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Water Boards

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San Diego Regional Water Quality Control Board

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SAN DIEGO REGIONAL WATER QUALITY CONTROL BOARD

DATE: December 2, 2016

SUBJECT: PROPOSED SITE-SPECIFIC WATER QUALITY OBJECTIVES FOR COPPER AND ZINC IN CHOLLAS CREEK

The San Diego Regional Water Board (San Diego Water Board) received the comments on behalf of Coastal Environmental Rights Foundation and San Diego Coastkeeper regarding Tentative Resolution No. R9-2016-0148, which would amend the Water Quality Control Plan for the San Diego Basin to incorporate site-specific water effect ratios into water quality objectives for dissolved copper and zinc in Chollas Creek. Thank you for your comments and for your time to discuss these concerns over the phone. Please see the enclosed document with comments in italics followed by San Diego Water Board responses. Feel free to contact Melissa Valdovinos at (619) 521-8039 or mvaldovinos@waterboards.ca.gov if you would like to discuss further. We also encourage you to join us at the San Diego Water Board meeting on December 14, where Tentative Resolution No. R9-2016-0148 will be considered for adoption.

Enclosure: Responses to Comments on Tentative Resolution No. R9-2016-0148

Comment 1: The WERs Fail to Account for the Period of Greatest Bioavailability
CERF and Coastkeeper incorporate the concerns expressed in the peer review document, in total. Specifically, we wish to echo concerns related to the justification for basing the WER on the geometric mean of four sampling events in the context of the 1994 Interim Guidance. We do not agree that the sampling events upon which the Tentative Resolution is based are able to capture site-specific variability associated with temporal seasonality and flow, nor do we believe the sampling events are representative of conditions during which metals are most bioavailable. *Further, wet weather samples are not indicative of dry weather conditions. In fact, the WER study for the LA River recognized dry weather conditions as "critical conditions", i.e. that time when metals are most bioavailable. The 2014 City of San Diego study further included a footnote stating, "during wet weather, the WERs for dissolved copper and dissolved zinc are 6.998 and 1.711, respectively. During dry weather the WERs are equal to 1." Though the Regional Board's response to peer review comments indicates the dry weather WERs will be 1, the Basin Plan amendment language does not include this distinction. (See Tentative Resolution, pp. 1-2).* **Response:** Although neither of the external scientific peer reviewers framed this as a concern, one, Dr. Marc Beutel, did request that we "more precisely present the justification for basing the water effect ratio (WER) on the geometric mean of four sampling events in the context of the U.S. Environmental Protection Agency (USEPA) 1994 Interim Guidance on the Determination and Use of Water-Effects Ratios for Metals." [1] As stated in the response to his comment, the guidance recommends using the geometric mean of WER values to derive the final WER when the range of WERs is not greater than a factor of five (Interim Guidance, pp. 36-38). Please refer to the Interim Guidance (p.36), which requires that three Type 1 and/or Type 2 WERs must be available in order to derive a final WER. The use of four WER values over one calendar year (two wet weather seasons) at each of the two sites is consistent with the Interim Guidance and captures site-specific variability. Creek flow is generally wet weather driven, as documented in the study titled *Development of Site-Specific Water Quality Objectives for Trace Metals in Chollas Creek: Water-Effect Ratio Study for Copper and Zinc, and Recalculation of Lead* (WER Study). Wet weather flows occur mostly over the wet weather season (October through March). The study based WER calculations on sampling that took place during four different rain events in 2010–in February, April, October, and December. This covered the range of precipitation typically observed in this creek (WER Study, p. 36). Dry weather sampling and analysis are unnecessary since during that time, the creek is usually dry, with intermittent inputs of urban runoff from groundwater seeps, lawn watering, and other activities under ambient conditions. As noted in the WER Study, under dry conditions, the WER is considered to be equal to the national and statewide default WER value of 1.0, indicating that there is no change to the current copper and zinc WQOs in the Basin Plan. This clarification has been added to the proposed Basin Plan amendment.

[1] USEPA, 1994. Interim Guidance on Determination and Use of Water-Effect Ratios for Metals. USEPA-828-B-94-001. Office of Water, Office of Science and Technology, Washington D.C. February 1994.

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Factors influencing the toxicity of metals, and thus the value of WERs, include the form of metal (i.e., whether it is in a more bioavailable ionic state or bound with another compound); presence of organic compounds in the water column; pH; turbidity; temperature; and water hardness, among other factors. The bioavailability of all forms of metals (and thus the potential toxicity) depends on constantly fluctuating environmental conditions. As a result, the value of a WER is constantly changing in response to a changing environment. **Response:** Since these environmental conditions are dynamic, the WER, which depends on the conditions, is of course also dynamic. USEPA acknowledged this and therefore, its WER guidance recommends that multiple (at least three) samples be analyzed.
Wet weather involves heavy loading of metals into Chollas Creek through stormwater runoff. However, the initial flush of metals also typically occurs with turbidity and an influx of organic particulate matter carried with the stormwater. The turbidity and particulates help mitigate the toxicity of metals during and immediately following wet weather because metals can bind to the organic and other particulates, lowering the bioavailability of the metals. To an extent, the different types of pollution help cancel each other out in the very short term. After several days of dry weather, however, the turbidity/organic matter drops significantly, providing less opportunity for metals to bind. Thus, any metals in the water become increasingly bioavailable and increasingly toxic, and the WERs drop correspondingly. It is our understanding that sampling conducted to support the WERs did not include this critical time period. It is therefore neither reasonable nor prudent to apply WERs developed for wet weather events to dry weather conditions. *WERs also vary with environmental conditions. Therefore, to ensure that SSOs based on WERs remain protective of all designated beneficial uses at all times and also remain consistent with the narrative WQS, a WER study must analyze the "critical condition." The critical condition is the point in the hydrologic cycle when the WER is at its lowest value – reflecting the point of highest toxicity of a pollutant in a waterbody. Conversely, if the WER study does not analyze the critical condition, the calculated WER value will not accurately reflect the relative toxicity and any SSOs and TMDLs multiplied by the WER could result in toxic levels of pollution in the waterbody or otherwise fail to provide an appropriately protective standard to support the designated beneficial uses. By monitoring only during wet weather (as opposed to dry weather, or dry weather during the wet season), the study fails to adequately capture the critical condition.* *Notably, staff recognizes "USEPA's WER guidance recommends WER testing under conditions that are representative of the site." (Response to External Peer Review Comments, p. 2). Though stream flow may only occur when there is "sufficient precipitation to produce runoff to Chollas Creek," the Creek has "highly variable flows" and "during dry weather, there are often extended periods of no surface flows in the creek," but "pools of standing water may be present." (Chollas Creek Diazinon TMDL, Technical Report, p. 11). "In general, 90% of the water flow occurs during less than 10% of the year, i.e., the most significant storm events and associated high flows usually occur during the months of December, January, and February." (Id.at pp. 29-30). Here, however, sampling was conducted only during wet weather,*

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subsequent to rain events, in an El Nino year. Such sampling is not representative of the conditions of Chollas Creek.

Response:

As explained in the WER Study and responses to peer review comments, the WERs were developed for wet weather conditions and will not be applied to dry weather conditions. This clarification has been added to the proposed Basin Plan amendment.

Rainfall totals indicate there is nothing anomalous about the size of these storm events despite El Niño conditions during a portion of the time samples were collected—over one calendar year (two wet weather seasons). 2010 water chemistry data used to calculate the four WER values at each of the two sites is comparable to 2014 confirmation data.

Further, because a flow-weighted composite was used, the study fails to account for the critical condition and when the WER would be lowest. Use of the flow-weighted composite sampling directly impacts the sufficiency of the proposed WER. If the pollutant concentration changes quickly, drastically, or both, a flow-weighted measured pollutant concentration may not represent the average pollutant concentration accurately for the incremental volume.

Regional Board staff indicate flow-weighted composite sampling was required by the MS4 Permit and therefore the Chollas Creek WER Study used such monitoring. (Response to External Peer Review Comments, p. 2). This is nonsensical. First, the MS4 Permit was adopted after the WER Study sampling was conducted. (R9-2013-0001). Further, the MS4 Permit requires flow-weighted composite sampling to assess receiving waters throughout the County – not for development of a water-body specific WER. (See R9-2013-0001, pp. 55-56). Indeed, the MS4 Permit's toxicity monitoring allows for either grab or composite sampling. (Id., p. 51). The WER study's departure from the USEPA recommendation to collect samples during first flush when metal concentrations are likely to be highest (worst case scenario) is therefore inappropriate and results in a WER that is not protective of water quality and beneficial uses.

Thus, the WERs proposed do not represent the most conservative approach to protecting beneficial uses in Chollas Creek, do not represent the true critical condition, and should not be used as the basis for the Tentative Resolution at this time.

Response:

The Chollas WER Study used flow-weighted composite samples, in part, because that was the type of water quality sampling required by the Regional MS4 Permit. This was in fact Order No. R9-2007-0001 at the time, the predecessor to the current permit. The current Regional MS4 Permit does state that Copermittees must collect "grab or composite samples." All receiving water samples collected in Chollas Creek, for compliance with the Regional MS4 Permit requirements to assess toxicity, are flow-weighted

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composite samples. As noted in the WER Study and in responses to peer review comments, flow-weighted composite samples are the appropriate type of sample to use for wet weather events because they best represent the concentration of metals and other relevant constituents to which aquatic life are exposed throughout the storm event. In addition, flow-weighted composite samples will be weighted towards the water quality that occurred when flow was highest (at or near its peak). This condition is not the first flush, when constituents such as suspended solids and organic carbon, as well as metals, are likely to be highest (most concentrated) due to initial runoff (see 2005 Caltrans study referenced in responses to peer review comments).[2] During peak flow, these and other constituents are diluted, which would increase the potential bioavailability of metals. As noted previously, wet weather events are short-lived in the Chollas Creek watershed, often lasting on the order of four to eight hours. Therefore, it is more appropriate to collect and analyze flow-weighted composite samples rather than test particular subsamples that represent a very short exposure. For comparison, toxicity tests are conducted over a period of 48 hours.

Comment 2: The WERs Violate State and Federal Antidegradation Policies

If, despite these failures in the study, the Board moves forward to adopt the Tentative Resolution, at the very least, the Board should heed the recommendations in the Peer Review Comments that the most conservative lowest value for copper and zinc be adopted (i.e., 4.951 for copper and 1.183 for zinc). To do otherwise would violate anti-degradation laws.

Response:

Please refer to page 38 of the 1994 Interim Guidance. USEPA recommends using the geometric mean except when there may be extreme variability in individual WERs and there is a water quality-based reason to use one WER over another. In this WER study, WERs were not highly variable as noted in responses to peer review comments. In fact, the coefficients of variation of the copper and zinc WERs based on site DP2 (the site having the more conservative WERs) were 0.311 and 0.252, respectively. Given the low variability among WERs in this study, the fact that each WER is based on flow-weighted composite samples for each wet weather event, and the study is based on more than the minimum number of WERs suggested by USEPA, there is high confidence in using the geometric mean. There is no scientific basis for selecting the minimum WERs in this case.

The Clean Water Act seeks to "restore and maintain" the "integrity of the Nation's waters." (33 U.S.C. §1251(a)). This fundamental purpose of the Act have given rise to a robust federal anti-degradation policy, which prohibits actions which further degrade impaired waters (i.e. actions that lower the quality of waters that already do not meet water quality standards for a pollutant). (40 C.F.R. §131.12(a)(1).)

[2] Stenstrom, M. and M. Kayhanian. 2005. First Flush Phenomenon Characterization. California Department of Transportation, CTSW-RT-05-73-02.6. Caltrans Division of Environmental Analysis, Sacramento, CA

Comment 2: The WERs Violate State and Federal Antidegradation Policies

California's state anti-degradation policy (see SWRCB Resolution 68-16), which applies to both existing and potential uses, also prohibits further degradation of impaired waters, and includes additional requirements related to high quality waters. The quality of existing high quality waters must be maintained unless the State can demonstrate any degradation in quality is "consistent with the maximum benefit to the people of the State, will not unreasonably affect present and anticipated beneficial use of such water, and will not result in water quality less than that prescribed in the policies."

The SWRCB's Administrative Procedures Update (APU) 90-004 provides additional guidance on the content, analysis, and findings required in state anti-degradation analyses. APU 90-004 also mandates that whenever feasible, anti-degradation analyses should be integrated with CEQA analyses for projects subject to CEQA. (APU, p. 3). Taken together, the federal and state anti-degradation requirements prohibit the further degradation of impaired waters.

Here, Regional Board staff acknowledge the WER's potential to result in degradation. (WER Draft Technical Report, p. 25 ["The Basin Plan amendment has the potential to allow degradation to water quality, because use of site-specific WERs increases the permissible copper and zinc loadings in Chollas Creek."]). Specifically, due to the variability in samples, the use of any WER greater than the lowest WER sampled guarantees that at least some conditions under which the allowed toxicity for copper exceeds the toxicity of the Creek under the baseline WQOs. Since Chollas Creek is already impaired for copper, application of the proposed geometric mean copper WER of 6.998 is certain to further degrade water quality in Chollas Creek. Whenever the true WER in Chollas Creek falls below 6.998 (as it did for at least one instance in conjunction with the WER study), applying the WER of 6.998 will lead to underestimation of the bioavailability and toxicity of copper in the tributary – and a decline in actual water quality with respect to copper relative to the baseline WQOs.

The SSOs based on a copper WER that is not the most conservative thus violate antidegradation policies and are unlawful. The use of a flow-weighted composite sampling technique further fails to account for the critical condition – when the WER would be lowest – as the result does not provide for the most conservative WER under circumstances when metals are most bioavailable. The use of the flow-weighted composite sampling technique therefore violates antidegradation policies and is unlawful.

Response:

The Chollas Creek Metals TMDLs and the proposed site-specific WERs are designed to protect in-stream uses in Chollas Creek consistent with 40 C.F.R. § 131.12(a)(1). These in-stream uses include Warm Freshwater Habitat (WARM) and Wildlife Habitat (WILD) beneficial uses. The WQO that has historically been violated in Chollas Creek is "toxicity." The San Diego Water Board determined that some metals (copper, lead, and zinc) may cause and/or contribute to the toxicity of aquatic life in Chollas Creek. However, the metals concentrations that may be "toxic" depend on many site-specific factors such as hardness. The WER Study refined the San Diego Water Board's understanding of conditions in Chollas Creek that affect the bioavailability of copper and zinc

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and hence, their toxicity. The WER Study revealed higher concentrations of copper and zinc may indeed be discharged to achieve the same level of protection of aquatic life as required under the California Toxics Rule (CTR). Although the adoption of the proposed site-specific WER does not compromise the protection of aquatic life, an antidegradation analysis was conducted simply because there is a potential "increase in concentration" compared to WERs of 1.0 (default value, which assumes creek water is equivalent to laboratory water). As described in the technical analysis, the San Diego Water Board finds that the antidegradation analysis is consistent with 40 Code of Federal Regulations (CFR) 131.12 and State Board Resolution 68-16.

Further, Administrative Procedures Update (APU) 90-004 is not controlling as it is only applicable to National Pollutant Discharge Elimination System permitting. To the extent that APU 90-004 provides relevant guidance in interpreting 40 CFR 131.12 and State Board Resolution 68-16 in the basin planning context, it does not require adoption of the most conservative site-specific WERs from the sampling data. To be consistent with antidegradation principles, a proposed action that results in degradation is consistent with the State and federal antidegradation policies as long as the degradation meets all applicable requirements, including that the degradation is to the maximum benefit of the people of the State.

State Board Resolution No. 68-16 only requires that any degradation "will not unreasonably affect beneficial uses". The proposed site-specific WERs for were selected because the WER study established that these levels of copper and zinc are not additively, synergistically, or cumulatively toxic to aquatic resources in Chollas Creek.

Similarly, 40 CFR 131.12(a)(2)(ii) only requires that the San Diego Water Board consider a range of practicable alternatives. The State is not required to pick the least degrading alternative. The inherent purpose of the WER Study is to evaluate if, and to what extent, the WQOs for metals can be adjusted while still being protective of aquatic life. The WER Study evaluated the range of toxicity results that would be most representative of conditions in Chollas Creek during wet weather. While the San Diego Water Board appreciates the commenters' concern that a more conservative site-specific WER for copper would be more appropriate, there is no technical basis for doing so. As previously noted, using the geometric mean and flow-weighted composite samples do not compromise the procedure for determining WERs; the calculations are consistent with the guidance and the samples type is the appropriate type to use for wet weather events because they best represent the concentration of metals and other relevant constituents to which aquatic life are exposed throughout the storm event.

Comment 3: Adoption of the WERs Will Likely Result in Significant Environmental Impacts

To achieve CEQA compliance here, the Regional Board purports to tier from a substitute environmental document (SED) which accompanied the adoption of the TMDLs. (Draft Technical Report, pp. 22-25). Such tiering does not absolve the Board from conducting further CEQA review. In fact, nothing in the SED or the TMDL addressed the potential significance impacts of a site-specific WER. As noted

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above, adoption of the WER and basin plan amendment may "allow degradation to water quality, because use of site-specific WERs increases the permissible copper and zinc loadings in Chollas Creek." (WER Draft Technical Report, p. 25). Further, because the proposed WERs lead to underestimation of the bioavailability and toxicity of copper at least some of the time, the basin plan amendment will most certainly result in significant impacts to water quality and biology.

Response:

The San Diego Water Board prepared substitute environmental documentation for the Chollas Creek Metals TMDL consistent with State Water Board California Environmental Quality Act (CEQA) regulations (23 California Code of Regulations [CCR] § 3777 et seq.) When a project is modified, subsequent environmental review is only required if 1) substantial changes are proposed in the project which will require major revisions of the environmental review document, 2) there are substantial changes to the project's circumstances that will require major revisions, or 3) new information becomes available. (14 CCR 15162; Friends of the Coll. of San Mateo Gardens v. San Mateo Cty. Cmty. Coll. Dist. (2016) 378 P.3d 687.) None of these circumstances are present here.

The amendment revisits the TMDLs to refine the WERs from a default value of 1.0, representative of laboratory water, to site-specific WERs that represent actual conditions in the creek. Environmental impacts from potential best management practices (BMPs) to reduce metal concentrations were assessed during development of the original TMDLs. The BMPs to comply with the site-specific WER scenario would be equally protective of aquatic life and they are anticipated to be of similar nature to BMPs required to comply with the original TMDLs. Further, the San Diego Water Board has evaluated whether higher concentrations of copper and zinc would result in new significant effects or increase the severity of previously identified significant effects thereby triggering additional CEQA review. The San Diego Water Board has concluded that adoption of site-specific WERs does not involve new environmental effects because the potential increase in the concentrations of copper and zinc in Chollas Creek is not expected to result in an increase in the toxicity of to life nor create impacts to downstream water quality.

The commenters' assertion that the proposed WERs "will most certainly result in significant impacts to water quality and biology" is misleading. Under CEQA, a project has a significant effect on the environment if the project would cause a substantial, or potentially substantial, adverse change to the environment. (Public Resources Code § 21083; 14 CCR § 15065.) However, here, the adoption of the proposed site-specific WERs will result in an improvement of the environment over baseline conditions because the allowable metals in Chollas Creek will be less than existing conditions. The fact that site-specific WERs may result in discharges with higher concentrations of copper and zinc as compared to the default WER value of 1.0 does not affect significance for the purposes of CEQA.

Notably, the 2011-2012 San Diego Copermittee San Diego Bay WMA trend assessment for Chollas Creek highlights a continued increase in concentration of numerous constituents, including copper, despite adoption of the TMDL. (See attached, Exhibit A). Thus, any relaxation of

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the TMDL will likely result in further increases in copper loading. This is particularly true where the City – through application of the WERs – falsely believes it is in compliance with the TMDL and CTR and therefore curtails implementation of additional or more robust BMPs.

Response:

The graphs presented in Exhibit A of the comment letter do not support the suggestion that adoption of site-specific WERs will result in further increases in copper loadings. The Copermittees have implemented BMPs and are required to continue implementing them to meet the interim and final goals for achieving prescribed wasteload allocations (WLAs). By "Year 10" (2017), the maximum allowable percentage exceedance of WQOs will be 20%. By "Year 20" (2027), dischargers will be expected to meet the WLAs in their effluent discharges and WQOs for metals in Chollas Creek. The "relaxation" of the WQOs for copper will not result in further increases in copper loadings. If the proposed site-specific WERs are adopted, the toxicity criterion for copper would simply be raised relative to the WQOs that are based on WERs of 1.0. However, dischargers are still required to meet appropriate and protective WQOs for copper in Chollas Creek.

Most of the graphs in Exhibit A present parameters that are not relevant to this Basin Plan amendment and do not appear to be statistically meaningful. The graphs for copper and zinc, which of course are relevant constituents, suggest that there is not a significant difference in concentrations between 2002 and 2013 as indicated by the very low slope values. Furthermore, these data are not statistically analyzed. A significance test would be needed to determine any significant correlations. This was not shown. In addition, this type of data should be analyzed using trend analysis, which better accounts for natural variations over time. Finally, the data displayed indicates that there is no relationship in *Hyalella* acute survival over the same time period. Since *Hyalella* is sensitive to copper and zinc, this result suggests there is no statistically significant increase of metals over time.

In addition, the Board's disregard for downstream impacts further undermines its position that the WERs will not result in significant environmental impacts and is equally troubling. (See Response to Comments Regarding Downstream Impacts). The Board assumes downstream impacts at the mouth of Chollas Creek will not result in a significant impact because of naturally high DOC, neutral pH of the water, and oxygenation during the mixing process. (Response, p. 3). However, a SCCWRP storm water toxicity study of the Chollas Creek plume found plume toxicity in the Bay was similar to the toxicity of the Creek itself. (Stormwater toxicity in Chollas Creek and San Diego Bay, California, p. 232). Moreover, marine organisms were more sensitive to such toxicity. (Id. at p. 224). Thus, an increase in metal-loading to Chollas Creek will increase toxicity in the Chollas Creek plume, as well as toxicity to marine organisms in the Bay.

Response:

The mouth of Chollas Creek is listed for sediment toxicity and benthic community degradation. TMDLs have been proposed for polychlorinated biphenyls (PCBs), polycyclic aromatic hydrocarbons (PAHs), and Chlordane since these have been identified

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as potential toxic pollutants in sediment at the creek mouth.

The February 5, 2016 responses to comments concerning potential downstream impacts from adopting WER values that represent site-specific conditions was included in the scientific external peer review. One of the peer reviewers, Dr. Marc Beutel, commented that he did not find any significant areas of concern related to the scientific rationale, and noted that the 2011 Southern California Coastal Water Research Project (SCCWRP) study clearly found that sediment toxicity was associated with exposure to organic compounds. The other peer reviewer, Dr. Robert Mason, commented that the assessment represents a scientifically defensible position, and noted that the major cause of sediment toxicity has been shown to be organic contamination and not metals.

The SCCWRP plume studies performed in 2000 relied on the sea urchin fertilization test. Their own evaluation of this study pointed out the limitations of extrapolating these results to other marine life (Stormwater Toxicity in Chollas Creek and San Diego Bay, California, p. 232).[3] Also, the plume samples collected in the creek and bay in this study were captured at only one point in time during the rain event, so an assessment of temporal changes was not possible. More recent studies during a large storm event at the end of February into the beginning of March 2014 at the mouth of Chollas Creek and off Naval Base San Diego, indicated no toxicity to bivalve embryos (*Mytilus galloprovincialis*) exposed both in situ and in the laboratory at a location that was most directly influenced by stormwater runoff in Chollas Creek, located near the surface within the channel.[4] Finally, as discussed above, the total allowable copper and zinc in Chollas Creek is expected to be less than baseline conditions such that downstream conditions for these metals should also improve. Therefore, the San Diego Water Board concluded that there is no evidence of potential downstream impacts associated with the adoption of the proposed site-specific WERs.

Likewise, the Regional Board's reliance on Investigative Order No. R9-2015-0058 to verify the Board's assumption that by application of the WERs will not negatively impact sediment toxicity has the process exactly backwards. (Response to Comments, p. 4). Should results of the Investigative Order show negative impacts to beneficial uses, the Board commits to "revisit" the TMDLs. Rather than approving a potentially detrimental basin plan amendment, the Board should confirm its assumptions and wait for the results of the Investigative Order prior to adopting a WER.

In summary, because the SED did not address the significant water quality and biological impacts which will likely result from the Board's

[3] http://ftp.sccwrp.org/pub/download/DOCUMENTS/AnnualReports/2001_02AnnualReport/23_ar15-ken.pdf
[4] Rosen, G., B. Chadwick, M. Colvin, B.C. Stransky, A. Burton, J. Radford, H. Bailey, A. Cibor, M. Grover, M. Greenberg, 2016. Demonstration and Commercialization of the Sediment Ecosystem Assessment Protocol. Draft Final Report for the Department of Defense (DoD) Environmental Security Technology Certification Program, Project #ER-201130. October 13, 2016. https://www.serdp-estcp.org/

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adoption of the WERs and basin plan amendment, adoption of the proposed Tentative Order without further CEQA review will result in a violation of the letter and spirit of CEQA. **Response:** There is no indication that adopting WER values that represent site-specific conditions will result in "significant water quality and biological impacts" or "detrimental effects" of any kind. Consistency with USEPA guidance, employing sound science, and peer review by technical experts support the conclusion that adopting site-specific WERs will be equally protective. However, as always with TMDLs, if any unforeseen circumstances arise that threaten beneficial uses, the TMDLs for metals in Chollas Creek would have to be revisited.

Conclusion
When establishing SSOs, it is essential that data used for Basin Plan and TMDL changes is representative of watershed conditions in which they apply. Robust and continual site-specific data for water chemistry, ecological function, native species, precipitation, etc., is necessary to ensure changes to WQOs will protect designated beneficial uses. CERF and San Diego Coastkeeper strongly believe SSOs should be applied with caution. Where used, it is imperative that SSOs are supported by sound and sufficient science and monitoring. CERF and San Diego Coastkeeper are likewise concerned about the lack of a defined process to evaluate the protectiveness of the SSOs over time. For that reason, and because WQOs for copper in Chollas Creek would increase by a factor of 7, we urge the Regional Board to reject the proposed Tentative Resolution until adequate and robust data supports adoption of site-specific WERs. **Response:** Site-specific WERs were developed in accordance with the appropriate USEPA guidance.