Newport Bay Copper TMDLs cannot be met is premature and is not supported by any scientific data. See also response to Comment OCPW-4. The Port also found that the vessel tracking data supplied by SIYB marinas and yacht clubs indicate that most of the vessels in the marinas are painted in California boatyards. CDPR's lower leach rate rule for copper-based antifouling paints applies to all marinas and boatyards in the

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	DPR Rule is fully realized and the remainder of vessels in SIYB transition to DPR Category I paints. However, without modifying paint availability at the state level, achieving desired loading reductions and water quality standards may not be attainable….	state. Boatyards and marinas were given three (3) years until 2021 by CDPR to remove all higher leach rate paints. All paints for sale and use on recreational boats in the state of California should now meet the lower reach rate requirements. CDPR is also conducting inspections of boatyards and marinas to ensure that copper-based antifouling paints higher than those now allowed are no longer being used. To what degree recreational boat owners will continue to rely on legally available copper antifouling paints rather than considering safe alternative paints is unknown. However, education regarding the effects of copper anti-fouling paints and the availability of environmentally safe alternatives may encourage them to consider the use of available non-biocide alternative hull paints. The issue of the feasibility of attaining the desired loading reductions and water quality standards as long as copper-based antifouling paints remain available for use in California (even with the lower leach rate paints) will have to be addressed on a site-by-site basis. The hydrodynamics of the specific water body (e.g., retention times, flushing, dissolved oxygen levels, mixing zone), number of boats present, and the degree that CDPR's mitigation measures have been implemented, are all key factors to copper

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		loadings and reductions that can be achieved in a waterbody. The 2022 Dissolved Copper Monitoring and Progress Report for the SIYB does not support commenters' assertions that there is insufficient linkage between reductions in dissolved copper and improved water quality or that achieving the required reductions in dissolved copper in Newport Bay may not be attainable without additional modifications to paint availability statewide. As noted in response to comment OCPW-7, the 12-year attainment schedule with two interim milestones allows for potential amendment of the TMDLs if deemed appropriate once the TMDLs are effectively implemented. The TMDLs already include an interim attainment schedule and a commitment to review and revise the TMDLs, if necessary, based on new data and information collected as part of adaptive management of implementation strategies, and time for studies needed to develop site-specific objectives for copper for Newport Bay. The attainment schedule requires reductions in copper loadings at different percentages over time, with a 20% reduction required in 4 years; a 40% reduction in 8 years; and the final, a 60% reduction in 12 years (i.e., the total time for

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		meeting the TMDLs allowed under the implementation plan). However, if the CTR criteria for copper is met (or approved site-specific objectives) before the 12 years has elapsed, no further reductions will be required.
OCPW-6	These critical findings and recognition of the need to shift how copper should be assessed and managed within marinas in southern California in order to attain the desired results was available in September and October 2022 (after the last formal written comments were due), which were provided by the County to the Santa Ana Water Board during the TMDLs adoption hearing in December 2022. However, the Santa Ana Water Board has not identified if or how it has considered this new information and no formal response has been provided.	The Santa Ana Water Board's written public comment period for adoption of the Copper TMDLs closed in August 2021. The Santa Ana Water Board was not aware of the October 5, 2022 San Diego Water Board letter to stakeholders in the SIYB matter until Orange County Public Works provided the Santa Ana Water Board with a copy of the letter on November 8, 2022, after the written comment period closed. (See November 8, 2022 email from Amanda Carr, OCPW, to Jayne Joy, Santa Ana Water Board.) Under these circumstances, no written response to the letter was required prior to the Santa Ana Water Board's adoption of the TMDLs. However, Amanda Carr, OCPW, referenced the October 5, 2022 letter during the County's presentation at the December 2, 2022 public hearing (see Santa Ana Water Board public hearing transcript, page 77) as did Orange County Coastkeeper (transcript pages 87-88), and Keith Garner, Esq., of Sheppard Mullin on behalf of the Irvine Company (transcript pages 91-92). Santa Ana Water Board staff provided responses to board member questions and comments on the October 5, 2022 letter during

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		the public hearing. (See transcript pages 140-142.) Orange County Public Works' July 14, 2023 comment letter submitted to the State Water Board also referenced the San Diego Water Board's October 5, 2022 letter (bottom of page 3 and in footnote 10 in the July 14, 2023 letter) and the City of Newport Beach included the October 5 letter in its comments to the State Water Board. (See response to Comments OCPW-2 through OCPW-5, above.)
OCPW-7	*The County has requested that, given the uncertainty regarding the ability of the implementation actions to achieve the desired dissolved copper concentrations (item I above), the Copper TMDLs be structured as a phased TMDL and ensure that the timelines for each phase be based on the expected completion of the associated tasks and the ability to assess progress. In addition, a viable (BMP)-based compliance pathway needs to be incorporated for the MS4 permittees instead of requiring compliance with a numeric limit that is not achievable.* (Emphasis in original.) The County has previously requested in written comments that the Copper TMDLs be structured as a Phased TMDL and	The Santa Ana Water Board responded to a similar comment in the SED 2022 and disagreed with the County that the Newport Bay Copper TMDLs should have been re-written as formal phased TMDLs using U.S. EPA 2006 guidance. The Santa Ana Water Board's response is summarized below. The Newport Bay Copper TMDLs already include an attainment schedule with interim milestones and a commitment to review and revise the TMDLs, if necessary, based on new data and information collected as part of adaptive management of implementation strategies, and time for studies needed to develop a water effects ratio adjustment of the CTR criteria and or site-specific objectives for copper for Newport Bay. The attainment schedule requires reductions in copper

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	establish timeframes for each phase based on expected completion of and ability to assess progress. This is critical to ensure that the Copper TMDLs have an appropriate and feasible implementation plan and an achievable compliance pathway. To this end, the County noted that USEPA guidance provides for the establishment of phased TMDLs in certain situations "where limited existing data are used to develop a TMDL and the State believes that the use of additional data or 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 <u>because there is little information regarding the loading capacity of a complex system such as an estuary and it is difficult to predict</u> <u>how a water body will react to the planned load reductions</u>. [emphasis added] The basis for this request includes, but is not limited to the following *[See Comments OCPW-7a-d, below]*:	loadings at different percentages over time, with a 20% reduction required in four (4) years, a 40% reduction in eight (8) years, and the final 60% reduction in 12 years. Additionally, the TMDLs also clearly state that if the CTR copper criteria are met *before* the end of the compliance period, then no further reductions in copper loadings are required. Regarding compliance pathways for the MS4 permittees, the freshwater tributaries and storm drains into Newport Bay are currently meeting their waste load allocations, so the MS4 permittees are currently in compliance with the Copper TMDLs. In addition, the Santa Ana Water Board provided dischargers the opportunity to develop and propose an alternative implementation plan that might supplement/revise the Implementation Plan in the proposed Copper TMDLs. That proposal was submitted on January 28, 2022. As previously described (see Appendix B-5 to the SED 2022), the proposed plan submitted by the dischargers did not describe or even anticipate development of a specific plan of action that would provide a reasonable expectation that copper impairments in Newport would be corrected within a certain timeframe. The Alternative Implementation Plan also failed to recognize the key role that the City, County,

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		marina owners/operators, and boat owners play as responsible parties/dischargers in achieving necessary reductions in copper discharges to Newport Bay. See also response to comment OCPW-1, above. Sufficient data are currently available and were used in the development of the Newport Bay Copper TMDLs to determine impairment. Data collected in 2019 (Anchor QEA for the City of Newport Beach; CDPR) and 2021 (Orange County 2022 Annual Stormwater Report) show that both upper and lower Newport Bay continue to be impaired for copper. The modeling used to develop the loading capacity for the Santa Ana Water Board's Copper TMDLs was similar to that used in the development of U.S. EPA's 2002 Technical TMDLs for Toxic Pollutants for the San Diego Creek/Newport Bay Watershed. U.S. EPA's model assumes a steady state, considers freshwater inputs from upstream, local inputs, tidal flux, and particle settling. U.S. EPA's model used parameters from Resource Management Associates' (RMA) finite element model that was developed for Newport Bay to determine loading capacity. While newer models for Newport Bay are in development, they are not currently available. As discussed above, approval of the Copper TMDLs does not preclude the ability to

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		revise the TMDLs in the future as new information becomes available.
OCPW-7a	• Need to Implement and Assess the Highest Priority Implementation Tasks Prior to Implementing and Expending Resources on Additional Activities - 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.	The Newport Bay Copper TMDLs provide flexibility and encourage the dischargers to develop their own implementation plans, while taking into consideration the Santa Ana Water Board's implementation recommendations. The dischargers can set their own priorities for their different implementation tasks in their implementation proposals.
OCPW-7b	• 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. 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	The Santa Ana Water Board adequately responded to similar comments in the SED 2022 (see Appendix B-4 response to County of Orange's Comment 2.5, page 71) and at the Santa Ana Water Board December 2, 2022 public hearing (Santa Ana Regional Water Quality Control Board transcript of the December 2, 2022 public hearing, see bottom of page 61 and second paragraph on page 64; Water Board staff slide 50). The Santa Ana Water Board's responses are summarized below.

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	copper concentrations (and attainment of the CTR criteria) from the Marine Antifoulant Model to Predict Environmental Concentrations (MAM-PEC) are realized within the marinas.	CDPR has undertaken a long-term monitoring study of marinas in California and the Santa Ana Water Board is working with CDPR to ensure that the Board is kept updated on the progress of the study. Results of the study can be used to revise and update the Newport Bay Copper TMDLs as deemed necessary and can inform dischargers. But it is not necessary to postpone approval of the Copper TMDLs pending those final study results. Additionally, CDPR acknowledges that the conversion to lower leach rate copper-based antifouling paints alone is unlikely to achieve the CTR chronic criterion for dissolved copper (3.1 µg/L) in the large marinas. CDPR expects that BMPs (and other mitigation measures) will be used **concurrently** with these lower leach rate paints. (CDPR Memorandum of January 30, 2014, "Determination of Maximum Allowable Leach Rate And Mitigation Recommendations for Copper Antifouling Paints Per AB 425", pp. 3-4 detailing recommended mitigation measures.) Additionally, in its November 16, 2017 letter to the Santa Ana Water Board's Executive Officer, CDPR explicitly stated that the copper leach rate cap alone "will not always achieve continuous compliance with the California Toxics Rule (CTR) for the few large saltwater marinas (i.e., greater than 1,300 boats) where water quality standards

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		are already exceeded. As a result, CDPR issued several recommended mitigation measures to aid in achieving compliance that includes best management practices (BMPs), reduced frequency for in-hull water [*sic*] cleaning, outreach, consideration of site-specific objectives, and fostering new and existing incentive programs to convert copper-painted boat hulls to those painted with alternatives. (CDPR letter from George Farnsworth to Hope Smythe, Executive Officer, Santa Ana Water Board, November 16, 2017, p. 2). (See also, CDPR, California Notice 2018-02 issued January 12, 2018, titled "New Regulations for Copper-Based Antifouling Paint Pesticide Products," in which CDPR reiterates its plans to promote comparable voluntary mitigation efforts to accompany the lower leach rate cap established in section 6190 of title 3, Cal. Code Regs, effective July 1, 2018.) As responded previously in the SED 2022 and responses to above Comments OCPW-2 through OCPW-5, the Santa Ana Water Board is aware of only limited efforts by the County of Orange and the City of Newport Beach, as the primary grantees of the tidelands and submerged lands in Newport Bay, to implement CDPR's mitigation recommendations. most of which are incorporated into the recommended implementation tasks for the Copper TMDLs.

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OCPW-7c	• Additional Time is Needed to Understand Barriers to Implementing the AFP Replacement Process - Stakeholders in the other two Southern California Copper TMDL waterbodies (SIYB and Marina Del Rey) 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 numerous challenges.	The Santa Ana Water Board has responded to similar comments in the SED 2022. (See Appendix B-4, responses to County of Orange's Comment 2.6, pages 71-72.) The Santa Ana Water Board's response is summarized below and in response to comment OCPW-2. The Santa Ana Water Board is aware of the challenges that stakeholders are facing in considering replacing their copper-based antifouling paints with alternative non-biocide paints. However, the Newport Bay Copper TMDLs do not *require* the replacement of copper hull paints but the reduction in copper discharges from the paints applied to boat hulls over a reasonable twelve-year timeframe. Please see response to comment OCPW-2 regarding the differences between Newport Bay and SIYB. In addition, Santa Ana Water Board staff continues to work with staff from both the Los Angeles and San Diego Water Boards on implementation of their respective Copper TMDLs. Both the County of Los Angeles and the Port of San Diego have converted some of their boats to effective, non-biocide alternative hull paints and have implemented and continue to implement several of CDPR's recommended

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		management measures (e.g., diver certification). See also response to Comment OCPW-5 regarding the commitment to review and/or revise the TMDLs under certain circumstances.
OCPW-7d	• <u>Final Attainment Date Does Not Allow the Time Necessary to Complete and Assess the Full Suite of Implementation Tasks</u> - The TMDL establishes a final attainment date of "no later than 12 years from the date of approval by USEPA." This timeframe does not allow 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. 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 of full implementation.	The Santa Ana Water Board has responded to similar comments in its responses to comments document of August 2021. (SED Appendix B-4, page 73.) Section 5.6.3.1 of the 2022 Staff Report (SED Appendix A, page110) provides the following justification for the 12-year attainment schedule: *"It is expected that all boats in the Bay will be repainted over a 12-year period as part of routine maintenance. Accordingly, a maximum 12-year schedule to achieve the requisite 60% reduction in Cu discharges from Cu AFPs is proposed…The percent reductions identified in the interim schedule are based on the time expected to be required to implement reasonably foreseeable measures to achieve the reductions…these measures include the use of BMPs during hull cleaning, such as the use of soft cloths or a container/filter method of hull cleaning, the development and implementation of diver (underwater hull cleaner) certification/education programs for hull cleaning, and boat owner/boatyard education programs. Since these measures are*

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		already in place in other areas where Cu TMDLs have been adopted due to impairment of the water column by Cu from boats (i.e., Shelter Island Yacht Basin, Marina del Rey), it is expected that comparable programs can be developed and implemented for Newport Bay in approximately 1-2 years, or less…the expectation of a minimum 20% reduction as the result of the implementation of BMPs within 4 years after the effective date of the TMDLs is reasonable." As the Santa Ana Water Board noted in the SED 2022, the City of Newport Beach and County of Orange, the primary grantees of tidelands and submerged lands in Newport Bay have made only limited efforts to address copper discharges (see City of Newport Beach, Resolution No. 2010-0053), and also to the State Water Board's knowledge have not yet implemented the mitigation recommendations that CDPR's lower leach rate regulation of 9.5 µg/cm^2/day includes (California Notice 2018-03); nor have they implemented the other mitigation recommendations made by CDPR. CDPR's 2018 lower leach rate rule of a maximum allowable leach rate of 9.5 µg/cm^2/day assumes a cleaning frequency for boat hulls of no more than once per month and the use of BMPs during in-water hull cleaning.

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		As detailed in response to comment OCPW-7b, CDPR also highly recommends the following mitigation measures, among others: • Increase boater awareness and consideration of copper AFP alternatives (as the City of Newport Beach included in their Resolution No. 2010-0053); • Foster new incentive programs and continue to support existing programs to convert copper painted boat hulls to those painted with alternative antifouling boat paints; • Develop site-specific objectives for copper for certain marinas or harbors. Finally, if appropriate, the Santa Ana Water Board can revisit the interim or final attainment schedules in the TMDLs as they are implemented, and additional data are evaluated. (See response to Comment OCPW-5.)
OCPW-8	[T]he County proposed a detailed, phased approach for the Copper TMDLs for consideration by the Santa Ana Water Board in the *Alternative Implementation Plan for Copper TMDL within Newport Bay* (January 28, 2022). The County submits that the response provided by the Santa Ana Water Board to this comment was inadequate and incorrect. The Santa Ana Water Board deemed the	The Santa Ana Water Board responded in detail to the Alternative Implementation Plan dated January 28, 2022. (See Attachment B-5 to the SED 2022.) The Plan was also discussed in detail at the public hearing to adopt the TMDLs. (See December 2, 2022, public hearing transcript, pages 83 and 98.) The Santa Ana Water Board adequately responded to the *Alternative Implementation Plan,* explaining in responses to comments why the Santa Ana Water Board's proposed implementation plan is appropriate and well

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	alternative implementation plan "unacceptable and must be rejected" outright, without any follow up conversation and/or considerations for modifications that the Water Board would find acceptable. Some of the reasons that the Santa Ana Water Board noted were (*in italics*): [Additional specific comments are addressed individually below in 8a-8c.]	supported and not replaced with the Alternative Implementation Plan. The Santa Ana Water Board provided the following reasons for adopting the TMDL implementation plan proposed by staff (also refer to detailed responses to the alternative implementation plan in Attachment B-5 to the SED 2022): a. The proposed implementation plan relies on the incorrect legal premise that the County and City of Newport Beach (and any other local agency) are not legally able or responsible to address copper reductions from boats. i. The City/County are the primary grantees of the tidelands and submerged lands within the City of Newport Beach and as such hold the lands in trust for the public and have control over these lands. (See, e.g., chapter 74, Statutes of 1978, and as amended by Senate Bill No. 1577 in 2012.) b. The proposal relies on an initial eight-year period of actions exclusively by State agencies, including CDPR, the Department of Motor Vehicles, and the Department of Boating and Waterways, to achieve copper reductions that the Santa Ana Water Board has no authority to require.

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		c. Therefore: i. There is no reasonably foreseeable method of implementation of the County/City proposal, and thus no reasonable assurance that copper impairments in Newport Bay will be corrected. ii. Since the proposal fails to provide assurance that copper impairments will be corrected, it is unacceptable as a TMDL implementation plan. d. Insufficient justification was provided for the proposed Phase I and II schedules, which could allow as much as 24 years to achieve the Newport Bay Copper TMDLs. i. Per U.S. EPA, a phased TMDL approach may be appropriate where there is significant data uncertainty and the State believes that the use of additional data, or data based on better analytical techniques, would likely increase the accuracy of the TMDL load calculation and merit development of a second phase TMDL. These circumstances do not apply to the proposed Copper TMDLs. (See also response to Comment OCPW-7, above.) ii. The County/City proposal does not include requirements to achieve interim copper

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		reductions from boats—only a timeline to achieve final compliance. e. The Implementation Plan adopted as part of the Copper TMDLs includes the requirement for TMDL reconsideration once identified tasks have been completed. The Water Board can elect to revisit the TMDLs at any time, based on new data and information, including the development of a site-specific objective. To date, no discharger has proposed development of site-specific objectives for copper in Newport Bay. (See also response to Comments OCPW-1 and OCPW-2.)
OCPW-8a	*The proposal relies on actions by State agencies, including DPR, to achieve Cu reductions that the Santa Ana Water Board has no authority to require*. • Since it is widely recognized that legally available Cu AFPs are the largest sources of Cu to the Bay, and that the TMDLs require the reduction of Cu discharges from Cu AFPs in order to meet the TMDLs, it is critical that the Santa Ana Water Board work collaboratively with other state agencies such as DPR, Department of Boating and Waterways, etc. in order to effectively address this source	The SED 2022 documents that the Santa Ana Water Board has worked closely with other state agencies during the development of the Copper TMDLs. The Santa Ana Water Board responded to similar comments stating the TMDLs do not require the County to *"compel boat owners to purchase and/or use alternative AFPs."* Rather, the TMDLs recommend that the primary state land grantees (County of Orange and City of Newport Beach) consider mitigation measures as recommended by CDPR (see OCPW-7b), including providing incentives to boat owners to replace copper-based antifouling paints with alternative (non-biocide) paints, provided those paints do not

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	(especially since the County cannot compel boat owners to purchase and/or use alternative AFPs). • The complexity and complications of this source does not squarely fall on local agencies and must be addressed in a creative way and by the agencies who have more authorities and less limitations than the County.	result in significant adverse environmental impacts. While state agencies coordinate efforts to address water quality impairments, the Alternative Implementation Plan would rely for the first eight years on agencies that do not have the authority to directly address discharges of copper from hull paints into Newport Bay. The California Department of Boating and Waterways provides information in their "Top Ten Clean Boating Tips." These tips include minimizing boat cleaning and maintenance in the water and the reduction of toxic discharges from bottom paints. However, the Department of Boating and Waterways does not have the regulatory authority to require boat owners to reduce toxic discharges from hull paints. The California Department of Motor Vehicles addresses the registration of recreational and commercial vessels (all motorized boats and sailboats over 8 feet in length that are not required to be documented by the U.S. Coast Guard), not boat paints. These state agencies have no authority over the discharges of biocides or other chemicals from antifouling paints to Newport Bay. The

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		California Water Boards also have no authority over these other state agencies to require them to implement the Copper TMDLs. CDPR addresses the registration, sale and use of biocide-based antifouling paints including copper-based antifouling paints, while the Water Boards address discharges and the environmental effects from these paints once they have been applied to vessels. (See also response to Comment OCPW-1 and OCPW-8, above.)
OCPW-8b	*There is no reasonably foreseeable method of implementation of the County/City proposal, and thus no reasonable assurance that Cu impairment in Newport Bay will be corrected.* • This response is unclear and inadequate to the County because the implementation plan tasks largely include many of the same implementation tasks from the final BPA, they are just phased differently and focus first on the state actions for copper anti-fouling paints and monitoring by the local agencies before requiring additional actions. • Further, the response seems to imply	The Santa Ana Water Board explained that it lacks authority to direct other State agencies to take actions to reduce copper discharges from boats that use copper-based antifouling paints or to otherwise develop regulations that limit or ban their use where the state agencies are not responsible parties/dischargers of copper from antifouling paints. The SED 2022 Staff Report (Appendix A) documents the continued impairment of Newport Bay for copper in the water column and the need for a TMDL to address the impairment (see e.g., staff report, sections 5.0-5.1); explains why U.S. EPA's 2002 Technical TMDLs for copper require greater load reductions than may be necessary to attain the water column numeric targets; and explain why

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	that the final BPA had a reasonable assurance analysis as a part of the documentation, which the County is unaware of either within the Staff Report or the SED. Rather, there are a series of assumptions that are made as to what is "reasonable" to require and what resulting reductions in water quality are "reasonable" to expect. • Given the recent assessment by the San Diego Water Board for the SIYB, the County would submit that the Santa Ana Water Board should not assume that the implementation plan currently proposed provides reasonable assurance that the targets and allocations can be met.	it is reasonable to expect that these CTR-based numeric targets can be achieved over a 12-year attainment schedule. (See staff report, section 5.6.3.1 and response to Comment OCPW-7d.) In contrast, the Santa Ana Water Board discussed that the proposed schedule in the Alternative Implementation Plan did not explain how the required reductions to achieve the numeric targets would occur over the same or equivalent time period. [(See SED 2022 Appendix B-4, responses to the City of Newport Beach's Comments 4 (page 13) and 9.8 (page 24) and response to County of Orange's Comment 2 (page 69)]. (See also response to Comment OCPW-8c.i and c.ii in this document.)
OCPW-8c	*No justification was provided for the proposed Phase I and II schedules, which could allow as much as 24 years to achieve the Cu TMDLs.* • The County respectfully disagrees and submits that this is inaccurate. The Alternative Implementation Plan and Supplemental Fact Sheet provides the background and rationale for the phased approach and schedule. The proposed approach was modeled after another TMDL that was successfully adopted	The Santa Ana Water Board previously responded to similar comments. The Santa Ana Water Board's response is summarized below. The phased approach suggested by the County was modeled after the TMDLs for Selenium in Freshwater, for the Newport Bay watershed. The State Water Board has reviewed those TMDLs and noted they were adopted as phased TMDLs because the selenium water quality objectives (CTR criteria)

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	by the Santa Ana Water Board. • In fact, one of the comments previously raised by the County was that there is little /no justification for the interim schedule or the final compliance timeframe based on the Copper TMDLs Implementation Plan Tasks. 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. The Santa Ana Water Board response to the previous comments and again to the August 2021 comments was nonresponsive in that there was no technical analysis that was provided to ensure that there is a viable compliance pathway that could achieve these required timeframes.	were in the process of being revised;[3] and additional data were needed to revise and refine the model used to convert selenium tissue concentrations measured in fish and aquatic-dependent bird eggs into surrogate water column concentrations (to determine WLAs and LAs). In the case of the Newport Bay Copper TMDLs, the water quality objectives are not in flux and sufficient data are available and evaluated to determine impairment. Thus, the County's proposed Alternative Implementation Plan is not appropriate or viable to achieve the numeric targets within a reasonable timeframe. Regarding justification for the interim attainment schedule, see response to Comment OCPW-7d. Please also see response to Comment OCPW-5 regarding the commitment to review and/or revise the TMDLs under certain circumstances as necessary. The Santa Ana Water Board responded to prior comments about the need for compliance options for the MS4 dischargers. (See SED Appendix B-4, responses to County of Orange's Comments, GC2 (page 58), 1.4

[3] The revised CTR criterion for selenium was published in the Federal Register on December 17, 2024.

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		(page 67), and 3 (page 75).) The mass-based waste load 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. Since tributary runoff has been assessed and is already meeting the proposed allocation, there is no obvious reason to include further language providing compliance options or pathways. Additionally, the Basin Plan Amendment provides direction regarding the application of the TMDLs in permits. (See "Assumptions and Requirements of Mass-based Allocations" (page 8-9) and notes to Tables 6 and 8 (pages 10 and 12, respectively).) For compliance with the wasteload allocations for the Bay, copper antifouling paints on boats have been clearly identified as the most significant source of copper 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, dry dock storage of boats or use of boat lifts). (See responses to Comments OCPW-3, 7.b and 7.d in this document.)
OCPW-9	*The County shares the City of Newport Beach's concerns regarding the unintended consequence and reasonably foreseeable introduction of Perfluoroalkyl*	The County's support of the City of Newport Beach's comment letter dated July 17, 2023, is noted. Regarding Santa Ana Water Board consideration of PFAS compounds, see

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	and Polyfluoroalkyl Substances (PFAS) into Newport Bay through the requirement to use alternative antifouling paints. Although the City provided the details of this concern to the Santa Ana Water Board during the adoption hearing in December 2022, the Santa Ana Water Board has not identified if or how it has considered this new information and no formal response has been provided. Although the SED considered some alternative AFPs, it did not consider or analyze the potential effects of AFPs that contain PFAS and/or the limited ability to mitigate the effects of the use of these types of paints both in terms of leaching while the boats are moored as well as potential impacts from hull cleaning. Given that PFAS are recognized as an emerging contaminant of concern, the potential use of AFPs that contain high concentrations of PFAS is a serious issue that needs to be assessed prior to the adoption of the Basin Plan Amendment. The County supports the comment letter from the City to the State Water Board regarding this matter.	responses to Comments MN-8 and MN-10 in this document.

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OCCK-1	We urge you to approve Santa Ana Regional Water Quality Control Board's ("Santa Ana Water Board") final amendment to the Water Quality Control Plan for the Santa Ana River Basin to incorporate Total Maximum Daily Loads ("TMDLs") for copper in Newport Bay ("Basin Plan amendment" or "Copper TMDLs")	Comment noted.
OCCK-2	The proposed timeline for compliance is too long. The TMDL includes a twelve-year timeline for compliance. This is arbitrary and does not match the other existing Copper TMDLs. 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. We also feel the ten-year TMDL timeline should begin from the date of its adoption by the Regional Board on December 2, 2022.	A similar comment was received and responded to by the Santa Ana Water Board in its August 2021 Responses to Comments document (SED 2022, Appendix B-4). The Santa Ana Water Board's response is summarized and elaborated on below. A maximum 12-year timeline is appropriate to reach a 60% reduction of copper discharges from copper antifouling paints, based on the time likely needed to implement copper reduction strategies. In addition, there is an interim attainment schedule such that copper discharges from boats must be reduced by 20% in 4 years, 40% in 8 years and 60% in 12 years. This timeframe allows sufficient time for boaters to switch to lower leach rate copper bottom paints or alternative, non-biocide paints, some of which may require removal of the existing copper paint prior to application of the new non-biocide paint.

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		The SIYB 2005 TMDL requires a 17-year staged compliance period schedule, not 10 years. While the Marina del Rey Harbor dissolved Copper TMDLs requires a 10-year compliance period (i.e., 2024), the Newport Bay Copper TMDLs only provides for an additional two years in the attainment schedule (up to12 years), which falls between the compliance periods for the SIYB and Marina del Rey Harbor dissolved Copper TMDLs. The Copper TMDLs will not become effective until approved by other agencies (including the State Water Board, Office of Administrative Law, and U.S. EPA). While voluntary actions may be taken prior to final approval of the TMDLs by U.S. EPA, the Water Boards cannot require implementation or enforcement of the TMDLs' provisions through regulatory actions until the final approval is received.
OCCK-3	TMDL history in Orange County has shown that longer compliance timelines do not result in the attainment of TMDL goals. In fact, the City of Newport Beach and the County of Orange have gone to great lengths to delay the adoption of this TMDL, which was originally on track for adoption in 2016, six years before its eventual adoption by the Regional Board. During that time the city and county have made no effort to	Comment noted. Data collected from Newport Bay in 2019 for the City of Newport Beach and by the CDPR continue to show impairment due to dissolved copper in the bay [CDPR. A. Burant, X. Zhang, N. Singhasemanon, and J. Teerlink. Study 319 Report: Monitoring of Dissolved Copper in California Coastal Waterbodies. (Data from 2019.); City of Newport Beach, August 30, 2021 comment letter re Regional Board Meeting/Workshop on October 15, 2021, related

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	encourage boaters to reduce the use of copper bottom paint. The City of Newport Beach website only has outdated information on the TMDL implementation process and the City's Harbor Department webpage does not mention copper as an issue at all. County websites also lack information on copper bottom paint reduction strategies. Instead, they have wasted Regional Board staff time with unsubstantiated arguments about the TMDL conclusions, and City funds on additional water quality studies that just confirmed that the bay is impaired for copper.	to the Basin Plan Amendments to Incorporate Total Maximum Daily Loads for Copper in Newport Bay, Attachment 6 - Map), as does 2021 data from the OCPW Annual Stormwater Report for Newport Bay (2022).]
OCCK-4	The City and County instead insist that relying on the implementation of the State Department of Toxic Substances Control [*sic*] regulations on copper leach rates will solve the copper impairment problem, while simple math shows this is not possible. The fact that the City has initiated litigation against the Regional Boards adoption of the TMDL, before it is even fully approved, shows their continued lack of intent to take action to implement the TMDL requirements.	It appears that Orange County Coastkeeper's comment mistakenly refers to the Department of Toxic Substances Control (DTSC) rather than the CDPR. Effective July 1, 2018, CDPR established a maximum allowable copper leach rate of 9.5 $\mu g/cm^2$/day for all copper-based antifouling paints and coating products labeled for use of recreational vessels. As discussed in response to comment OCPW-7b, CDPR recognized that implementation of the maximum allowable copper leach rate beginning July 1, 2018 would not necessarily achieve water quality standards for copper in densely populated

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		marinas and harbors. Therefore, the copper leach rate regulation also includes recommended management measures, such as diver education and certification and the use of soft cloths when cleaning copper antifouling paints. (November 16, 2017 letter to H. Smythe, Santa Ana Water Board Executive Officer from G. Farnsworth, CDPR Assistant Director re CDPR's regulation of copper-based antifouling paints and the Santa Ana Water Board's ability to set a TMDL for copper, p. 2; *Department of Pesticide Regulation, Determination of Maximum Allowable Leach Rate and Mitigation Recommendations for Copper Antifouling Paints per AB 425*, January 30, 2014.)
OCCK-5	The State Water Board needs to send a strong message to the City and County that efforts to achieve TMDL goals are mandatory, and that there will be real consequences for not meeting them. There is no requirement for the Regional Board to use a compliance date that corresponds to the approval of the TMDL by the USEPA.	(See second paragraph in response to Comment OCCK-2, above.) The Newport Bay Copper TMDLs are not effective until all approving agencies (i.e., the State Water Board, Office of Administrative Law, and U.S. EPA, in order of review) have reviewed and approved the TMDLs. U.S. EPA approval is required under the Clean Water Act as appropriate.
OCCK-6	Allowing a twelve-year timeline, plus two years of waiting for additional approvals, in addition to the six year delay in developing the TMDL, results in a twenty year TMDL. This is unacceptable. Copper bottom paint is replaced at an interval of three years. A ten-year compliance timeline means three	See responses to Comment OCCK-2 and a similar comment in Santa Ana Water Board staff's responses to August 2021 comments (Appendix B-4 to the SED 2022).

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	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 TMDL should have a timeline of ten years or less.	
OCCK-7	It is important that the State Board recognize that Upper Newport Bay is designated as a State Marine Conservation Area (SMCA). This is a significant issue as the SMCA includes two large marinas and residential docks holding about 350 boats. 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	The proposed Copper TMDLs are intended to correct water column impairment due to dissolved copper in both 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 under the federal Clean Water Act Section 303(d) requirements to achieve and maintain water quality standards. Prioritization of copper reduction activities in Upper Newport Bay should be considered as part of the approval of the implementation plan(s) developed by the dischargers. However, an expedited attainment schedule for the CTR chronic criterion in both the Upper Bay and Lower Bay Upper Bay is unlikely to be achieved, given that reductions of copper discharges from copper antifouling paints on boats, most of which are in the Lower Bay and lower Upper Bay (DeAnza and Newport Dunes

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	permits or discharge conditions, including prohibitions within these areas."…We believe that the Upper Newport Bay SMCA should be designated as a State Water Quality Protected Area by the Regional Board, and the boats in the upper bay should be prioritized for copper reduction activities within six years	marinas) are necessary to meet the criterion. Reducing copper discharges from copper bottom paints throughout the Bay would reduce copper concentrations in the Upper Bay since tidal action reaches far into the Upper Bay and into the very lower part of San Diego Creek, the largest freshwater tributary to Upper Newport Bay.
OCCK-8	Coastkeeper supports the existing "Santa Ana Water Board's Basin Plan amendment for Copper TMDLs, but it can be improved by requiring a December 2, 2022 start date with a ten-year timeframe. We also support an expedited six-year compliance schedule for boats in the Upper Newport Bay SMCA, and its designation as a State Water Quality Protection Area. As always, Coastkeeper supports the use of the best available science to determine the compliance requirements for this or any regulatory activity.	(See responses to Comments OCCK-2 and OCCK-7, above.)
MN-1	[T]he control of discharges of pollutants from marine vessels is a complex area of law where several federal laws and regulations overlap, including, but not limited to, the Nonindigenous Aquatic Nuisance Prevention and Control Act of 1990, the National Invasive Species Act of 1996, the Clean Water Act, and U.S. EPA	The Santa Ana Water Board responded to similar comments regarding the regulatory framework for addressing discharges of copper from anti-fouling paints in the SED 2022. (See Appendix B-4, response to G. Newmark Comment L.1.2, pages 36-38.) This response summarizes the Santa Ana Water Board's prior responses.

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	and U.S. Coast Guard regulations, just to name a few that regulate millions of boats. The Copper TMDL frustrates the careful balance within this complex framework governed at the federal and state levels, including, but not limited to, several state agencies like the California Department of Pesticide Regulation ("CDPR") and the California Department of Boats and Waterways, as discussed in our submission to the Regional Board on January 28, 2022, which provided an alternative framework to reduce copper. Many state and federal programs apply to water quality and vessel standards, that, due to the mobile nature of marine vessels, must be handled primarily at the federal and state levels only. The Copper TMDL is not limited to local concerns and targets a key aspect of boat hull maintenance that relies upon the use of CuAFPs. The October 25, 2022 Staff Report for the Copper TMDL ("Staff Report") proposed implementation actions [that] are preempted by the federal Clean Water Act ("CWA) and the 2008 Clean Boating Act ("CBA"), as we set forth in the supplemental fact sheet for the January 28,	U.S. EPA has publicly supported adoption of these TMDLs; it has not indicated that the State is preempted from adopting or implementing them due to operation of the Vessel Incidental Discharge Act (VIDA), the Clean Water Act, or the 2008 Clean Boating Act. In 2002, U.S. EPA also established Technical TMDLs for copper as well as other metals for both upper and lower Newport Bay (U.S. EPA, Total Maximum Daily Loads for Toxic Pollutants, San Diego Creek and Newport Bay, California, June 14, 2002). As indicated in response to Comment OCPW-2, the Santa Ana Water Board is required by the Clean Water Act to establish TMDLs for impaired waterbodies. While there are overlapping, and distinct state and federal authorities implicated in regulation of copper as a biocide and discharges of copper from hull paints incidental to the normal operation of vessels, this does not preclude the Santa Ana Water Board's obligation to develop TMDLs to address copper impairments in Newport Bay waters and sediment. Nor do these various authorities preclude eventual implementation of the TMDLs to address and correct the current water quality impairments. While regulation of discharges of pollutants from marine vessels is a complex area of law, none of the federal and state laws or regulations the commenter has identified interferes with or

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	2022 alternative copper reduction framework.	preempts the Santa Ana Water Board's authority to adopt appropriate TMDLs, including an implementation plan as required by state law, to address copper impairment in Newport Bay. The Santa Ana Water Board has appropriately concluded that there was no legal or practical rationale either to decline to adopt, or to delay adoption of, the Copper TMDLs due to applicable state and federal law as further described below. The purpose of the 1990 Nonindigenous Aquatic Nuisance Prevention and Control Act (NANPC) is *"to prevent and control infestations of the coastal inland waters of the United States by the zebra mussel and other nonindigenous aquatic nuisance species…and for other purposes."* The 1996 National Invasive Species Act amends the NANPC to mandate development of regulations to prevent the introduction and spread of nonindigenous aquatic nuisance species into Waters of the United States through the management of ballast water. None of these regulations implicate copper discharges from copper-based antifouling paints on vessels. The Vessel Incidental Discharge Act (VIDA), enacted in 2018, added section 312(p) to the Clean Water Act and established a framework to regulate incidental discharges from normal operations of commercial vessels that are 79 feet or greater in length. The VIDA identifies

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		discharges from a protective, preservative, or absorptive application to the hull of a vessel as incidental to the normal operation of a vessel. (33 U.S.C. § 1322(a)(12)(A).) Through a phased approach, the VIDA will "exempt[] discharges incidental to the normal operations of a vessel from NPDES permitting requirements." (84 Fed. Reg. 3324-01, p. 3332.) Therefore neither U.S. EPA nor the State will directly regulate discharges incidental to normal operations of vessels, small or otherwise, through the *NPDES* program. Further, the VIDA exempts all discharges incidental to the normal operation of recreational vessels and all discharges incidental to the normal operation of small non-recreational vessels (less than 79 feet in length) and fishing vessels, except for discharges of ballast water, from its new regulatory regime. The VIDA immediately repealed the Small Vessel General Permit (33 U.S.C. 1322(p)(9)(C)(i)) and froze the Vessel General Permit in place until regulations implementing VIDA become final, effective and enforceable, at which time the Vessel General Permit will expire. (33 U.S.C. 1322(p)(3)(A), (C).) On October 9, 2024, U.S. EPA published its Final Rule establishing performance standard regulations required by the VIDA. (89 Fed. Reg. 82074 (Oct. 9, 2024). The regulations are set

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		forth in 40 CFR Part 139. While the effective date of the U.S. EPA's performance standard regulations is November 8, 2024, these regulations do not become effective until the "regulations promulgated by the Secretary [of the U.S. Coast Guard] pursuant to CWA section 312(p)(5) governing the implementation, compliance, and enforcement of the Federal standards of performance become final, effective, and enforceable." (89 Fed. Reg. 82074.) The U.S. Coast Guard's regulations are not yet final. At this time, U.S. EPA's Vessel General Permit and the State's corresponding section 401 water quality certification requirements continue to regulate discharges incidental to the normal operations of large commercial vessels (i.e., vessels 79 feet or greater in length). When U.S. EPA's performance standard regulations and U.S. Coast Guard regulations to implement and enforce them become final, effective and enforceable, the Vessel General Permit and the State's section 401 water quality certification will expire. (See 89 Fed. Reg. 82074, 82075 (October 9, 2024).) At that time, discharges incidental to the normal operation of large commercial vessels will be subject to regulation by U.S. EPA and the U.S. Coast Guard under VIDA. While the VIDA largely preempts state regulation of such vessels (33

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		U.S.C. § 1322(p)(9)(A)(i)), the VIDA also establishes a preemption *exception* for State requirements for large commercial vessels where the state's requirements are identical to federal requirements or with which compliance would be achieved concurrently while achieving compliance with the federal standard and the states may enforce violations through civil action. (See 33 U.S.C. § 1322(k)(3)(A) and (p)(9)(A)(ii)-(iii).) Additionally, while the VIDA prohibits states from adopting or enforcing more stringent requirements than established under the VIDA once the U.S. Coast Guard regulations are final, effective, and enforceable, the VIDA provides several mechanisms for states, working through the U.S. EPA or U.S. Coast Guard, to seek and obtain more stringent requirements within state waters, including the establishment of no-discharge zones for one or more incidental discharge(s). (See 33 U.S.C. 1322(p); see also 89 Fed. Reg. 82074, 82077.) Other than ballast water discharges, the VIDA *does not* apply to discharges incidental to the normal operation of *recreational* vessels subject to U.S.C. section 1322(o) (the 2008 Clean Boating Act) or to discharges incidental to the normal operation of small vessels or fishing vessels. (33 U.S.C. 1322(p)(2)(B)(i)(II) and (III).)

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		The 2008 Clean Boating Act, enacted as Clean Water Act section 312(o), authorized development of federal regulations to establish management practices for recreational vessels, and exempted most discharges incidental to the normal operation of recreational vessels from NPDES permitting requirements. (See 33 U.S.C. § 1322(o).) Importantly, the Clean Boating Act does not preempt state and local government regulation of recreational vessels that is broader in scope or more stringent than federally established management practices for recreational vessels. (33 U.S.C. 1322(o); see also 33 U.S.C. § 1370.) The Clean Boating Act contains no express preemption provision and U.S. EPA explicitly interprets the Clean Boating Act to allow states to establish management practices that are broader in scope and/or more stringent than federal management practices established under the Clean Boating Act. ("While the CBA will establish a nationally-applicable set of management practices, state and local governments may establish practices that are broader in scope and/or more stringent than those established under the CBA. Vessel owners must comply with the most stringent laws." (About the Clean Boating Act (CBA) | US EPA, accessed January 11, 2024.)

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		As a result, the Santa Ana Water Board retains authority to adopt the Copper TMDLs and to regulate discharges of copper from antifouling paints incidental to the operation of commercial vessels less than 79 feet in length, as well as recreational and fishing vessels under state law. The federal regulations to implement the VIDA are not applicable to copper discharges from recreational, small commercial, and fishing vessels in Newport Bay. (See 33 U.S.C. § 1322(p)(9)(vi).) And when federal regulations to establish federal management practices under the Clean Boating Act are eventually in effect, affected vessels, including recreational vessels of any size, must comply with any more stringent state regulations. When the VIDA regulations are final, effective and enforceable, as discussed above, VIDA will restrict the state's ability to regulate discharges of copper waste from large commercial boats under state law differently than as specified in VIDA's regulations. Until that time, the 2013 VGP and corresponding state certification continue to apply. As identified in the Staff Report in section 5.6.2.1, per the U.S. Coast Guard in a personal communication dated February 2022, there are approximately 15 commercial vessels 79 feet or greater present in Newport Bay harbor at any given time. (See SED 2022, Appendix A, Staff

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		Report, p. 93). However, even when the VIDA regulations are final, effective and enforceable, the VIDA does not preempt or infringe on the state's authority and obligation to adopt TMDLs, required by federal law for the copper-impaired Newport Bay water bodies, and implement them consistent with VIDA and the Clean Boating Act. (33 U.S.C. § 1313(d).) The Copper TMDLs appropriately assign load and wasteload allocations to contributing sources of copper in Newport Bay and includes a plan of implementation as required by state law. (Wat. Code § 13242.) Additionally, while discharges of copper from large commercial vessels in Newport Bay primarily will be addressed through VIDA's regulations once they are final, effective and enforceable, U.S. EPA's regulations to implement the VIDA will establish general discharge performance standards for biofouling management, including for vessel hulls coated with antifouling compounds. Among other requirements, U.S. EPA's final VIDA performance standards, once effective, will "prohibit[ ] any discharge from in-water cleaning without capture of any copper-based hull coatings in a copper-impaired water body within the first 365 days after application of that coating. (40 CFR § 139.22(d)(5).) The performance standards also specify that "cleanings should take place in

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		drydock when practicable." (40 CFR § 139.22(d)(1).) U.S. EPA's final performance standards "require[s] that, as appropriate based on vessel class and operations, alternatives to copper-based anti-fouling coatings (e.g., non-biocidal anti-fouling coatings) or coatings with lower biocidal release rates be considered for vessels spending 30 or more days per year in copper-impaired waters or using these waters as their home port. 40 CFR 139.22(c)(6)." (89 Fed. Reg. 82074, 82117.)
MN-2	The Copper TMDL Implementation Plan requires revision because costs associated with implementing the Copper TMDL are significant and many of the costs are for implementation actions that have been proven not to be effective at achieving the standard the Regional Board has identified under the California Toxics Rule ("CTR").	The commenter does not specify what costs or what implementation actions they refer to or which actions, if any, have not been effective at achieving the CTR criteria. If the commenter is referring to the Shelter Island Hull Cleaning Pause study that acknowledged that actions taken by the Port of San Diego in the San Diego Region have resulted in significant reductions in copper concentrations but the water body will still not be able to meet the CTR criteria by the final compliance date (December 2023), then please refer to responses to Comments OCPW 2 through OCPW-6. (See response to Comment LIDO-1b for the Santa Ana Water Board's consideration of economics associated with implementation of the Copper TMDLs.)
MN-3	The Copper TMDL requires further revision to address the points raised in our August	The Santa Ana Water Board responded to comments raising significant issues, including

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	27, 2021 comment letters, including that the City is not a discharger and the deletion of the States Lands Commission remains unexplained[.]	arguments that the City is not a discharger and explaining why the State Lands Commission was removed from the table of proposed responsible party dischargers in in the 2022 Responses to Comments. (See SED 2022, Appendix B-4, responses to August 2021 comments, SED 2022, response to Comment L3, pages 41-42.) The Santa Ana Water Board's response is summarized and elaborated on below. The State Lands Commission was included as a discharger in an earlier iteration of the draft Copper TMDLs because the State Lands Commission has a residual interest in submerged lands and tidelands in Newport Bay. Subsequently, the Santa Ana Water Board learned that the State Lands Commission's residual interest is limited in scope, and the Commission lacks authority over the day-to-day management of the lands that would be necessary for the Commission to effectuate control over discharges of copper from boats in Newport Bay. As a result, the State Lands Commission was not included in the table of dischargers in the adopted Basin Plan amendment. In contrast, as the Santa Ana Water Board identified in responses to comments (see, e.g., SED, Appendix B-4 Response to August 2021 Comments, pp. 41-42), the Legislature has

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		granted the City of Newport Beach and the County of Orange the State of California's rights, title and interest in the submerged lands and tidelands in Newport Bay. (See Chapter 74, Statutes of 1978, amended by Chapter 317, Statutes of 1997 and further amended by Chapter 286, Statutes of 2012 as to City of Newport Beach, and see Chapter 415, Statutes of 1975, amending Section 1 of Chapter 526, Statutes of 1919, and as amended by Chapter 361, Statutes of 2004 as to County of Orange.) Thus, unlike the State Lands Commission, the City and County have broad managerial authority over the submerged lands and tidelands in Newport Bay. This authority positions the City and County, as land managers and lessors, to take steps, or require steps be taken, by marinas and boat owners, to address copper discharges to the Bay. See also SED 2022 (Appendix A, Staff Report, § 5.6.2.1.)
MN-4	The Regional Board has concluded that to reduce copper from CuAFPs requires conversion to "nonbiocide AFPs/coatings," as well as to lower-leach CuAFPs. (Id. at p. 90.) The highest priority of the proposed Copper TMDL's Implementation Plan is to reduce Cu discharges from CuAFPs.2 (Id. at p. 81.) Using mitigation measures alone is not expected to be "sufficient to meet the	The Santa Ana Water Board provided responses to similar comments when it adopted the Basin Plan amendment. (See, e.g., SED 2022 (Appendix B-4, responses to Comments 9.2, Att. 5, L1.1.a, L.1.1.c, and L.6).) Those responses are summarized below. Neither the Copper TMDLs nor the Santa Ana Water Board's supporting documentation

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	water quality objectives" (Id. at p. 86), which, therefore, means the use of CuAFPs must be reduced or banned in order to achieve the Regional Board's 60% reduction. Clearly, the only way to eliminate the copper from CuAFPs is to eliminate the use of the registered pesticides that are relied upon for antifouling.	conclude, as the commenter states, that *"…the only way to eliminate the copper from CuAFPs is to eliminate the use of the registered pesticides that are relied upon for antifouling."* The commenter references the SED 2022 (Appendix A Staff Report) but the referenced quotations are incomplete. For example, the commenter states that "[t]he Regional Board has concluded that to reduce copper from CuAFPs requires conversion to 'nonbiocide AFPs/coating,' as well as lower-leach CuAFPs." However, the complete sentences referenced actually state as follows: *"The waste load/load allocations for Cu discharges from Cu AFPs require a 60% reduction from the current inputs (Table 5-5). This reduction <u>may be achieved in part</u> by the conversion to lower leach rate Cu AFPs, and/or non-biocide AFPs/coatings [emphasis added]."* Additionally, the commenter's statement, "Using mitigation measures alone is not expected to be 'sufficient to meet the water quality objectives' (Id. [*sic*] at p. 86) which, therefore, means the use of CuAFPs must be reduced or banned in order to achieve the Regional Board's 60% reduction," inaccurately refers to language in the Staff Report (at p. 86). During consultation with CDPR on their proposed lower leach rate regulation for copper-based antifouling paints, both the Santa

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		Ana and Los Angeles Water Boards submitted a joint comment letter in 2014 to CDPR expressing concern that the implementation of these measures may not be sufficient to meet the water quality objective for dissolved copper (3.1 µg/L) in the largest marinas in southern California waters, including Newport Bay. However, the Staff Report (SED 2022, Appendix A) expressed general agreement "with CDPR's recommended mitigation measures, including the use of BMPs by all hull cleaners, boater education, changes to product labels, the distribution of hull-cleaning brochures and incentive programs for the conversion of boats from Cu to non-biocide or non-Cu AFPs." (SED 2022, Appendix A, § 5.6.1.1, p. 86.) A recent example of this type of incentive program is the Port of Los Angeles's incentive funding for zero-emission trucks. Finally, the 12-year compliance horizon, which would not begin until the Copper TMDLs are approved by U.S. EPA and become final and effective, allows dischargers to consider focusing first on employing mitigation measures such as those recommended by CDPR in conjunction with the use of the lower leach rate copper paints, and then to evaluate the success of those measures over time and implement modifications, as appropriate.
MN-5	In contrast to the Regional Board, U.S. EPA has found that there are no current	This comment refers at least in part to the regulations U.S. EPA proposed (and has now

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	safe substitutes for CuAFPs. U.S. EPA has explained: "[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].) U.S. EPA implicitly recognizes the need for *effective* pesticides, whereas the Copper TMDL does not.	made final) to implement VIDA, which primarily applies to non-recreational and non-military vessels (i.e., commercial vessels 79 feet and greater in length). U.S. EPA's regulations to implement VIDA were published in a final rule on October 9, 2024. (See response to comment MN-1 above.) The Santa Ana Water Board responded to similar comments in the SED 2022, noting that while U.S. EPA recognizes that copper-based antifouling paints are effective antifouling paints, U.S. EPA also acknowledges and in fact recommends in its then-proposed VIDA regulations, the use of other types of antifouling paints, including non-biocidal, antifouling paints based on the operational profile of the vessel. U.S. EPA determined that there are no direct substitutions for copper as a biocide that are as affordable or effective without posing similar risks to non-target aquatic species (U.S. EPA, 2018). As a result, the final rule does not require the selection of an alternative anti-fouling coating for vessels." (89 Fed. Reg. 82074, 82117 (October 9, 2024).). However, consistent with the proposed rule, the final rule does not *require* the use of alternative coatings. The rule does require that depending on the "vessel class and operations, alternatives

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		to copper-based coatings (*e.g.,* non-biocidal anti-fouling coatings) or coatings with lower biocidal release rates be considered for vessels spending 30 or more days per year in copper-impaired waters or using these waters as their home port." (*Ibid*.) Additionally, U.S. EPA's final rule specifies that "[t]he use of non-biocidal and non-ablative anti-fouling coatings, when practicable, are recommended . . . [and] "requires the selection of an anti-fouling coating for the hull and associated niche areas must be specific to the vessel's operational profile, and that any biocidal anti-fouling coatings must have appropriate biocide release rates and components that are biodegradable once separated from the vessel surface. 40 CFR 139.22(c)(1)." (89 Fed. Reg. 82074, 82115) Like U.S. EPA's final regulations, the Copper TMDLs do not *require* the use of alternative coatings for any vessels. Finally, contrary to the commenter's statement, the record does not indicate that the Santa Ana Water Board made any determinations of safety regarding any copper antifouling paint substitutes.
MN-6	In response to some of the City's August 27, 2021 comments, the Regional Board suggests EPA actually supports alternatives to CuAFP based on an isolated reference that some boats with unique operational profiles "should select either	U.S. EPA recognizes the harmful effects of copper used as a biocide. U.S. EPA's website for Aquatic Life Criteria – Copper (https://www.epa.gov/wqc/aquatic-life-criteria-copper) states that "A major source of copper in the marine environment is antifouling paints,

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	non-biocidal coating or coatings with low biocide discharge rates" if the boats operate on water "with lower biofouling pressure," "spend less time at dock," or have other operational parameters (such as traveling at high speeds) that could support alternative AFPs. (SED, App. B-4, Resp. To 2021 Comments ("RTC") at p. 31.) But this EPA statement does not represent EPA's recommendation for non-copper AFPs. EPA has not said that the agency recommends non- copper AFPs, but, rather, has said that in some unique operational profiles it might be possible to use such products if a number of factors support such use, including acceptable biofouling pressure…. * * * * U.S. EPA has no recommendation on nonbiocidal AFPs except to observe that in some instances, based on various operational parameters that EPA is itself evaluating, nonbiocidal coatings might work and should be considered.	used as coatings for ship hulls, buoys, and underwater surfaces…Copper is an essential nutrient at low concentrations, but is toxic to aquatic organisms at higher concentrations. In addition to acute effects such as mortality, chronic exposure to copper can lead to adverse effects on survival, growth, reproduction as well as alterations of brain function, enzyme activity, blood chemistry, and metabolism." The final rule establishing performance standards to implement VIDA does provide recommendations regarding use of non-biocidal anti-fouling paints. (See response to Comments MN-1 and MN-5, above.) Regardless of U.S. EPA's position on efficacy and appropriateness of any alternative paints, federal law requires establishment of a TMDL to address waters impaired by pollutants. "[A] regional board is required to establish a TMDL 'at a level necessary to implement the applicable water quality standards with seasonal variations and a margin of safety.' (33 U.S.C. § 1313(d)(1)(c).)" (*City of Arcadia v. State Water Resources Control Bd.* (2006) 135 Cal.App.4th 1392, 1428.) The Clean Water Act's mandate to the Santa Ana Water Board applies regardless of U.S. EPA's stance on use of paint alternatives to copper antifouling paints and regardless of the practicality in terms of achievability. (*Ibid.*)

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		Further, "[a] TMDL is an informational document, not an implementation plan . . . It does not by itself prohibit any conduct or require any action." *(Conway v. State Water Resources Control Board* 235 Cal.App.4th 671, 680 (2015) (citing *City of Arcadia v. U.S. Environmental Protection Agency* (N.D. Cal. 2003) 265 F.Supp.2d 1142, 1144). The Copper TMDLs do not ban or restrict the use of copper paints, do not require dischargers to ban or restrict the use of copper paints, and do not require the use of any specific alternative paints. Rather, the Copper TMDLs recognize that reductions in copper discharges are necessary to attain the water quality objective for copper in Newport Bay. Responsible party dischargers will be required to develop strategies to address the copper impairment in Newport Bay waters and may consider encouraging or incentivizing the use of alternative paints as a strategy to attaining the TMDLs. While the TMDL includes an Implementation Plan as required by Water Code section 13242, the Implementation Plan is not self-implementing. And the TMDLs' Implementation Plan states that conversion of copper-based antifouling paints on some boats may be necessary, in addition to recommended mitigation measures, to achieve the reductions. Further, use of alternative paints is recommended but not required for any

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		particular number or percentage of boats in Newport Bay. The Santa Ana Water Board's response to comments recognizes that while alternative paints exist and may be effective, challenges exist in ascertaining the ingredients in different alternative paints and the study process is evolving. (See SED 2022, Appendix-B-4, response to Comment 3, p. 12, response to Comment L.6, pp. 50-51, and response to Comment 9.2, p. 20; see also response to Comment MN-8, below.)
MN-7	The Copper TMDL and the Copper TMDL Implementation Plan set specific levels of copper to be achieved in Newport Bay and amounts of copper that can be loaded from source categories; this makes the Copper TMDL a rule or regulation that requires a performance standard or treatment requirement and, thereby, triggers the CEQA requirement under section 21159 of the Public Resources Code to perform "an environmental analysis of the reasonably foreseeable methods of compliance." Such an analysis must also include (a) an analysis of foreseeable mitigation measures, (b) an analysis of foreseeable alternative means of compliance, and (c) an analysis that takes into account a reasonable range of environmental, economic, and technical factors.	The commenter did not raise the applicability of Public Resources Code section 21159 to development of the Copper TMDLs in their comments to the Santa Ana Water Board and has not explained why it could not have raised the issue prior to the Santa Ana Water Board's adoption of the Copper TMDLs as specified in the applicable regulations. (See Cal. Code Regs., tit. 23, § 3779, subd. (f)). Therefore, the State Water Board is not considering the comment but nonetheless provides the following response. A SED prepared under the Water Boards' certified regulatory program is functionally equivalent to an environmental impact report and satisfies the requirements of Public Resources Code section 21159 by addressing the provisions in section 21159, subdivision (a). (See 14 Cal. Code Regs., § 15187(b) (". . . for those State Agencies whose regulatory programs have been

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	…. In addition, the "environmental analysis shall take into account a reasonable range of environmental, economic, and technical factors, population and geographic areas, and specific sites. *The agency may utilize numerical ranges and averages where specific data is not available, but is not required to, nor should it, engage in speculation or conjecture*." (CEQA Guidelines, § 15187(d) (emphasis added).)	certified by the Resources Agency pursuant to Section 21080.5 of the Public Resources Code, an environmental document prepared pursuant to such programs satisfies the requirements of this section, provided that the document contains the information specified in subdivision (c).".) See also, *Friends, Artists & Neighbors of Elkhorn Slough v. California Coastal Com.* (2021) 72 Cal.App.5th 666, 695.) The Santa Ana Water Board's SED 2022 recognized the applicability of Public Resources Code Section 21159 and CEQA Guidelines section 15187 (see SED 2022, section 1.1 (pp. 6-10).) Further, the Santa Ana Water Board evaluated the applicable provisions in section 21159, subdivision (a) in the SED 2022 at sections 4.0-4.2 and section 8.0 of the SED and in responses to comments. (SED Appendix B-4, Response to Comment L-6.) The SED 2022 clearly states that the Santa Ana Water Board is not required to, nor should it, engage in speculation and conjecture in its environmental analysis when establishing TMDLs. Additionally, courts have recognized that a tiered environmental analysis is appropriate in the context of establishing a TMDL (See *Conway v. State Water Res. Control Bd.* (2015) 235 Cal.App.4th 671, 680.*City of Arcadia*

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		v. State Water Resources Control Bd. 2006 135 Cal.App.4th 1392, 1425.) (See also response to Comments MN-17 and MN-18, below.)
MN-8	The copper in the bay originates primarily, but not exclusively, from AFPs, which are important pesticides boat owners use on boats to prevent hull fouling and introduction of invasive aquatic species. Invasive species in California coastal waters threaten the environment, economy, and human health. The Regional Board adopted the Copper TMDL in violation of CEQA requirements by, among other things, not analyzing foreseeable environmental impacts that will occur if, instead of using AFPs, the boat owners used alternative products. The Regional Board's October 25, 2022 SED does not fully account for these reasonably foreseeable impacts; it completely fails to consider the human health impacts (or health impacts to the aquatic ecosystem) of introducing perfluorocarbons into the Bay through the use of non-biocide AFPs. The SED must examine whether the use of non-biocide AFPs will have health impacts to humans or the aquatic ecosystem if such paints are adopted as an alternative to the current CuAFPs.	The Santa Ana Water Board sufficiently responded to similar comments in the SED 2022 (Appendix B-4, Response to Comment L6, pages 50-51) and Santa Ana Water Board staff also discussed reasonably foreseeable impacts associated with potential use of alternative paints during their oral comments at the public hearing. (Santa Ana Water Board's December 2, 2022 public hearing transcript, see e.g., pp. 35-36; Santa Ana Water Board staff presentation slides 37 and 38.) This response summarizes and elaborates on the Santa Ana Water Board's prior responses. The SED 2022, which includes Santa Ana Water Board staff's written responses to comments and oral comments at the public hearing, addresses the potential effects on Biological Resources (human and aquatic) of the reasonably foreseeable methods of compliance with the proposed Copper TMDLs. This includes the potential for increased hull fouling and introduction of invasive species if boats coated with non-biocide antifouling paints travel to Newport Bay from other ports. Mitigation measures to address these potential impacts are

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		identified in the SED 2022 and include consideration of a requirement for hull cleaning of boats from ports outside of Newport Bay before they come into the Bay. (See SED 2022, discussion in IV. Biological Resources, a.) The SED 2022 also addresses the potential environmental impacts of the use of non-biocide antifouling paints, and states that limited studies have been completed to evaluate the potential environmental and public health effects of non-biocide antifouling paints. PFAS compounds, which may be ingredients in non-biocide antifouling paints, are emerging contaminants of concern for which only a few studies have been conducted. However, no viable empirical studies or substantive and credible evidence(s) has yet been established that can be used to draw any statistically reliable inferences that use of non-biocide antifouling paints will release PFAS at levels detrimental to the aquatic ecosystem and human health. Currently, it's premature to draw any such conclusion until specific PFAS compounds are identified, and the potential level of threat or risk is determined to aquatic ecosystem and human health by the appropriate regulatory agency(ies). Most of the non-biocide antifouling paints and biocide antifouling paints [per S. Anghera, Moffat & Nichol, August 4, 2021 memorandum to G. Newmark, Meyers | Nave, page 1, Introduction] *"do not have full disclosure*

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		of the ingredients" and "many of the compounds being used have not been tested for use in marine systems." Currently, the amount and types of PFAS compounds that may be used in non-biocide paints are not known, nor is there any information regarding potential passive leaching or active leaching from particles released during underwater hull cleaning from these paints. PFAS are present in thousands of products used in the boating industry including gelcoat, waterproof clothing, sails, coatings, paints, varnish, sealants, solvent and water based adhesives, food packaging, lithium-ion batteries, fire-fighting foam and marine hardware like latches, hinges, cleats, mounts and grab bars (Royal Society of Chemistry, 2020 (Glüge et al., 2020), as reported in Practical Boat Owner, "The proposed PFAS ban and the implications for the marine industry", K. Strickland, June 15, 2023.) The Royal Society of Chemistry report provides an overview of the uses of PFAS compounds and found that PFAS are used in almost all industry branches and many consumer products and identified more than 200 use categories and subcategories for more than 1,400 individual PFAS compounds (Glüge et al., 2020, Environmental Science: Process and Impacts, Volume 22, pp. 2345-2373).

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		The ubiquity of PFAS in an urbanized environment makes it difficult to determine the relative contribution of sources such as boats to the overall concentrations of PFAS that may be found in marine waters, such as Newport Bay. However, there are non-biocide silicon antifouling paints that do not have PFAS added to their formulas (Langström et al., 2022, Mar. Poll. Bull. 184. 114102, Are silicone fouling release coatings a viable and environmentally sustainable alternative to biocidal antifouling coatings in the Baltic Sea region?; Practical Boat Owner, "The proposed PFAS ban and the implications for the marine industry", K. Strickland, June 15, 2023). Because of the persistence and known toxicity of PFAS, many paint manufacturers and other industries are reducing or eliminating the use of these chemicals in their products. Given the limited information available about the ingredients in some non-biocide anti-fouling paints and their effectiveness at reducing fouling, the Santa Ana Water Board identifies conversion of boats from copper to non-biocide paints as a potential strategy for reducing copper discharges from copper antifouling paints to Newport Bay. While it is a recommended strategy, the TMDLs do not require dischargers to employ this strategy when proposing implementation strategies for the

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		Copper TMDLs. (See, e.g., SED 2022 Appendix B-4, Response to Comments, Responses Att.5, p. 26, L1.1.c, p. 35, L.6, p. 50.) When choosing a non-biocidal alternative paint, boat-owners should consider paints that are fluorine-free and that are advertised as not containing PFAS (Lagerström, et al. 2022; Port of San Diego et al. 2016. Boater's Guide to Using Hull Paint in California). Finally, the Santa Ana Water Board discussed during the public hearing that research regarding the effectiveness and potential impacts of ingredients in non-biocide antifouling paints will evolve but the 12-year attainment schedule, coupled with the additional years through U.S. EPA approval before the 12-year schedule begins, allows time for stakeholders and the Santa Ana Water Board to react and take into consideration the latest available credible scientific information as well as to consider proposed revisions to the TMDLs or their implementation plans. (Santa Ana Water Board December 2, 2022 public hearing transcripts, Item 16, pp. 138-145.) (See also responses to Comments MN-11 and MN-12.)
MN-9	The Copper TMDL Staff Report makes clear that the only way to meet the Copper TMDLs is to reduce or eliminate the use of	The commenter attributes the statement "*the only way to meet the Copper TMDLs is to reduce or eliminate the use of Cu biocidal AFPs by*

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	Cu biocidal AFPs by restricting the "sale and use." (Oct. 25, 2022 Staff Report §5.6.1.1 and pp. 86, 90.) Low-leach CuAFPs alone would not meet the TMDL even with the implementation of best management practices. (Id. at p. 90.) The main strategy of reduction would be boat conversions to non-copper AFPs. (Id. at p. 110.) The Revised SED also states that it is highly unlikely the Regional Board will approve any plan that involves moving to non-Copper biocide AFPs. (SED, p. 53.) Therefore, the only remaining option to comply with the Copper TMDL is non-biocide AFPs.	*restricting the 'sale and use'"* to the Copper TMDLs Staff Report and inaccurately concludes that "the only remaining option to comply with the Copper TMDL is non-biocide AFPs." The section of the Staff Report referenced by the commenter is correct, but the statement attributed to that section of the report is inaccurate. Section 5.6.1 discusses the regulatory authorities (CDPR and U.S. EPA) that can restrict the sale and use of biocidal paints, including copper-based antifouling paints. The only mention of the "sale and use" of a biocidal hull paint that has been banned is U.S. EPA's partial (1998) and global (2008) ban on tributyltin antifouling paints. (2022 Staff Report, Section 5.6.1.1, page 83.) Additionally, the commenter's assertion that the Copper TMDLs 2022 Staff Report on page 90 states that "Low-leach CuAFPs alone would not meet the TMDL even with the implementation of best management practices" is incorrect; this statement cannot be found in either the 2022 Staff Report or the SED 2022. It is to be noted that, the Santa Ana Water Board responded to a similar comment during the public comment period for the SED 2022. That response stated that CDPR and the Santa Ana Water Board expect implementation of the lower leach rate copper antifouling paints, *without concurrent implementation of best management practices*, is unlikely to achieve the required reductions.

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		Consistent with this statement, the Santa Ana Water Board acknowledged in response to comments, and stated "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." (SED 2022, Appendix B-4, Response 2.5., p. 71, bold text in original].) The Santa Ana Water Board also responded to similar comments when it adopted the Basin Plan amendment and made it clear that conversion to non-biocide antifouling paints is not the only option for achieving the TMDLs. Instead, the SED 2022 further makes it clear that conversions to alternative non-biocide antifouling paints are not required. The SED 2022 states, "Rather, these conversions are a potential TMDL compliance strategy 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

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		entire boating community will need to convert to alternative AFPs in order to achieve necessary reductions." (SED 2022, Appendix B-4, Response to Comment L1.1.a.) Finally, the commenter references page 53 of the final SED 2022 to assert that the Santa Ana Water Board is "highly unlikely" to approve any plan that involves moving to non-copper biocide antifouling paints. The SED 2022 states that *"The conversion of boats from Cu AFPs to non-Cu biocides, rather than non-biocide or lower leach rate Cu AFPs, is not recommended."* While the SED includes this in the statement, which the commenter has quoted, the commenter instead erroneously concludes that *"Implementation plans proposed by the dischargers that include conversions to non-Cu biocide AFPs are not likely to be approved by the Santa Ana Water Board…."* However, the statement in the SED referenced by the commenter continues as follows, *"…unless the discharger demonstrates that no violations of water quality standards will occur as the result of implementation of such plans." [emphasis added].* (SED 2022, p. 53.) This caveat provides an option for at least the limited use of non-copper biocide antifouling paints.

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		Contrary to the commenters' assertion, the SED 2022 and supporting documentation does not conclude that the only way to comply with the Copper TMDLs is through use of non-copper biocide paints. Rather, the Santa Ana Water Board recognized that the dischargers may propose a variety of implementation strategies to achieve the required reductions and cautions that "with the use of all AFPs, mitigation measures should be implemented, including hull cleaning BMPs (e.g., the use of soft cloths or a container/filter system, and application and cleaning of antifouling paints in accordance with labeling instructions) to minimize adverse effects." (SED 2022, p. 53.) Moreover, with the 12-year implementation schedule, dischargers will have the opportunity to implement strategies to reduce copper discharges, evaluate their effectiveness and modify approaches to achieve copper reductions. Finally, the SED 2022 is a program level environmental document developed under the Water Boards' certified regulatory program and serves as a functional equivalent of an environmental impact report. (*Friends, Artists and Neighbors of Elkhorn Slough et. al, v. California Coastal Comm'n* (2021) 72 Cal.App.5th 666, 694-695.) A TMDL "does not by itself prohibit any conduct or require any actions. (*City*

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		of Arcadia v. U.S. Environ. Protec. Agency (N.D. Cal. 2003) 265 F. Supp.2d 1142, 1144.) Instead, a TMDL represents a goal for the level of pollutant in a water body. (*Ibid.*) Thus, only a first-tier analysis is necessary." (*Conway v. State Water Res. Control Bd,* (2015) 235 Cal.App.4th 671, 680.) "A TMDL does nothing more than establish maximum loads. Remediation measures are beyond the scope of the TMDL; thus, beyond the scope of the first-tier environmental analysis necessary for a TMDL." (*Id., Conway,* 235 Cal.App.4th at 680-681.) Consistent with the *Conway* decision, in which dredging was a proposed remediation or implementation measure, the adoption of the Copper TMDLs is subject to a first tier or program level environmental review. Discharger implementation strategies and approaches to reducing copper discharges will be subject to project level environmental review at which time environmental impacts of proposed implementation actions will be evaluated. (See also response to Comment MN-4 and OCPW-7 in this document.)

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MN-10	The City presented substantial, expert evidence to the Regional Board that the vast majority of non-biocide AFPs have very high levels of polyfluoroalkyl substances ("PFAS") that can and will leach into Newport Bay. The City tested product alternatives the Regional Board identified and found that they contain per- and PFAS, a ubiquitous and harmful chemical that has triggered new federal and state standards, including some standards under the Regional Board's jurisdiction. Thus, it is a reasonably foreseeable, and indeed likely, impact of the Copper TMDLs that non-biocide AFPs will be used resulting in PFAS contamination of Newport Bay. Despite this finding, the Regional Board failed to adequately address the environmental impacts of implementation of the Copper TMDL, as is required under CEQA and its regulations.	The commenter is referring to the presentation by Dr. Margaret H. Whittaker, ToxServices LLC., at the December 2, 2022 Santa Ana Water Board public hearing. Dr. Whittaker presented the results of a study discussed in the August 4, 2021, memorandum from Dr. Shelly Anghera, Moffatt & Nichol, to Gregory Newmark, Meyers | Nave, documenting the results of the laboratory analysis of non-biocide alternative antifouling paints (also referenced by Dr. Whittaker in her presentation). This study by Dr. Wwhittaker on non-biocide alternative antifouling paints cannot be directly used for regulatory decision making due to the several scientific and method limitations. Particularly, this study requires real-world field testing such as conducting multi-year field trials in diverse marine environments, expanded environmental risk assessment such as leachability studies to measure release of paint material over time, toxicity testing on marine organisms (e.g., fish, shellfish, corals), and assess degradation products to determine if harmful compounds form over time. Dr. Whittaker's laboratory analysis study on non-biocide alternative antifouling paints focused on evaluating the efficacy and environmental impacts of these paints as compared to traditional biocide-containing paints. This study

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		has several limitations that were identified and summarized below: • The study relied on laboratory conditions, which is unlikely to replicate the complex environmental factors affecting antifouling performance in real world marine settings thus sufficient field testing is required. • The duration of the tests was relatively short, overlooking long term efficacy and durability of non-biocide paints. • Differences in application techniques and thicknesses were not consistently controlled likely influencing the performance outcomes. • Factors such as water temperature, salinity, and microorganism presence that can impact antifouling effectiveness were not comprehensively accounted for in the study design. • The study did not include a direct comparison with a wide range of traditional biocide-containing paints, limiting the context for evaluating the relative performance of non-biocide alternatives. Typically, in part, the regulatory approval of paints requires a comprehensive risk assessment including potential impacts on aquatic life, water chemistry, sediment quality, leachability (whether the coatings release harmful compounds over

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		time); and bioaccumulation (potential persistence and accumulation of coating materials in aquatic ecosystems). The study prioritized hazard evaluation over a full risk assessment, which typically encompasses both hazard and exposure analysis. This study did not compare non-biocide alternatives with multiple traditional biocide-paints under identical conditions. It also lacks direct comparative data to evaluate if non-biocide alternatives meet or exceed current performance standards. The study also should have used standardized test protocols for antifouling performance and environmental safety and to align with internationally recognized standards such as those developed by ASTM D6990-Antifouling Coatings Testing, International Maritime Organization (IMO) guidelines on antifouling systems, and EU Biocidal Products regulations. Furthermore, the study's findings require peer review and industry validation such as submitting the study to high impact scientific journals for independent peer review, and collaborating with industry leaders, shipbuilders, and environmental agencies for stakeholder validation, etc. There is no evidence that standardized protocols, and a scientific peer review was conducted.

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		Finally, the study relied on laboratory-based testing, which does not fully represent real-world conditions such as varying salinity, water flow/hydrodynamics, biofouling pressures, etc. Regulatory agencies typically, at a minimum, require real-world performance data to ensure efficacy over extended periods in multiple aquatic environments. The Santa Ana Water Board's SED 2022 sufficiently evaluated the reasonably foreseeable methods of compliance with the Copper TMDLs as required in section 3777(b) of the certified regulatory program regulations and both considered, and addressed, the potential for some non-biocidal alternative paints to contain PFAS substances (fluoropolymers or perfluorocarbons, SED 2022, pp. 51 and 100). The Santa Ana Water Board found the above-referenced study to be scientifically unsound and therefore unreliable. While the Santa Ana Water Board responded to Dr. Whittaker's presentation during the hearing, the State Water Board identifies the following additional and specific concerns regarding the analytical results: • Use of EPA 537 (modified): EPA 537 is only validated for the analysis of drinking water and

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		by method definition should not be modified/used for analysis of other matrices. • The study does not explain what modifications were applied to the EPA 537 method protocol. The study also does not document what procedural steps or quality assurance requirements the lab followed that were or were not consistent with EPA 537; nor is there any explanation provided of the method performance, or the quality of data produced by this modified method, and no method validation package was provided. It is therefore unclear whether this modified method will meet the Santa Ana Water Board's quality assurance, quality control, and data acceptance requirements. For example, EPA 537 is not an isotope dilution method. However, the laboratory is using isotopic dilution analogues (IDAs) in their EPA 537 (modified) method which leads to the assumption that the lab is utilizing an isotopic dilution method. Similarly, the acceptance criteria that are identified in the lab report are different than those acceptance criteria in EPA 537. • All analytical tests were done beyond the holding time, which invalidates the laboratory's modified method. • Use of EPA 3535 (extraction protocol): This extraction method is not appropriate for extraction of chemicals from paint samples.

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		This method is for the extraction of chemicals from aqueous samples like groundwater and wastewater. • The study reveals some uncertainty in the "detectable" results. There are two qualifiers that come into question with these results. All "detectable" results were j-flagged, which means they are below the reporting limit but above the detection limit; a region that is always considered "estimated." Most of these results are closer to the detection limit region (i.e., the ability to distinguish signal from instrument background noise). Additionally, some have "I" qualifiers because the transition mass ratio to identify the PFAS analyte was outside the acceptable ratio limits, which means the lab likely used "analyst judgement" to determine whether the peak they were looking at was truly the analyte. • The presentation also does not explain why the initial analysis of the diluted paint samples was re-extracted for PFOA and PFBS while the other PFAS analytes were measured from the original extraction. The calibration curve results are not provided, and the final results are barely over the detection limit for the analysis, which does not make sense. Additionally, only the results for PFOA and PFBS are reported from that re-extraction. All the other PFAS analytes that were measured are reported from the original extraction/analysis, which indicates

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		that the lab thought the sample extraction and analysis for those specific PFAS were acceptable and reportable, but not for PFOA and PFBS, which is why the initial analysis of the diluted paint samples were re-extracted for re-analysis of these two compounds. • Table 3 in the Moffat & Nichol memorandum does not show the analytical results, but primarily the method detection limits (MDLs) from the laboratory analytical analyses. The table did include six results, shown in bold font in the table, that were flagged as being just above the method detection limit and below the reporting limit. These are also known as J-flagged or estimated concentrations. The MDLs are elevated because of the dilution that was conducted on the samples before they could be analyzed. − Of the four samples submitted for analysis, only six detectable results of PFAS compounds were reported by the lab and all were flagged as falling between the reporting limit [RL] and the MDL. − The single PFOA result (ePaint EP-21) was j-flagged as an estimated value, H-flagged for being outside the holding time and I-flagged as an estimated maximum possible concentration (EMPC). − PFDoA, which was only detected in the Hullspeed Smart Armor A sample, was also I-flagged.

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		• The study lacks statistical comparisons made relative to antifouling paints that are currently in widespread use. • The study did not include control of a variety of copper-based antifouling paints to demonstrate that they have significantly less (or no) PFAS compounds in their formulations. • No analysis of variance (ANOVA, i.e., a statistical method used to analyze the differences between the means of two or more groups or treatments) can be performed to identify a difference from switching from a copper-based biocide paint to a new non-biocide paint product because multiple paint brands were used in the study. In her presentation to the Santa Ana Water Board on the proposed Copper TMDLs, Dr. Whittaker also compared the potentially high concentrations of PFAS compounds in the four tested boat paints to U.S. EPA's drinking water health advisory level for PFOA, which would not apply to marine waters or the paints themselves. (See December 2, 2022 hearing transcripts, pp. 72-73 and Dr. Whittaker's PowerPoint presentation, slide 13.) Dr. Whittaker did not provide information about whether these paints would leach PFAS compounds into surface waters, and if so, what

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		the leach rates would be; nor did Dr. Whittaker reference any studies on the impacts of these compounds on marine waters or marine organisms. Therefore, while the August 4, 2021 letter from Dr. Anghera and Dr. Whittaker's presentation of that information address the issue of PFAS in non-biocide hull paints, the conclusions are flawed for the reasons discussed above. The additional information presented in the letter and presentation does not render the Santa Ana Water Board's environmental analysis insufficient. The Santa Ana Water Board recognized that dischargers would need to consider alternative paints and evaluate the appropriateness of their use as part of their TMDL implementation strategies. Additionally, the Santa Ana Water Board is required to adopt TMDLs to address continued impairment due to copper in Newport Bay and the TMDLs include an implementation plan with an implementation schedule under state law to achieve the required reductions. The selection of implementation actions by dischargers responsible for addressing the impairments must consider the environmental effects of implementation actions to address the impairments.

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		(See also response to Comment MN-7 and MN-9.)
MN-11	The SED ignores and deflects the City's evidence. Instead, the Revised SED cites to a State of Washington study (SED at pp. 25, 51) that examined the effectiveness of non-biocide AFPs to prevent the spread of invasive species, but which does not provide evidence regarding the potential for PFAS contamination. Dr. Margaret H. Whittaker, the City's expert, co-authored the first assessment for the Washington State Department of Ecology and has also evaluated the recent findings related to PFAS. Contrary to the Regional Board's findings and characterization of the state of Washington studies, Dr. Whittaker explained in her December 2, 2022 testimony that to date there is not a safer alternative to CuAPFs.	The Santa Ana Water Board evaluated the State of Washington Study in the SED 2022 (see Appendix A, Staff Report, pp. 122-123) and also considered and responded to Dr. Whittaker's oral presentation at the public hearing. (See response to Comment MN-10.) The Santa Ana Water Board's prior responses are summarized and elaborated upon below. The Santa Ana Water Board explained that the use of non-biocide antifouling paints is a potential method of compliance but acknowledged in the SED that the lack of available information on the concentration of the PFAS compounds that may be used in non-biocide paints, the leach rates associated with these paints, and information as to whether PFAS substances in the paints can leach into the aquatic environment, or documentation of the potential impacts of these bottom paints on the aquatic environment or potentially on human health, are not currently known. Section IV, pages 51-53 of the SED 2022, states the following: It is possible that some of the reasonably foreseeable methods of compliance with the

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		proposed TMDLs could have a direct or indirect adverse impact on biological resources, including some of the listed or candidate species of concern. This potential impact may result from the use of non-biocide AFPs, which may allow the introduction of invasive species and may contain ingredients (such as fluoropolymers) that could adversely affect the biota directly. There is limited information available concerning the potential environmental effects of non-biocide AFPs (see 4.1.1.(3)). Complicating factors are that many of the paints do not have full disclosure of ingredients because of the manufacturers' proprietary rights and many of the compounds being used have not been tested for use in marine systems, and new non-biocide paints continue to be developed. As stated previously (4.1.1.(3)), the State of Washington Department of Ecology found that while certain non-biocide AFPs show potential as an effective alternative to Cu AFPs, long-term monitoring and evaluation are needed to assess environmental impacts. This finding was reaffirmed in the Department of Ecology's 2019 follow-up report to the Washington Legislature (Antifouling Paints in Washington State – Report and Recommendations. *Report to the Legislature Pursuant to SHB 2634 (2018)*. September 2019). Again, as noted in Section 4.1.1.(3) of the SED, the Department

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		also concluded that safer (less potential environmental harm) alternatives to biocidal AFPs include "painting boats with non-biocidal paints and using brushes or other washing systems to remove fouling organisms." This option would avoid the direct chemical effect on water quality and wildlife produced by toxic AFP options. The Department's 2019 Report also identified some emerging technologies that focus on fouling avoidance (e.g., dry docking of boats), which would reduce or eliminate the use of AFPs altogether. The long-term monitoring and evaluation needed to assess environmental impacts, as mentioned by the Washington State Department of Ecology, should yield additional information. By the time the TMDLs begin to be implemented and within the first four years 20% reduction timeframe, more information should be available to help dischargers evaluate the appropriateness of alternative paints. For these reasons, while it is a potential method of compliance, the Santa Ana Water Board's Copper TMDLs identify conversion to non-biocide antifouling paints as a recommended strategy, but not a required one. The Santa Ana Water Board also encourages dischargers to more fully evaluate any non-biocide antifouling paints prior to implementing voluntary

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		conversions to these paints. Dr. Whittaker's conclusion that to date "*there is not a safer alternative to CuAFPs*" does not take into consideration the well-established effects of copper-based antifouling paints on aquatic organisms in waterbodies impaired for copper such as Newport Bay. Moreover, even if non-biocide antifouling paints containing PFAS substances require further evaluation at a site-specific level to understand the potential for these substances to leach into waters in Newport Bay, this lack of data does not undermine the need for the Copper TMDLs or adequacy of the Santa Ana Water Board's environmental analysis for the Copper TMDLs. The Santa Ana Water Board's SED 2022 specifically states that conversion of boats from copper antifouling paints to non-biocide paints is recommended for dischargers to consider but not required. (SED 2022, Section 4.1.1(3), page 24.) However, any City of Newport Beach or Orange County led measures that include the use of alternative paints would be subject to project-level environmental review. Additionally, the Santa Ana Water Board must comply with CEQA when issuing non-NPDES waste discharge requirements. The Santa Ana Water Board's SED 2022 also acknowledged the informational limitations

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		concerning alternative antifouling paints. For example, the Santa Ana Water Board stated that in addition to paint conversions, "[o]ther strategies include the use of BMPs for hull cleaning and the use of other BMPs such as dry docking, slip liners, boat floats." (SED 2022, Appendix B-4, p. 26, response to Attachment 5 (August 11, 2021 memorandum from S. Anghera and B. Corlett, Moffatt & Nichol, to J. Kappeler, City of Newport Beach.) Pursuant to the proposed TMDLs, the City (and County and other dischargers) are required to submit their own proposed implementation plan(s) to reduce copper discharges from copper antifouling paints. Such strategies may account for changing paint formulations and boater confidence considerations. Issues of changing formulation and boater confidence must be considered in any event as the result of CDPR's recent maximum leach rate determination for copper antifouling paints, and the need for boaters to switch to a lower leach rate copper paint, may involve the use of new formulations. 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

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		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 several alternatives that are safer to use than copper or other biocide antifouling paints. These include some non-biocide antifouling paints, as well as using boat lifts and other 'dry dock'-like fouling avoidance options." (See SED 2022, Appendix B-4, Response to Comment 9.8, Attachment 5, p. 26.)) The State Water Board acknowledges Dr. Whittaker's assessment that "Current chemical disclosure laws in the U.S. do not require complete disclosure of chemical composition, making it difficult to assess safety of alternative AFPs" and that "Current hazard communication laws in the U.S. do not require assessment of disclosure of environmental hazards, adding to the challenge of vetting alternative AFPs." (Note, these disclosure and communication laws apply to many different products that contain chemicals, not just non-biocide antifouling paints. [See, e.g., Toxic Substances Control Act (15 U.S.C. § 2601 et seq. (1976)), which authorizes U.S. EPA to regulate certain new and existing chemical substances that U.S. EPA determines pose an unreasonable risk to health or the environment.]

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		While Dr. Whittaker's presentation identified issues for consideration, the information is incomplete and does not undermine or invalidate the substantial evidence supporting the regional board action. It is reasonable for the Santa Ana Water Board to expect that dischargers will consider available science and related information to inform implementation plans and particularly, the proposed use of alternative antifouling paints. Additionally, regardless of whether copper antifouling paints or alternative antifouling paints are used, BMPs such as diver education and training, the use of soft pads while cleaning boat hulls or the container/filter method for hull cleaning; the use of other measures such as slip liners, boat lifts, boat floats, or dry docking, coupled with the ongoing use of lower-leach rate copper paints per CDPR's action, are expected to result in the reduction of both active and passive leaching from the antifouling paint used, thereby resulting in reductions in copper or other compounds being discharged into Newport Bay. (See also response to Comment MN-10 in this document.)
MN-12	The Regional and State Boards cannot simply ignore the reasonably foreseeable impacts that the Copper TMDLs will result in PFAS impacts to Newport Bay. The	The Santa Ana Water Board responded to comparable comments when it adopted the Copper TMDLs and has not ignored reasonably foreseeable impacts concerning potential PFAS

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	State Board should require that the Regional Board go back and examine the potentially significant impacts on human health and the marine environment that will occur with large scale transition from Copper AFPs to non-Copper AFPs that contain high levels of PFAS.	impacts. Instead, it considered them in light of information available at that time, and recognized the importance of evaluating information about PFAS or other constituents in antifouling paints as information becomes available. However, the Santa Ana Water Board also concluded that many of the potential impacts from PFAS or PFAS-type compounds could not be quantified or could not be mitigated and were outweighed by the ongoing persistent violations of the CTR water quality criteria for copper in Newport Bay. At elevated concentrations, copper is toxic to aquatic organisms, including plants and animals that form the base of the food chain for other organisms, such as birds. The biological beneficial uses of Newport Bay are not maintained or protected as the result of dissolved copper impairment. Therefore, there is a need to consider conversion of some boats to non-biocide paints. While some non-biocide paints may contain PFAS-type compounds, consideration of potential impacts associated with these compounds is necessarily speculative due to the lack of currently available information. (See also response to Comment MN-11.) In part because of this lack of available information, the Santa Ana Water Board identified conversions to non-biocide antifouling paints as a recommended, but not required,

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		compliance strategy, provided that additional evaluation of environmental impacts at the project level is completed. In the SED 2022, the Santa Ana Water Board stated, *"[T]he 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 [emphasis added]. 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, or boat floats*" to limit discharges from copper antifouling paints. (See SED 2022, Appendix B-4, response to Comment 9.8, Attachment 5, p. 26.) No large-scale transition from copper antifouling paints to non-copper antifouling paints of any type (either other biocide-based antifouling paints or alternative non-biocide antifouling paints that may contain PFAS compounds) is required. (See Response to Comments MN-10.) While PFAS have been shown to bioaccumulate in some marine food webs, there is little information on whether and to what extent PFAS compounds in boat paints may have on these food webs. While some organisms such as invertebrates and finfish may feed on

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		biofouling organisms (e.g., bacteria, algae, bivalves, barnacles), there is no information currently available on whether this contributes to bioaccumulation of these compounds in higher trophic level predators. Given the lack of available information on the concentration of the PFAS-type compounds that may be used in non-biocide paints, the leach rates associated with these paints, and information on whether the PFAS-type compounds in the paints can leach into the marine environment and impact aquatic organisms and/or affect human health, impacts from PFAS-type compounds in alternative anti-fouling paints is not currently known. Additionally, there are non-biocidal paints that do not contain PFAS (e.g., Nippon Paint Marine, Chemco International, Finsulate, and Armus Marine paints; see also Lagerström et al. 2022). The Santa Ana Water Board has cautioned in the Copper TMDLs that additional environmental analysis of alternative paints should be conducted by dischargers at the project-specific level prior to implementation, especially because new information about PFAS and alternative paints is evolving. (See e.g., SED 2022 Section 8.0, Findings and Statement of Overriding Considerations, p. 101; and comment by staff Eric Lindberg, "[t]he reality is that the PFAS situation is changing so

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		rapidly that we may not be considering the paints that would actually end up being used." (December 2, 2022 public hearing transcript, p. 143.) (See also responses to Comments MN-8 through MN-11.)
MN-13	The Regional Board's SED identifies at least three potentially significant impacts (biological, water quality, and cumulative), but does not identify any proposed mitigation measures for these impacts. Instead, the SED states that the implementation of mitigation measures is "within the jurisdiction of the responsible agencies identified in the TMDLs" and that these agencies "can and should implement mitigation measures." In fact, the Regional Board proposes to issue waste discharge requirements or other directives directly to boat owners (Staff Report, pp. 90-91), and therefore should have adopted its proposed WDRs or other directives as mitigation measures and shown how they are enforceable….. 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 Santa Ana Water Board responded to similar comments when it adopted the Copper TMDLs (SED 2022 Appendix B-4, Response to Comment L6) and did not neglect to identify or analyze mitigation measures. The SED 2022 (page 100) provides descriptions of suggested mitigation measures that are currently available, which include, for example, an inspection/cleaning protocol that would require boats that have travelled to ports outside of Newport Bay to have their hulls cleaned before they leave their last port prior to mooring, docking, or berthing in Newport Bay. Under the applicable regulations, the Santa Ana Water Board is required to perform an environmental analysis of the reasonably foreseeable methods of compliance with the Copper TMDLs. The analysis must include, at a minimum,

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	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.) …. It is a violation of CEQA to neglect to identify mitigation measures and to analyze the potential for these measures to reduce impacts to a less than significant level.	(A) An identification of the reasonably foreseeable methods of compliance with the project; (B) An analysis of any reasonably foreseeable significant adverse environmental impacts associated with those methods of compliance; (C) An analysis of reasonably foreseeable alternative methods of compliance that would have less significant adverse environmental impacts; and (D) An analysis of reasonably foreseeable mitigation measures that would minimize any unavoidable significant adverse environmental impacts of the reasonably foreseeable methods of compliance." (Cal. Code Regs., tit. 23, § 3777(b).) Further, as to the elements (A)-(D) of section 3777(b)(4), the regulation recognizes that a State or regional water board "shall not be required to conduct a site-specific project level analysis of the methods of compliance, which CEQA may otherwise require of those agencies who are responsible for complying with the plan or policy when they determine the manner in which they will comply." (Cal. Code Regs., tit. 23, § 3777, subd. (c); see also *Conway v. State Water Res. Control Bd., supra,* 235 Cal.App.4th at 680-681.)

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		The SED also concludes in part, *"The cumulative impact of this reasonably foreseeable method of compliance [use of alternative anti-fouling paints] is not expected to be considerable when viewed in light of ongoing violations of the Cu CTR water quality criteria specified, in part, to address and prevent adverse effects on the biota."* (SED 2022, p. 81.) The potential regulatory mechanisms available to the Santa Ana Water Board (i.e., individual or general waste discharge requirements (WDRs), conditional waiver of WDRs, waste discharge prohibition, cleanup and abatement orders) are described in the SED 2022 Staff Report. (SED Appendix A, Section 5.6.1.3.1, pp. 89-92.) The Santa Ana Water Board has authority under the California Water Code to prescribe waste discharge requirements to persons/entities 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, § 13263, subd. (a).) An additional available regulatory tool includes waivers of waste discharge requirements. While the commenter is correct that the Santa Ana Water Board proposes, as a potential regulatory tool, issuance of waste discharge requirements to individual boat owners, the SED 2022 notes that

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		is not the board's preferred option for implementing the TMDLs. The Santa Ana Water Board's Staff Report's recommended regulatory strategy is to adopt a conditional waiver of waste discharge requirements to ensure compliance with the TMDL wasteload allocations for boats. Such a regulatory action would require further evaluation under CEQA. (See SED 2022 Appendix A, Staff Report, p. 91.) The City of Newport Beach, as well as the County of Orange, marina owners/operators, hull cleaners, and individual boat owners, discharge waste into Newport Bay that impairs 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 has not been filed as to a discharge or proposed discharge. (See Wat. Code, §§ 13260, 13263, subd. (d).) The Regional Board may also, under appropriate circumstances, waive provisions in Water Code sections 13260, subdivisions (a) and (c), 13263, subdivision (a), and/or 13264, subdivision (a), 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.)

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		In this context, waste discharge requirements to require reductions in copper discharges will not constitute a mitigation measure but a regulatory approach to require dischargers to implement their proposed strategies to achieve required reductions of copper to correct the copper impairment in Newport Bay. It is likely that the Santa Ana Water Board will consider evaluating progress made during the first four years after the Copper TMDLs are in effect, and if sufficient progress towards meeting the required 20% reduction in copper discharges or the CTR criteria has occurred, the board would not necessarily resort to regulatory tools and their associated fees, reporting requirements, or potential enforcement of such regulatory options. (See also SED 2022, Appendix B-4, response to Comment 1.1.1, pp. 60-61.)
MN-14	[R]efusal to take responsibility for mitigation measures results in improper segmentation of the project by refusing to discuss the foreseeable environmental impacts associated with implementation of the Copper TMDL.	The SED 2022 appropriately 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 SED was developed as part of a Tier One environmental review to support development of the TMDLs. Specific implementation measures will be subject to Tier

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		2, project-specific review when dischargers propose to implement them. That eventual implementation measures may require project-specific evaluation under CEQA does not result in improper segmentation of the programmatic-level project the SED evaluated. (See *Conway v. State Water Res. Control Bd., supra,* 235 Cal.App.4th at 680-681.) (See also response to Comment MN-18.)
MN-15	[T]he SED superficially notes that eliminating the use of Cu and other biocide AFPs will result in increased biofouling (i.e. the spread of invasive species). The SED assumes, without evidence, that other potential techniques will work in combination with non-biocide AFPs to eliminate the spread of invasive species. However, the SED contains no analysis of the feasibility of these proposals, how effective these techniques or non-biocide AFPS will be, nor the resulting environmental impact of the spread of invasive species if these techniques are implemented. The SED also refuses to even propose any mitigation measures for these impacts, evaluate the effectiveness of mitigation measures, or evaluate the resulting significance of environmental impacts if mitigation is implemented.	(See response to Comments MN-13 and MN-14.)

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MN-16	The SED also violates CEQA by failing to consider the potential cumulative impacts of the implementation measures on nearby water bodies, including Los Angeles and San Diego, and the potential for invasive species to be distributed between water bodies. The SED does find significant and unavoidable cumulative impacts to biological resources, but does so because of potential impacts from spill or disposal of wastes and construction activities, not because of the potential for invasive species to be transported between the water bodies. It is reasonably foreseeable that boats from Newport Bay, using less effective AFPs, have a significant potential to spread invasive species to harbors in Los Angeles and San Diego, yet the SED does not analyze these potential cumulative impacts.	The Santa Ana Water Board sufficiently evaluated potential cumulative impacts associated with invasive species. The commenter's assertion that boats from Newport Bay would be using "less effective AFPs" is not substantiated. Additionally, the SED also suggests that one mitigation measure for preventing the introduction of invasive species from boats with non-biocide paints is to have their hulls cleaned prior to leaving their last port and mooring, docking, or berthing in Newport Bay. Likewise, boats using non-biocide alternative antifouling paints that travel from Newport Bay to other ports or harbors, could be required by the local port/ harbor authority to have their hulls cleaned prior to allowing the boat to moor, dock, or berth in their waters. In addition, since the adoption of the SED 2022, several paint manufacturers have developed non-biocide silicone-based antifouling paints that have been found to be superior to biocide-based paints such as copper antifouling paints at reducing biofouling (Lagerström et al. 2022). (See also responses to Comments MN-13 and MN-14 and SED 2022, Appendix B-4, response to Comment L6, p. 50.)
MN-17	The Regional Board purported to override the significant and unavoidable impacts of adoption of the Copper TMDL. However, as	A SED is a Tier 1 or programmatic level CEQA analysis, not a project-specific CEQA analysis. The Santa Ana Water Board appropriately

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	set forth herein and in the City's other submissions on the Copper TMDL, the Regional Board did not adequately disclose or analyze the full scope of the environmental impacts of the Copper TMDL and, therefore, could not have properly adopted a Statement of Overriding Considerations when the Regional Board did not know, exactly, what it was overriding. Likewise, any reliance by the State Board on the Regional Board's Statement of Overriding Considerations would be error and a violation of CEQA.	adopted a statement of overriding considerations for the identified potential unavoidable environmental impacts that *may occur* from implementation of the Copper TMDLs. However, the Santa Ana Water Board also concluded that many of the potential impacts could not be quantified or could be mitigated and were outweighed by the ongoing persistent violations of the CTR water quality criteria for copper in Newport Bay. At elevated concentrations, copper is toxic to aquatic organisms, including plants and animals that form the base of the food chain for other organisms, such as birds. The biological beneficial uses of Newport Bay are not maintained or protected as the result of dissolved copper impairment. Due to this continued impairment, federal law and regulation requires the development and implementation of Copper TMDLs. The adoption of the Statement of Overriding Considerations is appropriately supported.
MN-18	The Regional Board's actions constitute an abuse of discretion in that the environmental analysis is not supported by substantial evidence in light of the whole record. Any approval by the State Board based on the fundamentally flawed SED would likewise constitute an abuse of discretion. The State Board should not perpetuate the Regional Board's mistakes. Instead, the State Board must send the	The SED 2022 satisfies the requirements set forth in the applicable certified regulatory program regulations. The SED 2022 is a tiered environmental document. The Santa Ana Water Board generally found that there could be potentially significant environmental effects from the use of non-biocide and/or alternative antifouling paints. A detailed analysis of specific paints is not required under the first-tier environmental analysis in the SED. Section 3777,

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	Copper TMDL and the SED back to the Regional Board for further analysis and consideration of the full scope of the environmental impacts caused by the Copper TMDL.	subdivision (c) of Title 23 of the California Code of Regulations specifies that the Water Boards "shall not be required to conduct a site-specific project level analysis of the methods of compliance, which CEQA may otherwise require of those agencies who are responsible for complying with the plan or policy when they determine the manner in which they will comply." (See also *Conway v. State Water Resources Control Bd.* (2015) 235 Cal.App.4th 671, 680 [only first-tier environmental analysis necessary for TMDL].) The SED appropriately noted that the dischargers would need to conduct a future site-specific, project-level analysis under CEQA of any compliance method that they chose to use, including of any selected non-biocide and/or alternative antifouling paints. (See responses to Comments MN-7 through MN-9, above.)
MN-19	The Copper TMDL Implementation Plan raises both express and conflict preemption issues because (a) the Regional Board is proposing waste discharge requirements ("WDRs"), which serve as permits that are expressly preempted; and (b) the Regional Board is proposing best management practices ("BMPs") and other strategies that conflict with federal law.	The commenter appears to be referring to the 2008 Clean Boating Act (33 U.S.C. § 1322(o)). U.S. EPA has not published the proposed rule for the Clean Boating Act or provided a list of management practices to implement the Act. While the Clean Boating Act exempts recreational vessels from the need to obtain an NPDES permit, it does not preempt a state's regulation, under state law, of discharges from recreational boats, including discharges of copper from copper-based antifouling paints.

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		State and local government may impose equally or more stringent requirements or requirements that are broader in scope than measures set forth in federal regulations to implement the Clean Boating Act. (33 U.S.C. § 1322(o).) Therefore, the Santa Ana Water Board is not precluded from issuing waste discharge requirements or waivers that require the implementation of BMPs to reduce copper loads from recreational vessels in Newport Bay. (See also response to Comment MN-1.)
MN-20	CWA section 402(r), 33 U.S.C. § 1342(r), does not allow any permitting agency to issue permits under the CWA to recreational vessels; therefore, this prohibits the Regional Board from issuing WDRs, which are equivalent to NPDES permits, to recreational vessels. Express preemption occurs when a federal statute preempts a state law that speaks to a domain expressly addressed and accounted for in a federal statute. (*Cipollone v. Liggett Group, Inc.* (1992) 505 U.S. 504, 517 [preempting claim related to adequacy of federal cigarette warning based on express preemption].) Express preemption occurs when Congress has 'considered the issue of pre-emption and has included in the enacted legislation a	As discussed in response to Comment MN-1 and MN-19, the Clean Boating Act exempts recreational vessels (as well as small commercial and fishing vessels of any size) from the requirement to obtain a NPDES permit under the Clean Water Act. However, the Clean Boating Act does not preempt the state's ability to regulate discharges of copper under state regulatory authorities such as waste discharge requirements or a conditional waiver of waste discharge requirements pursuant to Water Code section 13260 et seq. The Clean Boating Act contains no express preemption provision and U.S. EPA explicitly interprets the Clean Boating Act to allow states to establish management practices that are broader in scope and/or more stringent than federal management practices established under the

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	provision explicitly addressing that issue.[.]' (*Cipollone, supra,* 505 U.S. at 517.) Here, both Congress and U.S. EPA have considered issues of preemption and explicitly addressed that states have no authority to issue permits for recreational vessels, which are vessels 'manufactured or used primarily for pleasure' or 'leased, rented, or chartered to a person for the pleasure of that person,' excluding vessels subject to U.S. Coastguard inspection that carry paying passengers or are engaged in commercial use. (33 U.S.C. § 1352(25).) CWA section 402(r), 33 U.S.C. § 1342(r), provides: 'No permit shall be required under this chapter by the Administrator (or a State, in the case of a permit program approved under subsection (b)) for the discharge of any graywater, bilge water, cooling water, . . ., or any other discharge that is incidental to the normal operation of a vessel, if the discharge is from a recreational vessel.' U.S. EPA has determined that discharges incidental to the normal operation of a vessel include copper from CuAFPs. (85 Fed. Reg. 67818, 67824 (Oct. 26, 2020.)	Clean Boating Act. ("While the CBA will establish a nationally applicable set of management practices, state and local governments may establish practices that are broader in scope and/or more stringent than those established under the CBA. Vessel owners must comply with the most stringent laws." (About the Clean Boating Act (CBA) | US EPA, accessed January 11, 2024.) The commenter is correct that as a general matter, NPDES permits also serve as waste discharge requirements under the Water Code. Chapter 5.5 of the Porter-Cologne Water Quality Control Act (Porter-Cologne) establishes a permitting program to implement the NPDES program in California. (Wat. Code § 13370 et seq.) While Water Code section 13374 defines "waste discharge requirements" as an equivalent term for "permits," as that term is used in the NPDES program, the State has authority independent of the NPDES permitting program to issue waste discharge requirements (which may also be referred to as orders or permits) for discharges to waters of the state (including waters of the United States) pursuant to Porter-Cologne Chapter 4, Article 4. (See Wat. Code, § 13260 et seq.). The Clean Water Act does not preempt the Santa Ana Water Board's authority to regulate

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	The plain language of the statute explicitly exempts owners of recreational vessels from the requirement to be subject to a National Pollutant Discharge Elimination System ('NPDES') permit or state permit approved under the Clean Water Act. Despite this prohibition, the October 25, 2022 Staff Report for the Copper TMDL states on pages 90 and 91 that the Regional Board is considering issuing WDRs, which are equivalent to NPDES permits to recreational vessels. (See Wat. Code, § 13374.) Because CWA section 402(r), 33 U.S.C. § 1342(r), prohibits EPA and states with certified CWA programs from requiring permits for recreational vessels, the Regional Board's plans to issue WDRs to recreational vessels are expressly preempted under CWA section 402(r).	discharges of copper through issuance of waste discharge requirements, general waste discharge requirements or conditional waivers of waste discharge requirements for recreational vessels and other vessels subject to the Clean Boating Act even though these discharges are exempt from the requirement to obtain an NPDES permit. Nor does it preempt imposition of requirements that may be more stringent than specified in eventual Clean Boating Act regulations. (See response to Comment MN-1 for discussion of the scope of the Clean Boating Act.)
MN-21	CWA section 312(o), 33 U.S.C. § 1322(o), establishes that U.S. EPA would develop management standards for the permit-exempt recreational vessels; however, the Regional Board has developed its own management standards for recreational vessels that attempt to substitute the Regional Board's judgment for U.S. EPA's. The Clean Boating Act preempts the Regional Board from applying different terms from federal law, but allows stricter	It is inaccurate to state that the Santa Ana Water Board "has developed its own management standards for recreational vessels." The Copper TMDLs identify recommended strategies for consideration by responsible parties/dischargers in developing implementation proposals. Adoption of the TMDLs is not preempted by the Clean Boating Act. Moreover, the circumstances here do not support a finding of express or conflict preemption in

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	standards under 33 U.S.C. section 1370, which provides in relevant part: 'Except as expressly provided in this chapter, nothing in this chapter shall (1) preclude or deny the right of any State . . . to adopt or enforce (A) any standard or limitation respecting the discharge of pollutants, or (B) any requirement respecting control or abatement of pollution, except that if an effluent limitation, or other limitation, effluent standard, . . . is in effect under this chapter, such State . . . may not adopt or enforce any effluent limitation or other limitation, effluent standard, . . . which is less stringent than the effluent limitation, or other limitation, effluent standard, . . . under this chapter. . .'The savings clause under 33 U.S.C. section 1370 does not eliminate conflict preemption principles, according to the U.S. Supreme Court which has held that 'a saving clause . . . does *not* bar the ordinary working of conflict pre-emption principles.' Conflict preemption occurs under the Clean Water Act where the state law 'frustrate[s] the carefully prescribed CWA regulatory system.' Conflict preemption also occurs where state law becomes an obstacle to the execution of the purpose of the federal law or where it is	eventual issuance of waste discharge requirements or other non-NPDES regulatory actions to implement the Copper TMDLs. There is no indication that incorporating or encouraging more stringent management practices or measures for vessels subject to the Clean Boating Act in a future permit or other regulatory action is preempted by the Clean Boating Act. Further, it is unclear when U.S. EPA will adopt regulations implementing the 2008 Clean Boating Act. (See also response to Comments MN-1 and MN-19-MN-20.) As stated above, there is no indication that implementation of the Copper TMDLs would become an obstacle to the execution of the Clean Boating Act or make it impossible for dischargers to comply with both federal and state law in this regard.

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	impossible to comply with both state and federal requirements.[fn] Also, no state is permitted to use its police power to enact a regulation '"where failure of . . . federal officials affirmatively to exercise their full authority takes on the character of a ruling that no such regulation is appropriate or approved pursuant to the policy of the statute[.]"'[fn]	
MN-22	In recognition of the federal role in recreational boat standards, page 87 of the Copper TMDL Staff Report explains that there are three phases to implementation of U.S. EPA regulations for recreational boats and that these boats will be required to comply with both U.S. EPA and with U.S. Coast Guard regulations. To date, however, U.S. EPA has not set a time schedule for the CBA regulations for recreational boats. (Copper TMDL Staff Report at 87.) The October 25, 2022 Staff Report for the Copper TMDL states on page 91 that the Regional Board is considering a conditional waiver of WDRs if recreational vessels carry out BMPs and other Regional Board strategies; however, the Clean Boating Act, 33 U.S.C. § 1322(o)(2)(A)(iii) imposes the responsibility of setting such standards upon U.S. EPA. After EPA promulgates management standards, all recreational vessels must	(See response to Comments MN-1 and MN-19-MN-21.)

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	meet standards in order to operate in waters of the United States. (33 U.S.C.A. § 1322(o)(6).)	
MN-23	In promulgating the Copper TMDL, the Regional Board, as a solitary local authority, is attempting to regulate within a complex federal and state framework that controls discharges of pollutants from marine vessels, including laws and regulations that target invasive aquatic species that Copper AFPs are designed to prevent. It would frustrate the U.S. EPA and U.S. Coast Guard regulatory system for the Regional Board to promulgate standards for CuAFPs that differ from the standards of the carefully prescribed water quality and vessel laws. Further, U.S. EPA has affirmatively not exercised its full authority to establish management standards for recreational boats because, according to the Regional Board, EPA is "focused on implementation" of the VIDA primarily addressing commercial vessels. (Copper TMDL Staff Report at p. 87.) EPA's focus on VIDA first and CBA recreational standards second does not allow the Regional Board to step in and establish standards reserved for federal determination.	VIDA does not apply to recreational vessels and the 2008 Clean Boating Act does not preclude more stringent state regulation of recreational vessels, small commercial and fishing vessels. (See responses to Comment MN-1, and MN-19-MN-21 regarding the Clean Boating Act.) Neither adoption of the Copper TMDLs nor their eventual implementation "establish standards reserved for federal determination," as the commenter states. The Copper TMDLs do not establish an obstacle to U.S. EPA's eventual implementation of the Clean Boating Act standards. Rather than a solitary local authority, the Santa Ana Water Board is state agency legally obligated to adopt a TMDL to address the impairments in Newport Bay caused by discharges of copper, including from hull paints on boats within the Bay. (See also Response to Comments MN-1 and MN-19 through MN-21.)
MN-24	The Regional Board has explained "USEPA has not found it necessary to await final	(See Response to Comment MN-1, above.) The VIDA only applies to non-military and non-

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	VIDA requirements and has indicated the Agency's support for Santa Ana Water Board adoption of these propose Cu TMDLs, with minor recommendations. . ." (SED, App. B-4, RTC at p. 28.) To the City's knowledge, neither EPA's August 26, 2021 letter in support for the Copper TMDL nor EPA's November 2022 e-mail supporting the Copper TMDL expressly address whether it is appropriate to wait for the final VIDA requirements. It seems that at some point during TMDL development, U.S. EPA was not sufficiently aware of the issues the City raised partly stemming from the October 26, 2020 Federal Register on VIDA regulations. Specifically, an EPA e-mail message to Terri Reeder of the Water Board from Diana E. Fleck dated December 6, 2021 provides the link to the October 26, 2020 Federal Register cited above, but notes "I am not familiar with this proposal, but the link to the citation is above." The record the City has obtained from the Regional Board reflects that the role of the Copper TMDL in the existing framework of water quality and vessel laws has not been sufficiently evaluated and that the City's concerns, including under CEQA, persist.	recreational vessels (commercial) greater than or equal to 79 feet in length. It does not apply to recreational boats or commercial boats less than 79 feet in length. (Note: There are only approximately 15 vessels greater than 79 feet in length (average length of 111 feet) that spend greater than 30 days per year in Newport Bay or use Newport Bay as their home port. (See SED Appendix A, Staff Report, pages 76 and 90).) Until regulations implementing the VIDA are in effect, large commercial boats (79 feet in length or greater) continue to be subject to the federal Vessel General Permit (VGP) and the State Water Board's section 401 water quality certification. Once effective, the state's ability to regulate copper discharges from large commercial boats will be restricted. This eventuality does not undermine the need and evidentiary support for the Copper TMDLs. Additionally, the Copper TMDLs will replace U.S. EPA's 2002 Technical TMDLs for copper, which states that "passive leaching from recreational boats and underwater hull cleaning are estimated to comprise the most significant sources (>80%) for dissolved Cu...[*emphasis added*]." Regardless of U.S. EPA staff's knowledge of VIDA at the time of the quoted email, U.S. EPA continues to support the adoption and implementation of the Copper TMDLs. A June 14, 2023 email from

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		Diane Fleck to Terri Reeder regarding whether any changes had been made to the Copper TMDLs as part of the State Water Board approval process includes the following statement: "I'm glad to see it's [Copper TMDLs] moving forward." (See also Responses to Comments MN-1 and MN-19-MN-21, above.)
MN-25	On the federal level, discharges related to CuAFPs are in the process of being addressed by federal regulations, including standards for biofouling, as well as in-water cleaning and capture ('IWCC') systems for vessels subject to VIDA (85 Fed. Reg. 67818, 67830, 67869 (Oct. 26, 2020).) The new proposed regulations set forth detailed IWCC system requirements and will mandate that all antifouling coatings be applied, maintained, and removed consistent with the Federal Insecticide, Fungicide, and Rodenticide Act ('FIFRA') label, as applicable. (*Id.* At p. 67829.) EPA is proposing commercial vessels subject to VIDA [fn] ensure that vessel '[h]ulls and niche areas must be cleaned regularly to minimize biofouling.' (Proposed regulation 40 C.F.R. § 139.22(c); 85 Fed. Reg. 67818, *supra*, at p. 67889.)	(See responses to Comment MN-1, MN-19 through MN-21 and MN-22 through MN-24.)
MN-26	In contrast, page 7 of the Regional Board's proposed Basin Plan amendment desires a 'reduced cleaning frequency' for cleaning of	The Copper TMDLs do not themselves impose management standards. The reduced cleaning frequency is a recommendation in the Copper

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	boat hulls on recreational *and commercial vessels.* This means that the Regional Board is imposing different standards for certain commercial vessels than those standards EPA proposes for commercial vessels subject to VIDA. There also appears to be some level of disagreement regarding the BMPs in the Copper TMDL. It is the City's understanding that CDPR had proposed to U.S. EPA that the CuAFP product labels be revised to incorporate certain BMPs for in-water hull cleaning, but U.S. EPA was not receptive to those label changes, indicating actual or potential conflict with federal standards. The attempts in the Copper TMDL frustrate the federal law, and the board is without authority to promulgate terms that differ from the CBA management standards Congress required. The Regional Board may have authority to issue more stringent regulations, but no different and/or inconsistent standards.	TMDLs and applies only to recreational vessels and commercial vessels less than 79 feet in length that are not regulated by VIDA. This recommended BMP is also included as a mitigation recommendation in CDPR's 2018 lower leach rate copper-based antifouling paint rule. However, the 2022 Staff Report (Section 5.6.1.1, page 86) clearly states that while Santa Ana Water Board staff generally agree with CDPR's recommended mitigation measures, "DPR's recommendation of reduced cleaning frequency, however, may not be practical to implement. Cleaning frequency is a matter of boater preference, and the needs dictated by hull fouling conditions, which vary widely in waters where boats are moored, the length of time that boats are in the water, and boat usage." The Copper TMDLs do not include CDPR's mitigation recommendation regarding revision of U.S. EPA's product labels for in-water hull cleaning as this is beyond the Water Board's jurisdiction. (See also Responses to Comments OCPW-3, OCPW-7(b), OCPW-8(a), MN-1, MN-19 and MN-24.)
MN-27	It is not a secret that if the Regional Board was the sole authority for the Copper TMDL, the agency would ban CuAFPs, according to e-mail exchanges between the	The Santa Ana Water Board responded to similar comments when it adopted the Copper TMDLs. This response summarizes and elaborates on the prior comment. The commenter is correct in that

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	Regional Board and the CDPR. Aniela Burant of CDPR provided comments to Linda Candaleria in an August 31, 2021 e-mail striking out language Ms. Candaleria desired to include in an earlier version of the Copper TMDL staff report, language specifically banning CuAFPs… Even though the express language for a regional ban of CuAFPs was removed from the text of the current October 25, 2022 Copper TMDL staff report, the intent of the Regional Board remains the same, which is to prohibit use of CuAFPs, something only CDPR can do.	Santa Ana Water Board staff requested that CDPR consider a ban on copper-based antifouling paints in the Santa Ana region or within Southern California in 2014. CDPR advised Staff that the agency was not inclined to issue a regional ban on copper antifouling paints as it would likely not be effective due to the transient nature of boats moving in and out of the bay, both from other parts of the state/country, and internationally. The Santa Ana Water Board recognized CDPR's determination (and their authority to make that determination) and understands CDPR does not intend to pursue a ban on copper antifouling paints at this time. Neither the 2022 Staff Report nor the Copper TMDLs include a "ban" on copper antifouling paints. Therefore, the commenter's speculation about the Santa Ana Water Board's intent is not relevant to the adopted Copper TMDLs and is not supported by the record.
MN-28	Food & Agricultural Code section 11501.1 provides, in part: "This division and Division 7 . . . are of statewide concern and occupy the whole field of regulation regarding the registration, sale, transportation, or use of pesticides to the exclusion of all local regulation. . . no ordinance or regulation of local government . . . may prohibit or in any way attempt to regulate any matter relating to . . . use of pesticides." (Emphasis added.)	Comment noted.

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MN-29	Use of pesticides was addressed in detail in the original February 1997 California Pesticide Management Plan for Water Quality ("1997 Plan") and the March 1997 Management Agency Agreement ("MAA") between CDPR, the State Board, and the County Agricultural Commissioners ("Commissioners"), which is an appendix to the 1997 Plan… Recital paragraph 2 of the 2019 MAA provides that CDPR is the lead agency for pesticide regulation and that, among other things, CDPR must "[e]ncourage the development and implementation of pest management systems, stressing application of biological and cultural pest control techniques with selective pesticides, when necessary, to achieve acceptable levels of control with *the least possible harm to nontarget organisms and the environment*." (Emphasis added.) The 2019 MAA charges CDPR with response "to water quality concerns that pose a significant adverse effects [sic] to aquatic organisms through DPR's regulatory authority." [Fn. omitted.] Thus, the CDPR and the State Board determined that pollution from the use of pesticides falls under CDPR's responsibility and that reduction would be achieved by DPR's regulatory authority.	The Santa Ana Water Board responded to similar comments when it adopted the Copper TMDLs. This response summarizes that previous response. While Food and Agricultural Code section 11501.1, quoted incompletely in Comment MN-28, limits local government regulation of pesticides including their registration, sale, and transport, it does not limit 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 Santa Ana Water Board retains its authority and responsibility to address *waste discharges* of copper that result from the use of copper-based antifouling paints, but not the use of the pesticides themselves. (See, e.g., Water Code, §§ 13262, 13304; Food & Ag. Code, § 11501.1, subds. (a), (c).) The comment includes quotations from the 2019 Management Agency Agreement (MAA) between CDPR and the Water Boards, but the conclusion is misleading. The 2019 MAA and associated 2019 Implementation Plan supersede prior versions of the MAA (including the updated 1997 MAA referenced in the comment). (See 2019 MAA, Whereas clause 1.(a).) The 2019 MAA recognizes the agencies' complementary authorities and also identifies

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		among its purposes to "[i]dentify how the agencies will work together to evaluate water quality, identify existing water quality problems, identify threats to water quality related to pesticides, and develop mitigation strategies to address problems[,] . . . and to "[c]oordinate respective authorities to solve water quality problems related to pesticide use by promoting the development of practices that reduce or eliminate impacts on water quality or prevent pesticide use that may impact water quality." (See 2019 Management Agency Agreement, Whereas clauses (d) and (g).) Further, the 2019 Adopted Management Agency Agreement and Implementation Plan explicitly acknowledge the Water Boards' water quality protection authorities with regard to pesticides in surface waters such as Newport Bay as follows: "The Water Boards have the regulatory authority to issue waste discharge requirements and conditional waivers of waste discharge requirements, take enforcement action, issue notice to comply, and develop total maximum daily loads (TMDLs) and other Basin Plan regulatory requirements for dischargers." (2019 Adopted Management Agency Agreement Implementation Plan, p. 16.) The Management Agency Agreement memorializes the Water Boards' commitment "[t]o require and support the use of best

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		management practices relating to pesticides to reduce pesticide discharges, work to ensure attainment of water quality standards, and prevent unauthorized degradation of water quality through implementation and enforcement of water quality laws, regulations, policies, plans and programs." (2019 Management Agency Agreement, section 2.(e), p. 5.) Both CDPR and the Water Boards mutually agree "[t]o implement the activities outlined in the Implementation for this MAA, which describes a cooperative effort for protecting surface and ground water quality; and to amend the implementation plan as necessary to ensure the development and use of preventive activities and practices, and responsive efforts to protect water quality of the State from the potential adverse effects of pesticides." (*Id.,* section 3.(e), p. 6.) CDPR also recognized the Water Boards' authorities to protect water quality and address impairments. (See November 16, 2017 letter to H. Smythe, Santa Ana Water Board Executive Officer from G. Farnsworth, CDPR Assistant Director re CDPR's regulation of copper-based antifouling paints and the Santa Ana Water Board's ability to set a TMDL for copper.) The 2019 Management Agency Agreement and Implementation Plan do not diminish the

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		Water Boards' existing legal authorities to address water quality impairments caused by discharges of pesticides. Additionally, Food and Agriculture Code section 11501.1, subdivision (c), makes clear that section 11501.1 does not diminish the Water Boards' authorities: "Neither this division nor Division 7 (commencing with Section 12501) is a limitation on the authority of a state agency or department to enforce or administer any law that the agency or department is authorized or required to enforce or administer."
MN-30	Effective on July, 2018, subsection (c)(1) of 6190 in Title 3 regulations placed a release rate cap of 9.5 micrograms per day ("µg/cm^2/day") for CuAFPs used on recreational vessels. In a December 10, 2021 [sic], CDPR provided the Regional Board with a list of low-leach CuAFPs. The list shows products with "a leach (release) rate above 9.50 µg/cm^2/day bear label use restrictions that prohibit use on recreational vessels or limit use only to commercial vessels." Thus, CDPR has banned the use of products with a leach rate above 9/5 µg/cm^2/day. The release rate cap rate of 9.5 µg/cm^2/day in CuAFP regulation was developed taking in-water hull cleaning ("IWHC") into consideration. The regulation assumed	Comment noted.

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	IWHC activities would be performed with BMP cleaning methods (for example, using soft pile carpet) no more frequently than once a month. (June 15, 2021 CDPR Letter to San Diego Board of Commissioners related to Shelter Island Pause in IWHC.) CDPR also believed that BMP cleaning tactics would have a significant effect on dissolved copper based upon modeling by CDPR that predicted "continuous compliance with the chronic California Toxics Rule criterion (3.1 µg/L) for marinas with ≤1270 vessels and reductions in DCu concentrations in all marinas." (Ibid.) CDPR had determined that if "non-BMP cleaning tactics were used, the modeling scenario showed that the leach rate would need to be lower, set at 5.98 µg/cm^2/day" to comply with the California Toxics Rule ("CTR") continuously. (*Ibid.*)	
MN-31	From 2017 to 2021, the CDPR believed the hull cleaning might affect dissolved copper levels in surface waters, but that many factors should be considered. In a November 16, 2017 response to a November 8, 2017 letter from the Regional Board, the CDPR recommended reduced in-hull water cleaning, but explained in its response that success of this and other measures would depend on many factors, including the size of the marina. In 2019,	Comment noted. (See Response to Comment OCPW-4 above, addressing the circumstances of the in-water hull cleaning pause study.)

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	the CDPR further explained in Study 319 that toxicity from dissolved copper depends on additional factors, including temperature, pH, dissolved organic carbon, and salinity. In 2021, CDPR supported a pause in in-water hull cleaning, as explained in June 15, 2021 letter from CDPR to the Port of San Diego Board of Commissioners because the agency expected a potential reduction in passive leaching. The pause would provide information on how dissolved copper levels would respond to a temporary pause in IWHC.	
MN-32	In fact, the pause in IWHC had little reduction in dissolved copper, according to a September 16, 2022 IWHC Pause Water Quality Technical Report prepared for the Port of San Diego. The report's executive summary explains: '[I]t was theorized that a complete pause in hull cleaning in [Shelter Island Yacht Basin] SIYB for longer than the 30-day period expected for copper release rates to return to a 'pseudo steady state' would result in an observable decrease in dissolved copper levels in the basin, as the load contribution from hull cleaning was reduced to zero. It was further theorized that if the hull cleaning load was substantially greater	(See response to Comment OCPW-4.)

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	than the modeled 5% from the SIYB TMDL, then a corresponding decrease in dissolved copper may shift the basin-wide water quality substantially closer to the 3.1 micrograms per liter (µg/L) water quality standard. . . While where was an observed decrease in basin-wide dissolved copper levels during the Pause and Post-Pause periods, it should be noted that the basin-wide average measured during the final week of the Monitoring Program (7.2 µg/L in Week 16) was similar to that measured during Week 1 (6.5 µg/L). Changes to the basin-wide dissolved copper concentrations are minimal when compared with the passive leaching of copper-based AFPs, which is the predominant sort of copper loading to the basin. The report concluded that using BMPs during IWHC to mitigate dissolved copper was not sufficient to achieve the water quality standard evaluated, namely 3.1 micrograms per liter.	
MN-33	In 2017, CDPR determined at that time that the Regional Board was "not dictating a total ban on the use of copper or	The Santa Ana Water Board responded to similar comments prior to adopting the Copper TMDLs, that "…even though the Regional Board says it is

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	prescribing the specific method of manner of compliance with the TMDL," according to CDPR's November 16, 2017 letter to the Regional Board. But even though the Regional Board says it is not banning CuAFPs, the agency's proposed actions have the direct effect of banning CuAFPs because nothing else will achieve the results the Regional Board seeks. The Regional Board has concluded that using mitigation measures alone is not expected to be "sufficient to meet the water quality objectives." (SED App. A at p. 86) This means that the only viable compliance method in the TMDL Implementation Plan will be to stop using the existing CuAFPs and instead use "nonbiocide AFPs/coatings." (*Id*. at p. 90.) This effectively will ban the use of CuAFPs in favor of non- biocide AFPs until the 3.1 µg/L standard is achieved. The only question is how much of a ban will the Copper TMDL cause. The Regional Board's analysis would not require *all* boats to convert to non-CuAFPs, because the Copper TMDL seeks a 60% decrease in copper discharges. Thus, the Copper TMDL theoretically might not require a total ban if there was a way to have a partial ban that would succeed. But, no matter if it is a partial or total ban, the Copper TMDL bans	not banning CuAFPs, the agency's proposed actions have the direct effect of banning CuAFPs because nothing else will achieve the results the Regional Board seeks." The Copper TMDLs do not require a ban on copper antifouling paints or the conversion of boats to non-biocide paints, which the commenter acknowledges. The Copper TMDLs seeks a 60% decrease in copper discharges over the course of a 12-year implementation period to begin once U.S. EPA approves the TMDLs. The Santa Ana Water Board expects the required reduction to be achievable through discharger implementation of a variety of compliance options such as use of BMPs (e.g., soft cloths for hull cleaning, use of dry docks or boat lifts) and boat paints that prevent fouling organisms to attach to boat hulls (e.g., hard epoxy or silicone paints). The conversion of boats to non-biocide paints is included as a recommended mitigation option that dischargers are encouraged to consider as part of their own implementation plans. The SED 2022, Appendix A (the 2022 technical Staff Report) refers to many of the same mitigation measures (such as including the use of BMPs during hull cleaning) as those recommended by CDPR. Santa Ana Water Board staff also recommended additional potential BMPs such as dry docking of boats; use of slip liners, boat lifts

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	CuAFPs when it requires even a single boater to switch to another product instead of using a legally registered pesticide.	or boat floats; or cleaning of boats using the container filtration method. The quote from page 86 of the 2022 Staff Report (Appendix A to the SED 2022) is referring to a joint comment letter from the Santa Ana and Los Angeles Water Boards to CDPR dated August 15, 2014. CDPR's final lower leach rate rule for copper-based antifouling paints also acknowledges that while CDPR "expects to also observe a significant reduction in dissolved copper concentrations in the larger marinas [as a result of the proposed lower leach rate for copper in antifouling paints]…dissolved copper concentrations in these marinas may still at times exceed the CTR criterion…" (CDPR memorandum from D. Duncan to B. Leahy dated January 30, 2014.) (See also response to Comment MN-27.)
MN-34	[T]he Regional Board has said that the Water Board does not "require or anticipate the City will take actions that contravene Food and Agriculture Code section 11501.1." (SED, App. B-4, Response No. L1.1.b, p. 34.) Food & Agriculture Code section 11501.1, however, prohibits the City from any ordinance or regulation that "in any way attempt[s] to regulate any matter relating to . . . use of a pesticide." Certain aspects of the Copper TMDL	The Copper TMDLs address discharges of copper from paints on boat hulls 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 Food and Agricultural Code section 11501.1, subdivision (a). If approved, the Copper TMDLs would require the City and other dischargers to develop and implement a plan(s) to achieve reductions in the discharge of copper from copper antifouling

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	Implementation Plan require the City to take action to influence the "use," as defined above, of AFPs. Specifically, in July 16, 2021 responses to the 2019 Workshop (SED, App. B-3), the Regional Board specifically explained that the Regional Board wants the City to consider "AFP ingredients, any data available concerning their potential environmental effects, and possible mitigation measures." (SED, App. B-3 at p. 16.) The TMDL implementation Plan proposes that the City develop "recommended management measures" for CuAFPs and BMPs, including the use of BMPs for hull cleaning. The 1997 Pesticide Plan, however, specifies that these actions are exclusively within the jurisdiction of CDPR as reduction strategies. (1997 Plan at pp. 2-3, 14-16.)	paints. The Santa Ana Water Board acknowledges that some boat conversions from copper to alternative antifouling paints ultimately may be necessary, in conjunction with the use of lower leach rate copper paints and management practices, to achieve the copper CTR criteria. However, education and providing incentives to encourage some boaters to voluntarily convert to non-copper hull paint does not equate to an attempt to regulate the use of copper (pesticide) based paints. The 1997 MAA does not support the commenter's position that management measures to reduce discharges of copper are "exclusively within the jurisdiction of CDPR as reduction strategies." Regardless, the 2019 Adopted MAA and Implementation Plan signed by both the CDPR and the Water Boards supersedes the 1997 MAA and likewise does not support the commenter's conclusion. (See response to Comment MN-29, above.) Additionally, Food and Agriculture Code section 11501.1 does not preclude a local agency's development of recommended management measures to reduce copper discharges to Newport Bay. In 2010, the City of Newport Beach adopted Resolution 2010-0053, which encouraged all boat owners in Newport Harbor to "…protect the Harbor by

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		taking advantage of the available educational and outreach opportunities to identify and voluntarily change to non-toxic, copper-free anti-fouling vessel bottom paints," and the City's posting of "Harbor Rules and Regulations" for Newport Bay, which identifies environmental regulations applicable to boat cleaning, including: "Do not use paints with cooper [sic] or toxic biocides," "Limit all in-water maintenance to no-discharge activities," and "Hire maintenance companies who follow these procedures so you are not fined." (Harbor Rules and Regulations | City of Newport Beach (newportbeachca.gov); accessed February 20, 2024.) The City has not indicated that CDPR has taken the position, or has notified the City, that the 2010 resolution and/or the posted environmental rules and regulations are preempted by Food and Agriculture Code section 11501.1. In fact, the measures identified in the City's resolution and rules are consistent with the mitigation measures CDPR recommends be implemented in tandem with conversion to CDPR's lower leach rate copper paints (*Department of Pesticide Regulation, Determination of Maximum Allowable Leach Rate and Mitigation Recommendations for Copper Antifouling Paints per AB 425*, January 30, 2014, pp. 3-4.).

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		Similarly, in 2018, Los Angeles County adopted a hull cleaning ordinance concerning Marina Del Rey's copper impaired waters in 2018 (See response to Comment OCPW-2.) CDPR has likewise not indicated that the 2018 ordinance runs afoul of Food and Agriculture Code section 11501.1. Further, in evaluating the scope of preemption under Food and Agriculture Code section 11501.1, a recent Attorney General Opinion considered the 2018 Los Angeles County hull cleaning ordinance as an example of an ordinance *not* preempted by Section 11501.1. The Attorney General (AG) Opinion concluded: "Section 11501.1 also does not foreclose counties from adopting local policies or ordinances, regulations, or other local laws or rules that mitigate the post-use effects of pesticides within the coastal zone, without attempting to regulate the registration, sale, transportation, or use of pesticides themselves. One example is a Los Angeles County ordinance that regulates the way boats are cleaned in the Marina del Rey Harbor. [Fn. omitted.] The purpose of the ordinance is to mitigate the effects of copper antifouling paint, a pesticide applied to boats to discourage the growth of barnacles. The Department of Pesticide Control has sole jurisdiction to regulate the use of copper antifouling paint, and it does so by prohibiting the use of paint that exceeds a specified copper

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		leach rate. [Fn. omitted.] Although Los Angeles County lacks power to ban copper antifouling paint entirely, it retains power to address the local environmental effects of pesticides. Its ordinance addresses the issue by requiring training and certification in methods of cleaning that minimize copper leaching for any person who cleans a boat in the Marina del Rey Harbor." (Cal. AG Opinion No. 21-1001 (Mar. 20, 2024) 2024 WL 1342298, at p. 10.) The AG Opinion confirms that while a local entity cannot adopt an ordinance of general applicability that regulates the use of pesticides, it may issue site-specific rules that have the effect of regulating permits based on site-specific factors, may adopt policies or regulations that address the post-use effects of pesticides and may publish recommendations or advisory policies encouraging best practices regarding pesticide use or alternatives to pesticide use. Additionally, the AG Opinion concludes that "counties may adopt local regulations or ordinances designed to reduce the need for using pesticides . . . . [and] counties are free to create and distribute educational materials providing clear information about alternatives to pesticides." (*Id.,* p. 11.)

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		The AG Opinion concludes "that a county may take a number of actions, such as imposing pesticides restrictions as conditions in individual development permits, or adopting regulations or other rules that aimed at reducing the need for pesticide use or mitigating the local effects of pesticide use, without violating section 11501.1." (*Ibid.*) The AG Opinion reinforces the Santa Ana Water Board's position that the City of Newport Beach and the County of Orange, may, as responsible parties for implementing the Copper TMDLs, undertake education and training efforts aimed at reducing copper discharges to Newport Bay. Moreover, as primary grantees and lessors, the City of Newport Beach and County of Orange could, for example, include requirements to implement management practices designed to reduce discharges of copper in slip leases for boaters leasing City or County marina facilities without contravening section 11501.1. The Copper TMDLs do not require the City or County to enact ordinances that would contravene the restrictions in Food and Agriculture Code section 11501.1.
MN-35	The City is barred by Food and Agricultural Code section 11501.1 from taking action on the "use" of a registered pesticide because that statute states "no ordinance or regulation of local government . . . may	(See Response to Comment MN-34.) Additionally, the remedy for a local agency's violation of Food and Agriculture Code section 11501.1 is notification by CDPR that the local

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	prohibit or in any way attempt to regulate any matter relating to. . . use of pesticides." Where, as here, a state statute has preempted an entire field of regulation by supplying a complete system of law on the subject, any additional legislation on same subject would have the effect to change the system and any ordinances dealing with the same subject are void. (*Music Plus Four, Inc. v. Barnet* (1980) 114 Cal.App.3d 113, 121.)	agency's regulation violates section 11501.1 and must be withdrawn or rescinded. The record does not show that CDPR notified either the City of Newport Beach that its 2010 resolution, or the County of Los Angeles, that its 2018 hull cleaning ordinance, is preempted by Food and Agriculture Code section 11501.1.
MN-36	The City has concluded that that the recommended management measures and other measures that the Copper TMDL Implementation Plan involves fall within the definition of "use" under 3 C.C.R. § 6000, particularly with regard to review of AFP ingredients and mitigation measures related to the application and maintenance of CuAFPs. The City has concluded that it is unable to carry out training unless it obtains CDPR's determination pursuant to 3 C.C.R. section 6158 that "local government dissemination of information on pesticidal uses of any registered pesticide product is consistent with the uses for which the product is registered."	No commenter previously raised the argument that the Copper TMDLs Implementation Plan's recommended management and other measures identified in the Implementation Plan fall under the definitions of "use" in title 3 of the California Code of Regulations, section 6000, or that the City is "unable to carry out training unless it obtains CDPR's determination pursuant to 3 C.C.R. section 6158" as asserted in the comment. It is not clear which of the above definitions the City is referring to. Educating boaters concerning management practices or encouraging boaters to consider use of alternative anti-fouling paints, two of the Copper TMDLs' recommended mitigation measures, do not constitute "use" as defined in section 6000:

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		"'Use' means any pesticide related activity, including: (a) Pre-application activities, including; (1) Arranging for the application; (2) Mixing or loading; and (3) Making necessary preparations for the application, including responsibilities related to notification, handler training, decontamination facilities, use and care of personal protective equipment, medical monitoring and assistance, and heat stress management; (b) Application of the pesticide; (c) Post-application activities, including; (1) Control of the treated area to reduce exposure, including responsibilities for restricted entry intervals, warnings, decontamination facilities, medical assistance, and fieldworker training; (2) Management of the treated area, crop, or crop by-products, including responsibilities for preharvest intervals and plant back restrictions; (3) Transportation, storage, and disposal of excess pesticides, spray mix, equipment wash water, and pesticide containers; and (4) Cleaning of application equipment and other pesticide containing materials. (Cal. Code Regs., title 3, § 6000.)

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		See also response to comment MN-34, which discusses the 2024 AG Opinion and its identification of examples of local agency actions that can be implemented without violating Food and Agriculture Code section 11501.1. The 2024 AG Opinion concludes that local agencies may "adopt local regulations or ordinances designed to reduce the need for using pesticides, such as sanitary rules for the reduction of rodents and other pests. In the same vein, counties are free to create and distribute educational materials providing clear information about alternatives to pesticides. *Such policies and regulatory actions do not violate section 11501.1 because they do not purport to regulate pesticide regulation, sale, transportation, or use."* (*Id.,* p. 11 (emphasis added).) The types of management practices and other actions that the Copper TMDLs recommend responsible parties consider implementing to reduce copper discharges to Newport Bay are consistent with the examples the AG Opinion concludes may be implemented without violating Food and Agriculture Code section 11501.1 and do not constitute "use" as defined in CDPR's regulations.

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		Additionally, title 3, California Code of Regulations, section 6158, refers to CDPR's review and evaluation process of proposed pesticide labeling and data to support registration, which includes requirements such as the assessment of human health effects, potential for environmental damage, and toxicity to aquatic biota or wildlife. Therefore, CDPR has the authority to review the ingredients in antifouling paints. Finally, the Copper TMDLs recommend management measures for dischargers to consider but do not require implementation of any specific management measures.
MN-37	[T]he City is unable to ban the use of CuAFPs that are legally registered in favor of alternatives because Food & Agriculture Code section 12824 vests authority only in the CDPR director to "eliminate from use in the state any pesticide that endangers the . . . environment."	The Copper TMDLs do not require or anticipate that the City (or any other local agency) should ban the use of copper-based antifouling paints. Additionally, CDPR recognizes that management measures to reduce copper discharges may be necessary or appropriate in densely populated marinas. (*Department of Pesticide Regulation, Determination of Maximum Allowable Leach Rate and Mitigation Recommendations for Copper Antifouling Paints per AB 425*, January 30, 2014, pp. 3-4.) CDPR has not indicated that such management measures by local government run afoul of the Food and Agriculture Code provisions. (See also response to Comments MN-34, MN-35, and MN-36.)

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NB-1a	However, as we have expressed and testified, the current pending Amendments with regard to the Copper TMDLs continue to have us greatly concerned. This is the fourth time formal written comments have been provided by the City. Due to the failure of Regional Board staff to respond in a timely manner to comments, the lack of collaboration and what appears to be a less than serious concern for identified scientifically justifiable alternative approaches, the City does not feel the Regional Board has truly considered the submitted comments, concerns and the scientific, legal and practical opinions.	Comment noted. The Santa Ana Water Board held three different written comment periods (2016, 2018, 2021) on the proposed Copper TMDLs Basin Plan amendment. In addition, Santa Ana Water Board staff responded to comments received at the May 9 and 10, 2019 public workshops, and the City/County's Alternative Implementation Plan and Fact Sheet that were submitted in January 2022. (See Responses to Comments documents, Attachments B-1 through B-5 to the SED 2022). The Santa Ana Water Board considered and responded to comments, including scientific and legal opinions provided by the City, County of Orange, Irvine Company, and their consultants. Multiple changes were made to the draft 2022 Staff Report, SED, and Basin Plan amendment in response to comments received prior to consideration of adoption by the Santa Ana Water Board. In addition, Santa Ana Water Board Staff participated in three technical meetings held with the City, County, and Irvine Company staff and their consultants to try to reach consensus on several scientific and technical issues in August, September, and October of 2021. Notes from those meetings were recorded and distributed to meeting attendees by Orange County Public Works.

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		The Santa Ana Water Board held a hearing at which all speakers were permitted to speak and respond to board members' questions and concerns.
NB-1b	This is even more troubling as the Regional Board in this amendment is requiring the City, County of Orange (County), marina operators, boaters and others to monitor and address the effects and perceived impairments that are the direct result of legally sold and applied boat bottom paints that are reviewed and approved for sale by the State of California (State).	The Copper TMDLs require the City and County, as the primary grantees of the tidelands and submerged lands in Newport Bay, to monitor potential water quality impacts from the discharge of copper (passive discharge from leaching and active discharge from boat hull cleaning) from copper-based antifouling paints (not the paints themselves). (See response to Comment LIDO-1a, discussing jurisdictional roles and authorities.) CDPR has recognized the water quality impairments that have resulted in some marinas from the use of copper-based antifouling paints and has taken actions to lower the allowable leach rate with the adoption of their recent 2018 lower leach rate regulation (CDPR California Notice 2018-03, January 16, 2018). However, CDPR also acknowledges that the lower leach rate copper-based antifouling paints may not result in meeting the CTR copper criteria in all marinas, especially larger marinas and marinas already impaired for copper. As previously noted in this response document and previous response documents, CDPR's lower leach rate of 9.5 µg/cm^2/day also assumes that boat hull cleaning would be limited to no more than once

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		per month and best management practices such as cleaning boats with soft pile carpet would be implemented (*Department of Pesticide Regulation, Determination of Maximum Allowable Leach Rate and Mitigation Recommendations for Copper Antifouling Paints per AB 425*, January 30, 2014, pp. 3-4.).
NB-1c	In addition, as we have pointed out, long-term toxicity testing has shown there is no water column toxicity in Newport Bay related to copper.	The Santa Ana Water Board responded to similar comments in responses to comments prior to acting on the Copper TMDLs. See SED Appendix B-4, response to Comment L.5.1, p. 44, which provides the following response: "Pursuant to the 2004 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* copper should not be present when the copper concentrations meet the CTR criteria."
NB-1d	[T]he City is submitting to the State Board, the same comments (Attachments 3 and 4) provided in the previous proposed amendment adoptions as well as the 2019 bay-wide copper monitoring report, an updated review of studies conducted by regulatory agencies to evaluate	The prior responses to comments documents, and copies of presentations made at the Santa Ana Water Board's public hearing, are already in the record and are not responded to here.

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	the availability and use of non-copper antifouling paints (AFPs), and our 2022 presentation (Attachment 1) to the Santa Ana Regional Water Quality Control Board at its December 2, 2022 board meeting.	
NB-2a	At that meeting, we requested input from the Regional Board and Regional Board staff on the following items. To date, we have not received a response.	The Santa Ana Water Board previously addressed similar comments raised by the City of Newport Beach, County of Orange, and others. See responses to specific comments below.
NB-2b	The Regional Board staff has relied on outdated and/or data that is no longer relevant as many factors have changed over many years such as past and pending major dredging projects throughout Newport Bay (resulting in a change to harbor depth, flushing flow and sediment characteristics), changes to bottom paint formulas, boat locations and other items that have not been re-calculated, analyzed and considered by Regional Board staff.	Santa Ana Water Board Staff previously responded to comments by the City of Newport Beach (and others) concerning the data used to assess impairment in the Bay. (See Santa Ana Water Board's previous responses to comments documents for comments received in 2016 (pp. 23-24), 2018 (pp. 17, 33-34), and 2021 (p.44)). The finding of impairment due to dissolved copper in Newport Bay was made in accordance with the methodology established in the 2004 State Listing Policy. The State Listing Policy 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 disregards the Santa Ana Water Board's analysis of more recent data (2015-2016, 2019), provided by Anchor QEA on behalf of the City of Newport Beach, considered in development of the Copper TMDLs. Anchor

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		QEA's studies were specifically designed to characterize dissolved copper conditions in the Bay. As discussed in the 2022 Staff Report (Section 4.4), analysis of these data using the State Listing Policy methodology confirms the finding of impairment due to dissolved copper. In addition, DPR's 2019 monitoring data also confirms the finding of impairment due to dissolved copper in Newport Bay as does monitoring data from the County's 2021 Annual Stormwater Monitoring Report. For areas of the Bay that were dredged prior to the development of the TMDLs, the Santa Ana Water Board did not use pre-dredge data in its Impairment Assessment. It is unclear what the City is referring to by "…changes to bottom paint formulas…" CDPR's lower leach rate regulation for copper-based antifouling paints was adopted in 2018; however, CDPR also allowed a 3-year grace period before requiring all higher leach rate paints to be removed from stores and marinas to ensure that they were no longer being used in California. Additionally, no information is provided on what the City means by "…[changes in] boat locations and other items that have not been re-calculated, analyzed and considered by Regional Board staff."

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NB-2c	We expressed concerns with Regional Board staff desires to switch to non-copper-based bottom paints as we provided extensive data and an expert opinion that Perfluoroalkyl and Polyfluoroalkyl Substances (PFASs) in the bay water column are a foreseeable result of the proposed Copper TMDLs because they occur at very high concentrations within non-copper paints. We feel this is a serious issue that needs to be addressed by the State and Regional Board, and the Department of Pesticide Regulation (DPR) needs to review and weigh in on the proposed use. PFAS is acknowledged as an emerging chemical of concern in the marine environment. Switching paints may result in a more harmful chemical released into Newport Bay. As a side note, the State of Washington has already halted its prior ban on copper anti-fouling paints because of the lack of safe alternatives.	(See responses to Comments MN-8 and MN-10.)
NB-2d	This proposed TMDL and implementation is based on an existing requirement and mitigation methods of the Copper TMDL for Shelter Island Yacht Basin (SIYB), and after 17 years of work and extensive efforts by the stakeholders, the San Diego Regional Water Quality Control Board concluded in	(See responses to Comments OCPW-2 through OCPW-5.)

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	October 2022 that TMDL compliance will not be met (Attachment 2).	
NB-2e	The City cannot lawfully control the use of California-approved, registered pesticides as well as their associated effect on the water body. There is a legislative prohibition against local governments attempting to regulate the sale and use of registered pesticides. With that how can the nexus be made that the City, County and others be asked or required to address water column exceedances associated with these paints.	This response summarizes the Santa Ana Water Board prior responses to similar comments below: The Newport Bay Copper TMDLs do not require or anticipate that the City or other responsible parties will be required to control the use of registered pesticides. However, the Santa Ana Water Board has the authority and responsibility to address waste discharges of copper that result from the use of copper-based antifouling paints (see, e.g., Water Code, §§ 13262, 13304) as well as the ability to hold dischargers responsible for those waste discharges (see *id.* at § 13260). (See also responses to Comments MN-34 through MN-37.)
NB-2f	Understanding that most agencies agree that bottom paints are a necessary product to ensure both operational efficiencies and emission reduction, as well as help protect from the transport of invasive species, the DPR and the State Water Board (both being departments within the same agency - the California Environmental Protection Agency), should be required to coordinate and work	The Santa Ana Water Board responded to similar comments and consulted with CDPR staff on the implementation recommendations in the Copper TMDLs. Additionally, CDPR participated in the two public workshops that the Santa Ana Water Board held in May 2019. As explained in those workshops (and in previous responses to comments), the authority between the two agencies differs substantially: CDPR regulates the use of biocides in antifouling paints, while the Santa Ana Water Board regulates the discharge of those biocides into surface waters from

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	together on implementation and excepted impacts of these State-approved bottom paints.	antifouling paints, including any direct or indirect impacts to beneficial uses, including aquatic life. (See also response to Comment MN-29.)
NB-3	We respectfully request that the State Board consider the following recommendations: • Do not adopt this TMDL Amendment • Allow time for DPR to complete its multi-year study and direct Regional Board staff to review the data and findings • Review the lessons learned from the SIYB TMDL • Consider the alternative implementation plan submitted by the City and County of Orange in January 2022	• The Newport Bay Copper TMDLs Basin Plan amendment was adopted on December 2, 2022. The Santa Ana Water Board rejected this same request to not adopt the Copper TMDLs. • The SIYB saw reductions in dissolved copper concentrations within 2 years of CDPR's 2018 regulation effective date. In addition, the Port of San Diego also implemented CDPR's mitigation recommendations. • See response to Comments OPCW-2 through OCPW-5. • See response to Comment OPCW-8 and Appendix B-5 to the Substitute Environmental Document.