

Appendix M

Responses to Public Comments

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Introduction

This appendix contains the responses to stakeholder and public comments received during the development and public hearing process of the *Total Maximum Daily Loads for Toxic Pollutants in Sediment at San Diego Bay Shorelines – Mouths of Paleta Creek, Chollas Creek, and Switzer Creek*.

The technical TMDL was originally presented to the San Diego Bay Sediment TMDLs Work Group on September 15, 2008 where both oral and written comments were received on the project and relating to CEQA scoping. These comments are presented in Sections III and IV. A publicly noticed workshop and CEQA scoping meeting was held on October 14, 2008. Section II presents responses to oral comments received on both the project and the scope of environmental issues related to the project from this meeting. Additionally, a number of written comments were received by email and letter during project development and are included in Section IV.

I. Comments Received during Public Comment Period beginning February 19, 2013

To be added at a later date after the close of the comment period.

1.	TBD	
	Comment:	Response:

II. Comments Received at Public Workshop and CEQA Scoping Meeting, October 14, 2008

1.	<p>Len Sinfield, U.S. Navy</p> <p>Comment: Will the Basin Plan Amendment incorporating the TMDL have flexibility to change the TMDL or waste load allocations at a later date?</p>	<p>Response: Yes. The San Diego Water Board may amend the Basin Plan at any time. Additionally, the implementation plan in section 10 of the draft Technical Report incorporates an adaptive management approach and a TMDL re-evaluation clause in the event that the implementation of these TMDLs is not resulting in the restoration of beneficial uses. The adaptive management approach is expected to provide flexibility for both the San Diego Water Board and the responsible parties. The San Diego Water Board may revise and re-issue WDRs or use its regulatory authorities in response to results from monitoring data and special studies, or other new information. Responsible parties are expected to utilize adaptive management in the implementation of programs that implement TMDL requirements.</p>
2.	<p>Chuck Katz, U.S. Navy</p> <p>Comment: Mr. Katz stated that there has been some coring done in Paleta Creek, but that the data are very limited. There is not a lot of data on what is below the superficial sediments.</p>	<p>Response: The San Diego Water Board thanks Mr. Katz for noting data limitations.</p>
3.	<p>Chuck Katz, U.S. Navy</p> <p>Comment: Will past and present discharges be discussed and considered in the Technical Report?</p>	<p>Response: The Source Assessment in Section 5 of the draft Technical Report and the Compilation of Sediment, Storm Water and Water Quality Data in Appendix F provides discussion and descriptions of past and present discharges.</p>

<p>4.</p>	<p>Chuck Katz, U.S. Navy</p> <p>Comment: Is the San Diego Water Board using the Chollas TIE (toxicity identification evaluation) study as a basis for naming numeric targets in the other creeks? It should be noted that the study reported that PCBs concentrations were too low to be considered toxic. Why is the San Diego Water Board developing TMDLs for PCBs in the three watersheds?</p>	<p>Response: Numeric target selection was based primarily on results of TIE studies conducted at each of the waterbodies. Phase I studies conducted at each of the waterbodies were also considered.</p> <p>The Sediment Toxicity Identification Evaluation for the Mouths of Chollas and Paleta Creeks (Greenstein et al. 2005) identified non-polar organic chemicals as source of toxicity. The study identified that the probable causes of toxicity were chlordane and PAHs at Chollas Creek Mouth and PAHs in Paleta Creek Mouth. Additionally, bioaccumulation evidence was presented in the Sediment Assessment Study for the Mouths of Chollas and Paleta Creeks, Phase I Final Report (SCCWRP and SPAWAR 2005) that benzo(a)pyrene (BAP), a high molecular weight PAH, and PCBs were found to be bioaccumulating in clam tissue at both Chollas and Paleta creek mouth areas.</p> <p>A similar study was performed for Switzer Creek Mouth (Anderson et al. 2005) that also identified non-polar organics as the cause of toxicity in the waterbody. The study reported that sediment toxicity was highly correlated with chlordane and PCBs concentrations and weakly correlated with mixtures present in the sediment, including PAHs. Anderson et al. (2005) also reported that clams exposed to site sediments were bioaccumulating BAP, potentially impairing aquatic-dependent wildlife.</p> <p>The purpose of adopting the TMDLs for these non-polar organic pollutants is to correct impairments and restore beneficial uses. Currently, San Diego Bay is listed on the CWA section 303(d) List for PCBs in fish tissue. The presence of PCBs in Bay sediment at documented Toxic Hot Spots and proof that PCBs are bioaccumulating up the food chain at these locations is sufficient evidence for TMDL development. Additionally, CWA section 303(d)(3) provides authority for the San Diego Water Board to develop TMDLs for all pollutants in all waterbodies.</p>
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5.	<p>Chuck Katz, U.S. Navy</p> <p>Comment: Will a table be included in the technical report to specify what kind of reductions will be included in a total suspended solids (TSS) load to meet the TMDL goals?</p>	<p>Response: No. While the model uses TSS as a surrogate for the pollutants, the TMDLs have been developed as pollutant loads that will ultimately attain pollutant sediment concentrations in the bay sediment at or below a concentration that is protective of beneficial uses.</p>
6.	<p>Chuck Katz, U.S. Navy</p> <p>Comment: On the subject of Waste Load Allocations (WLAs), is today's presentation referring to allocating responsibility to stakeholders or allocating where each responsible party would have to meet a specific target?</p>	<p>Response: WLAs pertain to allocation of a portion of the TMDL to a particular party. It is used to measure compliance with the TMDL.</p>
7.	<p>Chuck Katz, U.S. Navy</p> <p>Comment: The commenter requested that the Technical Report specifically state how the land uses contribute as pollutant sources.</p>	<p>Response: The Source Assessment in Section 5 of the draft Technical Report reviews the known sources and discusses how each source contributes each pollutant of interest.</p>
8.	<p>Chuck Katz, U.S. Navy</p> <p>Comment: Is there an official stakeholder list?</p>	<p>Response: The San Diego Water Board maintains contact information for parties that have been involved with the project to date. There is also an electronic mailing list subscription for the project that is used to distribute all publicly noticed information.</p>
9.	<p>Ivan Karnezis, Caltrans</p> <p>Comment: Please explain the significance of the 20% threshold used in the numeric target selection.</p>	<p>Response: Field et al. (2002) developed individual chemical logistic regression models to predict the probability of toxicity using a national database of matching sediment chemistry and toxicity data. The 20 percent threshold (T20) of the dataset is the point where 20 percent of the samples were toxic. Chemical concentrations below the T20 value were predicted to be associated with a low incidence of toxicity and concentrations above (T20 – T50) had moderately low incidence of toxicity.</p>
10.	<p>Ivan Karnezis, Caltrans</p> <p>Comment: Since it seems as though the PAHs are the biggest culprit, would it be better to model each pollutant separately.</p>	<p>Response: Each pollutant is modeled separately.</p>

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11.	<p>Ivan Karnezis, Caltrans</p> <p>Comment: Will the measure of compliance be sediment or water quality?</p>	<p>Response: There will be two measures of compliance: pollutant loading (water quality and flow) in the watersheds and sediment quality assessment in the creek mouth areas. It is expected that the water quality measurement will be total pollutant concentration of the water sample. Sediment quality assessment includes measurement of sediment concentration, toxicity, and benthic community condition and an assessment of attainment of the Aquatic Life Sediment Quality Objective (SQO).</p>
12.	<p>Ivan Karnezis, Caltrans</p> <p>Comment: Please describe the difference between a cost-benefit analysis and a use-attainability analysis.</p>	<p>Response: A use-attainability analysis is used to make a change in the basin plan with regard to how the beneficial uses are identified (e.g, changing a beneficial use currently in the Basin Plan). A cost-benefit analysis is a process that attempts to measure the social benefits of a proposed project in monetary terms and compare them with its costs. The TMDL basin plan amendment process does not require either of these analyses to be performed.</p>
13.	<p>Stephanie Bauer, Port of San Diego</p> <p>Comment: Do the models account for other sources, such as creosote pilings?</p>	<p>Response: Other sources are considered to the extent that they are represented by the data used as boundary conditions within the model for background toxic pollutant concentrations in Bay seawater. For instance, water column total PAH concentrations reported by Katz (1998) were the basis of the pollutant concentrations used for the boundary condition in the model. The study reported that PAH fingerprinting characterized the seawater samples as predominantly weathered creosote. Additionally, fuel product sources were also identified at a sample site located in the vicinity of Naval Base San Diego.</p>

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14.	<p>Karen Holman, Port of San Diego</p> <p>Comment: If the TMDLs are only allocated to upstream sources, how can the San Diego Water Board be sure that other bay sources are not affecting the concentrations in the sediment at the creek mouths? Upstream sources could actually be doing a good job within the watershed, but the overall numbers might remain the same or even increase due to bay sources.</p>	<p>Response: Based on a review of the sources, the primary source of pollutants to the creek mouth areas is the loading from the watershed sources. The TMDL Implementation strategy is to reduce and control watershed-based pollutant loading and remove the contaminated sediment impairing the creek mouth areas. The model indicates that if the bay sediments are cleaned-up to levels at or below the numeric targets and the discharges from the watershed meet the TMDLs/WLAs then the bay sediments would not exceed the Aquatic Life SQO over time. Additionally, sediment remediation efforts at other locations within the Bay should provide added assurance that other bay sources would not re-contaminate these creek mouth areas.</p>
15.	<p>Karen Holman, Port of San Diego</p> <p>Comment: If the watershed load reduction for PCBs is zero, why is the San Diego Water Board adopting a TMDL for PCBs?</p>	<p>Response: A zero load reduction means that the existing load, based on storm water monitoring data collected in 2006 and 2009-10 and the flow measurements from a high flow hydrologic year, was sufficient to maintain sediment pollutant concentrations in the waterbody at or below the numeric target at the end of the three-year model run. In other words, the existing load equals the TMDL.</p> <p>The basis for calculating PCB TMDLs for these waterbodies is TIE results that identified non-polar organics and clam tissue data that demonstrated bioaccumulation of PCBs.</p>
16.	<p>Ed Kimura, Sierra Club</p> <p>Comment: There does not appear to be any data to support sediment resuspension as a pollutant source.</p>	<p>Response: The San Diego Water Board agrees and is not aware of any site-specific data; however, it is reasonable to expect that resuspension occurs and can cause contaminated sediment to move in localized areas within the Bay. For this reason, sediment resuspension was identified as a potential source in the Source Assessment, but was not quantified. For purposes of the receiving water model, literature values were used for this term.</p>

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17.	<p>Ed Kimura, Sierra Club</p> <p>Comment: The San Diego Water Board is misreading the sediment quality objectives. The original study used several lines of evidence; it appears that the Technical Report will only be considering sediment concentration. The analysis appears to be ignoring health effects and bioaccumulation. How can the San Diego Water Board set sediment quality objectives without considering other lines of evidence? I think this is unacceptable. When are you going to consider this? What you're basing this on is only a draft.</p>	<p>Response: The numeric targets have been revised and are now based on the Multiple Lines of Evidence (MLOE) approach of the Aquatic Life SQO. Use of the MLOE approach ensures that sediment chemistry, toxicity, and benthic community lines of evidence are considered in setting the numeric targets for each of the pollutants of concern. In addressing health effects and bioaccumulation, concentration-based TMDLs are proposed for water column concentration at the three creek mouth areas, based on the human health California Toxics Rule criteria that are for consumption of organisms. Additionally, a fish tissue numeric target based on the California Office of Environmental Health Hazard Assessment's Fish Contaminant Goals for PCBs will be implemented through an investigative order to monitor fish tissue in San Diego Bay.</p>
18.	<p>Ed Kimura, Sierra Club</p> <p>Comment: How will the CEQA Process address issues that may not appear in the CEQA Checklist?</p>	<p>Response: To the extent that the public identifies such issues during the CEQA Scoping and subsequent public review process, the San Diego Water Board will consider any additional issues not currently in the checklist. The San Diego Water Board welcomes any additions and comments on the CEQA checklist from the public.</p>
19.	<p>Bob Harris, National School District</p> <p>Comment: Is the San Diego Water Board making the assumption that all pollutant sources are coming from storm water (i.e., runoff from watershed land uses) and not the bay and adjacent industrial and military sources near the creek mouths?</p>	<p>Response: The San Diego Water Board has considered all of the known sources, which are discussed in Section 5 of the draft Technical Report. The primary source to each of the creek mouth areas is storm water flow from all of the land uses, including industrial and military uses near the waterfront.</p>

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20.	<p>Bob Harris, National School District</p> <p>Comment: If a school district has never had an illicit discharge, then the only runoff being contributed to the watershed is rainwater.</p>	<p>Response: Whether or not an illicit discharge has taken place does not negate or affirm the need for storm water pollution prevention through the use of management measures and best management practices.</p> <p>Urban development creates new pollution sources as human population increases and brings with it proportionately higher levels of car emissions, car maintenance wastes, municipal sewage, pesticides, household hazardous wastes, pet wastes, trash, etc. which can either be washed or directly dumped into the municipal separate storm sewer system (MS4). As a result, the runoff leaving the developed urban area is greater in pollutant load than the pre-development runoff from the same area.</p> <p>School district facilities have many impervious areas, including parking lots, playground areas, building rooftops, and lunch areas, which cause rain water to runoff and discharge to a Phase I MS4 or a water body. These areas should be maintained through good housekeeping practices in order to prevent pollutants that accumulate on impervious surfaces from coming into contact with storm water.</p>
21.	<p>Bob Harris, National School District</p> <p>Comment: Please clarify the purpose of the Public Workshop and CEQA Scoping Meeting. Is the San Diego Water Board looking for a funding source to cleanup contaminated Bay sediment?</p>	<p>Response: The Public Workshop and CEQA Scoping Meeting are stakeholder outreach efforts to inform the public about the project and receive comments and concerns from the public regarding the project itself and any physical environmental impacts from the implementation actions that may be taken as a result of the project.</p>
22.	<p>Elidia Dostal, Latham & Watkins for NASSCO</p> <p>Comment: NASSCO shipyard requests that since the shipyard is impacted by Chollas Creek, a portion of the shipyard should be included in the TMDL.</p>	<p>Response: The San Diego Water Board has provided an exclusion of the NA22 polygon from CAO No. R9-2011-0001. This Basin Plan Amendment incorporating TMDLs for Toxic Pollutants in Sediment at Chollas Creek Mouth will apply to the NASSCO leasehold portion that overlaps with the TMDL project footprint at Chollas Creek. As part of the TMDL implementation in Section 10 of the draft Technical Report, the San Diego Water Board will issue a CAO for the purpose of remediating contaminated sediment in the mouth of Chollas Creek. NASSCO will be named as a responsible party in the CAO.</p>

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23.	<p>Rosanna Lacarra, PBS&J for the City of Irvine</p> <p>Comment: Will the environmental documentation required to meet CEQA be a programmatic document? If so, would these projects then have to go through additional CEQA review?</p>	<p>Response: This TMDL project, which will be adopted as a Basin Plan amendment, sets performance standards for meeting established water quality standards and includes an implementation plan that identifies actions that should be taken to implement the performance standards. The CEQA analysis for this project is on a programmatic level as the San Diego Water Board is not allowed to prescribe or specify what measures are to be used where. Responsible parties will determine what actions that they will implement to meet their wasteload allocations (e.g., structural/non-structural BMPs). Responsible parties will need to comply with the requirements of CEQA as they pertain to the actions that they implement that may have physical impacts on the environment. Sediment remediation will be needed to address the contaminated bay sediment impairing aquatic life and human health and a more specific CEQA analysis will be required.</p>
24.	<p>Rosanna Lacarra, PBS&J for the City of Irvine</p> <p>Comment: Will a formal cost benefit analysis be required?</p>	<p>Response: No, a formal cost benefit analysis is not required when adopting a basin plan amendment.</p> <p>In the Porter-Cologne Act, economic considerations are to be considered when adopting water quality objectives.¹ However, a TMDL is not a water quality objective, but rather a performance standard that translates an existing water quality objective. In another requirement, an estimate of the cost of such a program, together with an identification of potential sources of financing must be stated when implementing any agricultural water quality control program.²</p> <p>The Basin Plan amendment process is a Certified Regulatory Program under CEQA that requires the San Diego Water Board to perform an environmental analysis of the reasonably foreseeable methods of compliance with WLAs and LAs. This analysis must take into account a reasonable range of various factors, including economic factors.³</p>

¹ Pursuant to Water Code section 13241
² Pursuant to Water Code section 13141
³ Pursuant to title 23 CCR section 3777(c)

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25.	<p>Scott Stein</p> <p>Comment: Wildfires are a major source of PAHs and metals. Does the San Diego Water Board know how wildfires affect the sediment loads? Are the models used in this project able to consider wildfires?</p>	<p>Response: Large wildfires occurred in the San Diego Region in October 2003 and October 2007. Storm water monitoring data for Chollas, Paleta, and Switzer Creeks were collected in two separate studies. The first study, in early 2006, monitored three events in February and March on North Chollas Creek, South Chollas Creek, Paleta Creek, and Switzer Creek (Schiff and Carter 2007). The second study in late 2009 through early 2010 had a larger scope and monitored storm water runoff from twelve land use sites and eleven larger catchment-scale sites (City of San Diego, 2010a, City of San Diego, 2010b). It is not likely that any effects from the most recent wildfires in the San Diego region were captured in the monitoring data collected for TMDL development.</p> <p>A special study would need to be conducted to determine if air deposition from wildfires has an effect on sediment loads. The Implementation Plan includes a provision for conducting special studies that will provide information to refine and improve the implementation of the TMDLs. Any findings from such a study may result in revising permit requirements, initiating additional enforcement actions, or revising this Basin Plan amendment.</p>
26.	<p>Unknown Commenter</p> <p>Comment: The model used to perform the linkage analysis seems very complex. Is it possible to run the scenarios for different combinations of pollutants?</p>	<p>Response: Yes, it is possible to simultaneously simulate different combinations of pollutants.</p>
27.	<p>Unknown Commenter</p> <p>Comment: Even though there is flexibility written in the TMDL implementation plan, the stakeholders still fear that they are taking an excessive load while other sources that may be negligent aren't given any allocation. The commenter asked if there is a mechanism for bringing those other stakeholders into sharing the load and to have them share in back-expenses.</p>	<p>Response: Sources that do not receive an allocation, effectively have been give an allocation of zero. A source without an allocation is not permitted to discharge any amount of chlordane, PAHs, or PCBs to receiving waters. The implementation plan includes the incorporation of TMDL-related requirements for permittees, such as industrial facilities, construction sites, and regulated small MS4s, that makes them responsible for demonstrating that they are not contributing to this impairment.</p>

III. Other CEQA-Related Comments

1.	<p>John Stump, CREAC Received via email on September 2, 2008</p>	
	<p>Comment: Our membership is currently very concerned about a possible PAH plume in the surface and ground waters of the Auburn Creek.</p> <p>This plume was identified in the EIR for Mary Fay Elementary school, built by the San Diego Unified School District.</p> <p>The size and extent of this plume was one of the reasons San Diego City Schools chose a different site than the old Standard Pipe industrial site, at 52nd and University in City Heights. As you are aware, groundwater depths, in this area, are between 1 to 3 feet and moving very rapidly. The site is being used as warehouse by the San Diego Mission for used goods.</p> <p>The possible PAH site is just North of the proposed Wightman Street park. The Wightman Park site was purchased by the City because of flooding and is currently in the CEQA process, at the legislative appeal level before San Diego City Council.</p> <p>We would appreciate it if this potential point source could be included in the scoping review.</p>	<p>Response: As indicated by the analysis presented in the Final Environmental Impact Report(EIR) for the proposed 52nd Street Area Elementary School (now Mary Lanyon Fay Elementary), the former San Diego Pipe and Supply facility was located in the footprint of Alternate Site 1 and Alternate Site 3. It appears that the Preferred Site was selected as the location of the school, which did not include the parcel that was previously the San Diego Pipe and Supply facility due to the presence of hazardous materials. The Case Closure Summaries from the Leaking Underground Fuel Storage Tank Program indicate that 2 underground storage tanks were removed and soils were left in place and buried in the tank excavation. The closure summaries, and EIR analysis, also indicate that they were both “soils only” cases and that groundwater was not impacted by the unauthorized release. The EIR indicates that the groundwater is greater than 100 feet below ground surface. Although the Case Closure Summaries did not state, the contaminated soils would have been covered with clean fill or paved over to isolate the contaminated soils.</p> <p>TMDLs specifically apply to surface waters. At this time, it seems unlikely that this source would impact surface waters. In the event that it becomes a source, the City of San Diego would be responsible for identifying the problem and taking corrective action of some kind to prevent an exceedance of their assigned WLA.</p>
2.	<p>San Diego Coastkeeper Received via email on September 9, 2008</p>	
	<p>Comment: Thank you for the notice of the workshops. I wanted to add Coastkeeper's voice to the call for the PAH plume issue to be added to the discussion for these meetings.</p>	<p>Response: See response to comment no. 1 in this section, above.</p>

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3.	<p>John Stump, CREAC Written comment received on September 15, 2008</p>	
	<p>Comment: The Chollas Restoration, Enhancement and Conservancy (CREAC) requests participation in the scoping for the CEQA study on Chollas Creek.</p> <p>CREAC would like to the San Diego Water Board to review and consider the following information, submitted on September 15, 2008, as it pertains to the Toxic Pollutants in Sediment TMDLs for the Mouths of Paleta, Chollas, and Switzer Creeks Project:</p> <ul style="list-style-type: none"> a. City of San Diego Memorandum regarding Metzger et al. vs. City of San Diego, dated March 8, 2001, b. Geotechnical Investigation for Oak Park Drainage Channel Flood Control Channel Improvements, prepared by GEOCON Inc., dated August 1993, c. Excerpt and exhibits from Deposition of Peter Yee on March 27, 2006 for the California Superior Court Case No. GIC 831229, Metzger it al. vs. City of San Diego, d. Figure 7 for Project No. 88-41-367-01, Fault Map with site location by Converse Environmental Consultants California undated, e. List of Technical Appendices, Section 4.6, and page 1 of Section 4.7 of the Draft Environmental Impact Report for 52nd Street Area Elementary School, and f. City of San Diego, Notice of Application for a Site Development Permit for Fox Canyon Sewer Repair in City Heights, date August 29, 2008. 	<p>Response: The submitted documents were reviewed and considered for the TMDL project. The San Diego Water Board thanks Mr. Stump for submitting the documents to accompany his comments.</p>

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4.	<p>John Stump, CREAC Written comment received on September 15, 2008</p>	
	<p>Comment: CREAC would like the San Diego Water Board to review and consider the following projects as they pertain to the Toxic Pollutants in Sediment TMDLs for the Mouths of Paleta, Chollas, and Switzer Creeks Project:</p> <ul style="list-style-type: none"> a. DTSC initial study reopening for the Webster Elementary School [Elm and 47th, San Diego 92102] Burn Ash biology and storm water study. b. Wightman Street Park construction in City Heights c. Fox Canyon Sewer Repair in City Heights at 3802 49th Street. Project 163044. d. Burn Ash subsidance and exposed burn ash at the Chinese Community Church [47th and Fairmount, Webster Community, San Diego 92102] e. Sunshine Beraradini Park CEQA Scoping. The proposed park, adjacent to the N Chollas Branch, is nearly 100 acres and contains known listed species and plants. f. Home Avenue Park CEQA Scoping. Home Avenue Park [Home and Euclid City Heights 92105] is along the Auburn Creek. g. San Diego Flood Plan for FEMA. The proposed Flood Plan fails to include the spring source headwaters of the Auburn Creek [University and Wightman, City Heights 92105. h. 52nd Street Elementary School [SDUSD 52nd and university, City Heights, CA 92105] this study identifies a PAH and Toxin plume at Auburn Creek headwaters at "Standard Pipe Industrial site. i. Flo Jo Elementary School EIR [SDUSD 43rd and Myrtle, City 	<p>Response: The San Diego Water Board thanks Mr. Stump for providing this list of projects from the Chollas Creek Watershed.</p> <p>The San Diego Water Board is the lead agency for this TMDL project, a Basin Plan amendment, and complies with CEQA as a Certified Regulatory Program. The scope of the environmental analysis is limited to an analysis of the reasonably foreseeable methods of compliance in meeting the TMDL allocations. This analysis is similar to a program level analysis. The statute specifically states that the agency shall not conduct a “project level analysis.”⁴ Rather, a project level analysis must be performed by the responsible parties that are required to implement the TMDLs.⁵ The actual environmental impacts will depend upon the compliance strategies selected by the responsible parties identified in the Technical Report.</p> <p>While these projects cannot be evaluated in the context of a project level environmental analysis, the San Diego Water Board has thoughtfully considered them as it has taken into account a reasonable range of environmental factors, economic factors, technical factors, population, geographic areas, and specific sites, as required.</p>

⁴ Public Resources Code section 21159(d)

⁵ Public Resources Code section 21159.2

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	<p>Heights 92105] this study is adjacent to the Lexington Creek which should drain to the Chollas Creek; but may have been diverted to the Switzer watershed by Caltrans.</p> <p>j. Chollas Landfill closure management and reuse should be carefully monitored as source point. For example the City recently installed more than a mile of zinc galvanized drainage for the landfill.</p> <p>k. Chollas Reservoir Lake relining and leakage. The Chollas Lake loses waters faster than predicted evaporation models. Water is suspected to travel through the closed Chollas land fill to Chollas Creek and its aquifer.</p> <p>l. Utility Franchise renewals with SDG&E and communications are scheduled for review and renewal during the current TMDL/WLA reduction periods. These utilities use or have used listed organics and metals for the TMDL transformer sites, service yards and utility poles all.</p>	
5.	<p>John Stump, CREAC Written comment received on September 15, 2008</p>	
	<p>Comment: Jurisdictions/CEQA lead Agency should require consistent studies and data collection methods for CEQA studies. Lead Agency studies should be consistent with Water Board standards.</p>	<p>Response: No new studies will be performed as part of the environmental analysis. The Water Board continues to make an effort to assure that monitoring projects and programs are conducted in a consistent manner, using standardized methods, by requiring SWAMP comparability, where appropriate.</p>
6.	<p>John Stump, CREAC Written comment received on September 15, 2008</p>	
	<p>Comment: The Lead Agency for any CEQA studies related to this Project should measure "flow" and annual loading using Water Board standards.</p>	<p>Response: No new studies will be performed by the San Diego Water Board as part of the environmental analysis.</p>

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7.	<p>John Stump, CREAC Written comment received on September 15, 2008</p> <p>Comment: CREAC requests that the Lead Agency's CEQA analysis must be required to respond to TMDL achievement standards/target as a focus. Mitigation measures must answer the question on how these mitigations will meet the TMDL target.</p>	<p>Response: The San Diego Water Board is the lead agency for this TMDL project, a Basin Plan amendment, and complies with CEQA as a Certified Regulatory Program. The scope of the environmental analysis is limited to an analysis of the reasonably foreseeable methods of compliance in meeting the TMDL allocations. This analysis, which is similar to a program level analysis, identifies broad mitigation approaches that could be considered at the project level. Project level analyses for specific projects would identify mitigation measures that are necessary to avoid or reduce significant adverse environmental impacts.</p>
8.	<p>John Stump, CREAC Written comment received on September 15, 2008</p> <p>Comment: CREAC requests that the San Diego Water Board's CEQA document includes jurisdiction sites adjacent to permitted (licensed) uses such as the following:</p> <ul style="list-style-type: none"> a. Closed landfills and burn ash sites, b. SDG&E service, stage and transformer sites, and c. Jurisdictions' usages - kennels, stables, cemeteries, garages, landfills. 	<p>Response: The scope of the environmental analysis for this project is limited to an analysis of the reasonably foreseeable methods of compliance in meeting the TMDL allocations. The Phase I MS4 permittees associated with these watersheds have been given WLAs. As they evaluate potential load reduction strategies and identify projects to comply with the WLAs, project level analyses would be expected to evaluate these types of sources, as required. These sources would be expected to be considered during a project level analysis.</p>
9.	<p>John Stump, CREAC Written comment received on September 15, 2008</p> <p>Comment: Please list and catalogue (1) all storm water diversions to sanitary sewers, and (2) the concentration and delivery of bilge and dewatering discharges to sanitary sewers, in the environmental documentation.</p>	<p>Response: TMDLs are specific to controlling sources of pollutants to surface waters. Storm water diversions to sanitary sewers are not considered to be pollutant sources to impaired surface waters. The Phase I MS4 permittees associated with these watersheds have been given WLAs. As they evaluate potential load reduction strategies and identify projects to comply with the WLAs, project level analyses would be expected to evaluate these types of sources, as required.</p>

IV. Other Comments Received on the Project

1.	<p>Rob Chichester, U.S. Navy Written comment dated October 29, 2007</p>	
	<p>Comment: It is the Navy's position that the 33% California regression model is the correct version that should be used in developing these TMDLs.</p>	<p>Response: The San Diego Water Board decided not to use the California regression model as the basis for numeric target determinations and thanks the U.S. Navy for its comment.</p>
2.	<p>John Stump, CREAC Written comment received on September 15, 2008</p>	
	<p>Comment: Any water quality testing studies for this Project must include measurements for personal care products (PCPs), PAHs, event mean concentrations (EMCs), chlordane, lindane, metals, and TSS.</p>	<p>Response: The monitoring requirements for this TMDL project are specific to the pollutants of interest, other parameters needed to calculate mass loading, and measurements needed for conducting the MLOE approach to interpret the Aquatic Life SQO. Other water quality monitoring requirements are more appropriately specified in WDRs/NPDES permits that are tailored to the type of permit (e.g., storm water, industrial storm water, etc.). The monitoring requirements identified in this TMDL project will be incorporated into appropriate permits in order to implement the TMDLs.</p>
3.	<p>John Stump, CREAC Written comment received on September 15, 2008</p>	
	<p>Comment: Please identify and monitor storm water diversions made by jurisdictions, which may have created hot spot concentrations or diverted water from one watershed to another.</p> <p>Examples include Caltrans roadwash diversion to Chollas Creek (North Beach) at Federal and I-805 overcrossing or contribute to meeting the TMDL targets on time. For example: "Project specific BMPs are required because they will contribute to chlordane target reduction of 80% by 2012".</p>	<p>Response: The TMDL implementation plan creates a framework for how the TMDLs will be implemented and includes actions such as revising and reissuing permits. Once the TMDL/WLAs are incorporated into those permits, the permitted dischargers are then required to take actions (e.g. structural BMP installation) and monitor to show compliance. The type of monitoring the commenter is requesting would be performed in the context of permit compliance. For instance, if a permitted discharge is exceeding their WLA/WQBEL and determines that the exceedance is being caused by storm water diversion, then they would report and take action to correct the exceedance.</p> <p>The San Diego Water Board is prohibited from specifying the manner of compliance with its regulations.⁶</p>

⁶ Pursuant to Water Code section 13360

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4.	<p>John Stump, CREAC Written comment received on September 15, 2008</p>	
	<p>Comment: CREAC requests that the San Diego Water Board use atmospheric data collected in the study watersheds rather than data collected from Lindbergh Field. It seems the Air Quality sampling site in Barrio Logan or at the Naval Station would be more appropriate. Alternately, the data should be verified.</p>	<p>Response: The watershed model required input of hourly precipitation data. Lindburgh Field station was found to be the most representative weather station with hourly data for the project watersheds (Paleta Creek, Chollas Creek, Switzer Creek, B St/Broadway Piers, and Downtown Anchorage watersheds). The station also has long-term hourly wind speed, cloud cover, temperature, and dew point data.</p> <p>Localized data collected during two sampling efforts in the Chollas watershed were used to augment the data from Lindburgh Field station. This data included hourly rainfall data obtained from SCCWRP for February 16 to May 8, 2006 (Schiff and Carter 2007) and from the City of San Diego for December 5, 2009 to January 12, 2010 (City of San Diego 2010a; City of San Diego 2010b).</p> <p>In addition, SCCWRP research on atmospheric deposition and gas exchange between the water surface and atmosphere was conducted at a sample site located in San Diego Bay at the mouth of Chollas Creek. The study results were used in determining load allocations attributed to atmospheric deposition (Sabin et al. 2010; Schiff 2011).</p>
5.	<p>John Stump, CREAC Written comment received on September 15, 2008</p>	
	<p>Comment: CREAC supports that allocations should be assigned based on their measured TMDL start loads. For example, Chollas Creek TMDL at Lemon Grove boundary. Also each major branch should have an Allocation baseline measure and goal.</p>	<p>Response: The model assigned the total load (TMDL) from each watershed into separate WLAs for each specific jurisdiction or right-of-way (for Caltrans). This was based on land use area data and jurisdictional boundary locations.</p>

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6.	<p>John Stump, CREAC Written comment received on September 15, 2008</p>	<p>Comment: CREAC supports that the margin of safety (MOS) should be formulated based on the best modeled possible decreased assumption in any given period. The MOS should not be allocated away from any single jurisdiction's modeled goal until after that jurisdiction has obtained 80% of its allocation. The last 5 pounds are the hardest to lose.</p> <p>Response: A margin of safety is incorporated into a TMDL to account for uncertainty in developing the relationship between pollutant discharges and water quality impacts (U.S. EPA 1991). The margin of safety can be incorporated in the TMDL either explicitly or implicitly (U.S. EPA 2000a). Reserving a portion of the loading capacity provides an explicit margin of safety. Whereas, making and documenting conservative assumptions used in the TMDL analysis provides an implicit margin of safety. In either case, the purpose of the margin of safety is the same: to ensure that the beneficial uses currently impaired are restored, given the uncertainties in developing the TMDL.</p> <p>This TMDL project uses both implicit and explicit margins of safety. The 5 and 20 percent margins of safety is essentially reserved and is not available for WLA or LA, which is more protective of the impaired waterbody because the assumption makes the available load allocations smaller.</p>
7.	<p>John Stump, CREAC Written comment received on September 15, 2008</p> <p>Comment: Please clarify how other non-MS4 jurisdictions, schools, colleges, universities, and hospitals are going to be included as sources in the Technical TMDL Report?</p> <p>Please consider the following:</p> <p>The San Diego Unified School District (SDUSD) is one of the largest property owners and operators.</p> <p>SDUSD is the largest bus company in San Diego County, bigger than MTDB in ridership, fuel and vehicles.</p> <p>Other than streets, SDUSD probably has the most impermeable surfaces and building roofs in the Chollas Creek watershed.</p> <p>The San Diego Zoo may be one of the largest single properties with exclusive uses.</p>	<p>Response: Phase I MS4s, Caltrans, and the U.S. Navy were identified as requiring load reductions to achieve and meet their WLAs. The linkage analysis identified urban land uses as the most significant controllable point sources causing or contributing to the toxic pollutant impairments during wet and dry weather conditions in all the watersheds addressed by these TMDLs. Some urban land uses within the Phase I MS4 are associated with non-traditional small MS4s, which are governmental facilities such as military bases, public campuses, and hospital complexes.</p> <p>Regulated Small MS4s, as well as industrial facilities and construction sites, are required to enroll in state-wide general NPDES permits. These sources have been named as responsible parties and TMDL implementation requirements will be incorporated into existing general NPDES permits.⁷</p>

⁷ State Water Board Order Nos. 97-03-DWQ (Industrial), 2009-0009-DWQ (Construction), 2003-0005-DWQ (Small MS4s), or subsequent orders.

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8.	John Stump, CREAC Written comment received on September 15, 2008	
	Comment: If creek restoration is considered as an implementation action, it should include remediation of legacy sources and not just habitat restoration.	Response: Creek restoration is not being considered as an implementation action at this time. A special study will be required to characterize the contributing load of PAHs, PCBs, and chlordanes from the tidally-influenced portion of each of the three watersheds at the sub-watershed level. It is possible that remediation of contaminated sediment within the creek itself may be needed, depending on the findings of this or other special studies. Creek restoration may be a consideration at that time.
9.	John Stump, CREAC Written comment received on September 15, 2008	
	Comment: All "Road" and "Park" projects in the three watersheds should be given interim and final waste load allocations.	Response: Road and park projects are already regulated under various NPDES permits. The responsibility for oversight and source control of these projects is with the regulated discharger. These types of individual projects will not receive individual WLAs. In large part, these projects are expected to be within the larger Phase I MS4 permit, which already includes requirements for source control of development projects. Additionally, each Phase I MS4 jurisdiction is receiving a WLA and it is in their best interest to prevent new sources from contributing to the waste load.
10.	John Stump, CREAC Oral comment received on September 15, 2008	
	Comment: Why was Lindberg Field meteorological data station used in the model rather than data from a station further south, such as Barrio Logan?	Response: See response to comment no. 4 of this section, above.
11.	John Stump, CREAC Oral comment received on September 15, 2008	
	Comment: SDGE does not remove soils around the telephones when they remove or replace them. Please include telephone poles and the surrounding soil as potential PAH sources in all watersheds.	Response: The discussion in the Source Assessment, Section 5 of this draft Technical Report, includes telephone poles as a potential PAH source.
12.	John Stump, CREAC Oral comment received on September 15, 2008	
	Comment: The Convention Center discharges near the mouth of Switzer Creek. Please include dewatering discharges as a source of PAHs in the Switzer Creek TMDL.	Response: Section 5.6.2 of the draft Technical Report includes a discussion about the San Diego Convention Center Groundwater Extraction and Treatment System.

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13.	<p>John Stump, CREAC Oral comment received on September 15, 2008</p>	
	<p>Comment: Caltrans should be considered as a potential source for all contaminants.</p>	<p>Response: The discussion in the Source Assessment, Section 5 of this draft Technical Report, includes an assessment of Caltrans as a source of pollutants to all three waterbodies. Caltrans has been named as a responsible party and has been assigned WLAs.</p>
14.	<p>Gabe Solmer, San Diego Coastkeeper Oral comment received on September 15, 2008</p>	
	<p>Comment: What are the assumptions for the Margin of Safety?</p>	<p>Response: Both implicit and explicit margins of safety are being applied to these TMDLs. The rationale, including a list of assumptions, can be found in Section 7.7 of the draft Technical Report.</p>
15.	<p>Ruth Kolb, City of San Diego Oral comment received September 15, 2008</p>	
	<p>Comment: Who should be involved in resolving atmospheric deposition issues?</p>	<p>Response: The Air Resources Board and the local Air Pollution Control District are the appropriate agencies that regulate air pollution in California.</p>
16.	<p>Ruth Kolb, City of San Diego Oral comment received September 15, 2008</p>	
	<p>Comment: The City of San Diego requests that the San Diego Water Board develop TMDLs for all listings in an integrated watershed approach, rather than just at the mouths of the Creeks.</p>	<p>Response: An integrated watershed approach to addressing impairments is an approach that the San Diego Water Board will pursue for future projects. This project was originally conceived to be part of a series of projects addressing 5 toxic hot spots in San Diego Bay. The project now includes 3 of those projects. The Cleanup and Abatement Order No. R9-2011-0001 addresses the Shipyard Sediment Site and another TMDL project will address the toxic hot spot at B Street/Broadway Piers and the Downtown Anchorage site in the future.</p>
17.	<p>Ruth Kolb, City of San Diego Oral comment received September 15, 2008</p>	
	<p>Comment: Small municipal separate storm sewer systems (NPDES phase 2 dischargers) should be identified as sources.</p>	<p>Response: Small MS4s have been included in the discussion in the Source Assessment and identified as responsible parties in the draft Technical Report.</p>

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18.	Hiram Sarabia, U.C. San Diego Oral comment received on September 15, 2008	
	Comment: Is sediment loading affecting the PCB loading numbers?	Response: The organic pollutants identified for TMDL development in this project are associated with sediment. The modeling system used to determine the TMDLs effectively models flow and transport of sediment from the watershed. Pollutant concentrations are used in the model to predict the pollutant loading to the receiving waters (i.e., creek mouth areas). Sediment loading is directly related to the pollutant loading results.
19.	Bart Chadwick, U.S. Navy Oral comment received on September 15, 2008	
	Comment: What was the reference document of toxic boundary conditions?	Response: The reference document used the toxic boundary conditions was: Katz, C.N. 1998. Seawater polynuclear aromatic hydrocarbons and copper in San Diego Bay. Technical Report 1768. SPAWAR Systems Center San Diego The process used to determine the toxics concentrations used for the boundary cells is discussed in section 4.2.3.1 of the Receiving Water Model Configuration and Evaluation for the San Diego Bay Toxic Pollutants TMDLs (Appendix D of this Technical Report).
20.	Bart Chadwick, U.S. Navy Oral comment received on September 15, 2008	
	Comment: Why would PCB sediment concentrations decrease over time if PCB values are based on detection limits?	Response: Sediment bed concentration was initialized to the numeric target in the receiving water model considering future sediment remediation activities that would be necessary to address these TMDLs. In addition, watershed loading was estimated based on modeled flow and half the detection limit for PCB concentration, based on available watershed monitoring data that did not exceed the laboratory detection limit. The resulting modeling analysis indicates PCB loading from the watershed would not sustain the bed concentration at the numeric target and the concentration would decrease over time. PCB sediment concentrations increase when the watershed load contribution is sufficiently high enough to result in an increasing bed concentration.

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21.	<p>Bart Chadwick, U.S. Navy Oral comment received on September 15, 2008</p> <p>Comment: Will the San Diego Water Board be asking for PCB load reductions? If load reductions are not required, why is the San Diego Water Board proceeding with development of a TMDL for PCBs?</p>	<p>Response: See response to comment No. 15. in section II, above.</p>
22.	<p>Bart Chadwick, U.S. Navy Oral comment received on September 15, 2008</p> <p>Comment: How realistic is it for stakeholders to meet the load allocations for PAHs?</p>	<p>Response: Controlling discharges laden with PAHs will present a challenge. Naturally occurring in petroleum-based lubricating oils and as byproducts of fuel combustion PAHs have a widespread presence in highly urbanized environments such as these three watersheds. These pollutants, particularly the more environmentally problematic high molecular weight PAHs, have a tendency to bind to soil particles (ATSDR 1994). It will be important to effectively manage sediment transport in order to protect the local waterways.</p> <p>There are a number of proven practices and widely available technologies that provide erosion and sediment control. Commonly used sediment control practices include using fiber rolls and geotextile mats to keep erodible soils in place and installing storm drain inlet protection to protect waterways. Treatment control BMPs can provide medium to high removal efficiencies, including infiltration trenches, basins, bioretention, swales, buffer strips, media filters, and drain inserts (CASQA 2003a).</p> <p>Additionally, the TMDL project includes a generous compliance schedule that is phased in over 20 years. This will allow for time to implement BMPs, to work on solutions to the complex issues related to air deposition, and for technological improvements in motor vehicle fuel sources and emission technologies to develop.</p>

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23.	Bart Chadwick, U.S. Navy Oral comment received on September 15, 2008	
	Comment: The San Diego Water Board should consider that the adjacent shipyards and other areas could be influencing the mouths of the creeks.	Response: All potential sources were included in the modeling analysis through representation in the watershed or receiving water models. Shipyard areas and other potential sources within the drainage area for each impaired creek mouth were included in the watershed model to estimate pollutant load contributions. Bay sources, including initial sediment bed concentrations that were set based on numeric target levels, are included in the receiving water models.
24.	Bart Chadwick, U.S. Navy Oral comment received on September 15, 2008	
	Comment: Please identify the compliance points for each TMDL.	Response: The Implementation Plan in the draft Technical Report provides information relating to how compliance will be achieved. This includes a phased load reduction schedule for the mass-based TMDLs over a 20 year period, TMDL requirements that will be incorporated into applicable permits (including Appendices K, L, and M), and a TMDL compliance schedule.
25.	Ed Kimura, Sierra Club Oral comment received on September 15, 2008	
	Comment: Why did the San Diego Water Board only use one sediment type in the modeling?	Response: TSS concentration was divided among the three modeled sediment classes in the EFDC model (i.e., clay, silt, and sand). Section 4.2.3.2 of Receiving Water Model Configuration and Evaluation for the San Diego Bay Toxic Pollutants TMDLs Report (Appendix D) discusses the sediment ratios used in the models for each creek mouth.
26.	Unknown Commenter Oral comment received on September 15, 2008	
	Comment: Is it possible that there are PCB sources that are not accounted for in the model?	Response: Yes. The data sets used for the model analysis were collected at monitoring stations above the tidal prism. As a result of this, the San Diego Water Board has addressed this potential by incorporating an explicit MOS to account for this uncertainty and by including a requirement in the Implementation Plan to conduct a special study to characterize the contributing load of PAHs, PCBs, and chlordane from the tidally-influenced portion of each of the three watersheds. If the study identifies any new sources, San Diego Water Board can exercise several options, including but not limited to issuance of investigative orders, new waste discharge requirements, or revision of existing waste discharge requirements.

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27.	<p>Ruth Kolb, City of San Diego Received via email on October 1, 2008</p>	<p>Comment: The Port of San Diego dredged the mouth of Switzer in the last 5 to 6 years and the U.S. Navy dredged Chollas Creek in 1997. How are the past dredging projects that likely removed legacy pollutant-contaminated sediment accounted for in the model?</p> <p>Response: These past maintenance dredging projects do not affect the modeling used for TMDL development. The modeling predicts whether the watershed loading will cause the sediment in the mouth area to exceed the numeric target. This approach requires an assumption that the sediment in the mouth area is already at or below the numeric target. The existing sediment concentrations were taken into consideration with respect to the numeric targets development and in the sediment remediation options and cleanup levels.</p> <p>The Port of San Diego's dredge project for Tenth Avenue Marine Terminal was conducted in 2002. The Phase I study took place in 2003 and reported elevated PCBs and chlordanes, toxicity to amphipods, and mixed habitat degradation.</p> <p>The U.S. Navy dredged the mouth of Chollas in 1997. The Phase I study took place in 2001 and reported elevated PAHs, PCBs, and chlordanes, toxicity for amphipod survival and urchin embryo development, and benthic community values reflecting a 50 percent or greater loss of biodiversity.</p> <p>Please see Compilation of Sediment, Storm Water, and Water Quality Data Summaries for the Mouths of Paleta, Chollas, and Switzer Creeks in Appendix F.</p>
28.	<p>Ruth Kolb, City of San Diego Received via email on October 1, 2008</p>	<p>Comment: Is there any documentation on how long it takes the benthic community to re-establish itself once an area has been dredged?</p> <p>Response: There have been a number of studies that have looked at benthic recolonization after dredging in harbors and estuaries. Two such studies are referenced in the draft Technical Report as rationale for compliance with the Aquatic Life SQO after completion of sediment remediation. One study indicated that 6 months are required for a disturbed area to re-establish a sediment structure and a macrobenthic community similar to undisturbed areas (Guerra-Garcia et al. 2003). Another study reported that the system recovered to pre-dredging values after 1 year (Ceia et al. 2011). The TMDL Implementation Plan will allow for 2 years for the system to recover prior to requiring compliance with the SQO for benthic community protection.</p>

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29.	Ruth Kolb, City of San Diego Received via email on October 1, 2008	
	Comment: It appears that the model did not consider sediment transport from beyond the edge of the TMDL area, i.e., there is known sediment contamination just beyond the mouth of Chollas Creek at the Shipyard Sediment Site. Please verify whether this potential source was considered.	Response: With respect to the Shipyard Sediment Site, the potential for contamination coming from the Shipyards to Chollas Creek is remote. There are no new or ongoing discharges of pollutants coming from either of the shipyard facilities and the contaminated sediment will be removed to a level that will be protective of aquatic-dependent wildlife and human health. The Shipyard Sediment Site Cleanup and Abatement Order No. R9-2012-0024 was approved on March 14, 2012 and is proceeding.
30.	May Alsheikh, Caltrans Received via email on October 1, 2008	
	Comment: Caltrans does not oppose the assignment of one WLA for the mouth or a specific WLA for each source as long as Caltrans is assigned an appropriately representative load. For example, Caltrans should not be considered a source of chlordane or lindane since Caltrans has not used products containing these chemicals for over 20 years. Also these products were not detected in Caltrans' three year characterization Studies (2000-2003).	Response: The San Diego Water Board thanks Caltrans for it's comment. With respect to chlordane, Caltrans will receive a WLA (lindane has been delisted). Chlordane is persistent in the environment and can persist in some sediment and soils for more than 20 years (ATSDR 1994). Additionally, Southern California Coastal Waters Research Project found dry particle deposition of chlordane in the San Diego Bay airshed (Schiff 2011). Receiving no WLA would be equivalent to having a zero allocation. Any future discharge of measurable quantities of chlordane, whether from air deposition or the presence of legacy sediment concentrations in fill, would be subject to enforcement action.
31.	May Alsheikh, Caltrans Received via email on October 1, 2008	
	Comment: When land use GIS layers are used to determine the WLA, local/urban streets should be differentiated from any other land use within the local cities right of way so that the transportation layer in the model includes urban streets and freeways.	Response: The watershed models for Chollas, Paleta, and Switzer Creek watersheds were reconfigured in 2010 to include additional monitoring data were collected within each of the watersheds by the City of San Diego to improve the understanding of toxic pollutant concentrations and other water quality constituents within the creeks. Additionally, an updated land use dataset was used that enabled the model to distinguish road surfaces and highway right-of-ways.

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32.	<p>May Alsheikh, Caltrans Received via email on October 1, 2008</p>	<p>Comment: Caltrans believes that there is not sufficient data to understand the sediment toxicity problem or to accurately calculate the WLAs. The watershed model was developed using three data points for each pollutant and this is a significant cause for concern. The model was not calibrated or validated for the organic pollutants and without additional data these steps are not possible. We would suggest for the TMDL to be postponed until additional data can be collected by the Stakeholders. In addition, since this is a TMDL for sediment toxicity due to organic pollutants, development of a site specific objective (SSO) would be beneficial to evaluate the ability of the receiving waters to assimilate the pollutant.</p> <p>Response: Since the original watershed models were developed, additional monitoring data were collected within each of the watersheds by the City of San Diego to improve the understanding of toxic pollutant concentrations and other water quality constituents within the creeks. The contribution from different land use types and catchments was a primary focus of the recent monitoring studies. This information was used to update the watershed models, along with updated land use information (SANDAG 2009), to more accurately model flow and pollutant concentrations.</p> <p>The 2006 measured hydrology was used to calibrate the hydrology of the new land use parameters. Data collected from the land use catchments by the City of San Diego were used to calibrate the water quality portion of the model and the data from the larger catchment-scale sites were used for validation (City of San Diego 2010a).</p> <p>The project, with the primary focus on the modeling approach, was reviewed by two independent peer reviewers (see Appendix A of this draft Technical Report). One reviewer determined that the TMDL project is based upon sound scientific knowledge, methods, and practices. The second reviewer concluded that in general the TMDL project documentation was an impressive effort, especially with respect to the watershed and receiving water modeling. His primary concern was with the sparse data available for input into the receiving water model.</p> <p>Lastly, a site-specific objective is not needed for this project. The recently developed Aquatic Life SQO applies to these waterbodies. The SQO’s MLOE approach will be used to determine whether the beneficial uses are being met. Additionally, development of numeric targets for bioaccumulative pollutants using a risk assessment approach will assure that human health is protected.</p>
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33.	<p>May Alsheikh, Caltrans Received via email on October 1, 2008</p>	<p>Response: Atmospheric deposition is discussed in the Source Analysis in Section 5 in this draft Technical Report. LAs for direct deposition of chlordane to the water surface of each of the water bodies have been allocated (see Section 8.1.2).</p>
34.	<p>May Alsheikh, Caltrans Received via email on October 1, 2008</p> <p>Comment: Caltrans recommends that the San Diego Water Board pursue de-listing of PCBs since all samples collected were below the detection limit for this pollutant.</p>	<p>Response: Delisting of PCBs is not justified solely because PCB watershed storm water concentrations were not detected. Sediment concentrations remain elevated in the creek mouth sediments, which are impairing beneficial uses and are considered as a potential source to the greater San Diego Bay fish tissue impairment.</p> <p>The Mass Loading Stations, where the samples were collected, are above the tidal influence of the Bay. This information only reduces the source potential of those portions of the watersheds above the monitoring station for this pollutant. The segments of the creeks that are influenced by the tides will be investigated as part of the TMDL Implementation Plan and an appropriate action will be pursued that is based on the special study results.</p> <p>TMDLs are required to be calculated for the purpose of assuring beneficial use restoration. The fact that the watershed appears to be providing minimal PCB loads to the creek mouth areas allows the TMDL to set at the current loading value (0 percent reduction). The TMDL is then allocated to the sources, excluding the explicit margin of safety.</p>
35.	<p>May Alsheikh, Caltrans Received via email on October 1, 2008</p> <p>Comment: There's no current technology to efficiently remove the organic pollutants listed for this TMDL. Therefore, we request a similar implementation schedule as the dissolved metals for Chollas Creek TMDL to effectively address pollutants of concerns in this watershed with the most effective BMPs.</p>	<p>Response: The TMDLs will be phased in over 20 years. The compliance milestones are as follows:</p> <ol style="list-style-type: none"> 1. 25 percent reduction by year 5 2. 50 percent reduction by year 10 3. 75 percent reduction by year 15 4. 100 percent reduction by year 20 <p>The TMDL for Dissolved Copper, Lead, and Zinc in Chollas Creek also utilizes a 20 year compliance schedule.</p>

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36.	<p>Len Sinfield, U.S. Navy Received via email on October 6, 2008</p>	
	<p>Comment: The last dredging of the channel at the Mouth of Chollas Creek was completed in Jan 1997 and removed approximately 100,000 cubic yards of dredge spoils. Periodic maintenance dredging occurs every 10 to 15 years, depending upon the amount of rainfall (and drought). The Navy conducts hydrosurveys of the creek mouth once every three years. The last survey was in 2006 and the results indicated that dredging was not required yet. The next survey should be completed sometime this fiscal year (which started Wednesday Oct 1, 2008).</p> <p>If the new survey indicates that dredging is required, it could take 2 - 3 years of additional work (biological, NEPA, permitting, etc) before the dredging would occur. Dredging could potentially occur in 2011/2012, 2014/2015, or 2017/18, depending again on the amount of sediment transport and deposition.</p> <ol style="list-style-type: none"> 1. Since the current concentrations will be removed in the next dredging, what is the impact on the TMDL model? 2. How does it affect the Implementation Plan? 	<p>Response: While maintenance dredging may remove some of the most contaminated sediment, there are other areas within the TMDL project footprint that should be considered for remediation. Additionally, a maintenance dredging project is not consistent with Resolution No. 92-49 on its own merit, since navigation is its only purpose.</p> <p>The prospect of a maintenance dredging project occurring has no impact on the TMDL model. The receiving water model assumes that the sediment in San Diego Bay at the mouth of Chollas Creek has already been remediated to numeric target concentrations. The model runs then test whether discharges in the watershed will lead to an exceedance of the numeric targets over time, given a critical condition (3 consecutive high flow hydrologic year cycles). The primary purposes of the model are to determine the TMDLs and allocations for surface water discharges from the watershed, which will ultimately discharge into San Diego Bay. The remediation of the bay sediments is a separate, albeit related, issue. The Implementation Plan requires issuance of a cleanup and abatement order, pursuant to Water Code section 13304, to address the impairment caused by contaminated sediment in the mouth area of the creek.</p> <p>In response to the second question, the prospect of a maintenance dredging project occurring does not affect the Implementation plan. The Implementation Plan provides a framework for the Water Board to implement actions and includes a schedule for those actions to occur. TMDLs are not self-implementing or directly enforceable against pollutant sources. Other Water Board regulatory tools, programs, and authorities must be used to implement the TMDL pollutant reductions required to achieve water quality standards. The most effective authorities and programs used to implement the TMDLs will depend on the type of point source(s) of pollutants to be controlled in the watershed. Although it would be optimal to coordinate a maintenance dredging project and a sediment remediation project, the Implementation Plan is not dependent on the schedule of the maintenance dredging project.</p>

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37.	Ed Kimura, Sierra Club Written comment dated November 10, 2008	<p>Comment: Please provide the final version of Draft Phase II report (September 2005) for the Chollas and Paleta Creek. At the September 15 meeting staff indicated that a final version exists. The draft report summary recommended:</p> <ul style="list-style-type: none"> • Additional studies to provide more specificity to the toxicant identifications for the Chollas and Paleta Creek study areas. These tests would provide data that could be used to establish cleanup thresholds or interpret assessment data from other locations. • Toxicity studies that include body burdens. We recommend that bioaccumulation of PCB, chlordane, DDT, metals and other contaminants in fish that are not metabolized and consumed by humans. • The potential for unmeasured contaminants to cause toxicity in the study sites should be addressed through sediment fractionation studies. <p>Response: The Southern California Coastal Water Research Project (SCCWRP) has taken action to finalize the reports titled, <i>Temporal Assessment of Chemistry, Toxicity, and Benthic Communities in Sediments at Chollas Creek and Paleta Creek, San Diego Bay</i> (dated November 2011) and <i>Sediment Toxicity Identification Evaluation for the Mouths of Chollas and Paleta Creek, San Diego</i> (November 2011). No public comments were received since the draft were made available: presentation of draft findings at a publicly noticed workshop on January 18, 2005, electronic mailing notice soliciting comments on the Temporal Study, and availability of both reports on the project website since draft publication dates in 2005. Only the San Diego Water Board submitted minor comments on the two reports to SCCWRP, which have now been incorporated. Additionally, an internal review performed by SCCWRP identified some additional clerical errors that have been corrected.</p> <p>Both final reports are available on the project website: http://www.waterboards.ca.gov/sandiego/water_issues/programs/tmdls/sediment_toxicity.shtml</p> <p>The San Diego Water Board will not be performing any additional studies prior to TMDL adoption. Additional studies may be required during implementation of the TMDLs, as appropriate, and would be directed to responsible parties by investigative order (Water Code section 13267). The Toxicity Identification Evaluation conclusively identified non polar organic pollutants and developed TMDLs for the organic pollutants found at these sites.</p>
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38.	Ed Kimura, Sierra Club Written comment dated November 10, 2008	
	<p>Comment: Our review of the Draft Tetra Tech Receiving Water Model Configuration and Evaluation for the San Diego Bay Toxic Pollutants TMDL (Bay Model Report) reveals serious omissions and errors. Here are some examples:</p> <ol style="list-style-type: none"> 1. It fails to acknowledge that the monitoring data for the mouths of the Chollas and Paleta are surficial samples (Van Veen grabs). Presumably these data (referred as core data in the draft report) were used to characterize the contaminants of concern from the sediment surface to the base of the sediment. The report states that the EFDC model is capable of simulating any number of sediment bed layers. 2. Sediment Transport Model Calibration section 5.2 refers the reader to Appendix C for the simulated TSS results. Appendix C is the Time Variable Loading for the Mouth of Paleta Creek. Graphical TSS results are omitted. It is no wonder that the text notes discrepancies between the model predictions and the data given that are surficial samples and do not represent the actual bed sediment properties. 3. Toxic Model Calibration section 5.3 refers the reader to Appendix D, the Time Variable Loading for the Mouth of Chollas Creek. Results are again not shown. The discussion on page 20 notes that the results show a greater range than that predicted by the model. This is not surprising given the erroneous use of the surficial data. 4. Sensitivity to Watershed Loading Level section 6.5 figures are missing. The report erroneously refers to Appendix E, the Time Variable Loading Results the Mouths of Switzer Creek. 5. The results of the Temporal Response to Sediment Bed Toxicity section 6.6, in our view, are not credible because the model erroneously used surficial monitoring data. 	<p>Response:</p> <ol style="list-style-type: none"> 1. Only surficial data were available, therefore this information was used to represent the entire bed; however, this assumption would not have a significant influence on the model calibration and resulting TMDLs. Deep bed layers would not have a significant impact on surficial concentrations, in particular, since the models were developed based on setting the initial sediment bed concentration equal to the numeric targets (assuming sediment remediation down to these levels). Also, the models were run for a relatively short duration in order to examine the response in sediment concentration in the critical period for these TMDLs. 2. There appears to have been some error with the documents reviewed by this commenter. The original Technical TMDL Report prepared by Tetra Tech contained Appendices C, D, and E that contained Time Variable Loading Results for Paleta, Chollas, and Switzer creeks, respectively. The Bay Model Report, as currently posted on the website, appears to have the appropriate appendices as noted in the text of the report. See previous response in bullet no. 1 regarding surficial samples and bed concentration. 3. See previous response in bullet no. 2 regarding the reference to Appendix D. See previous response in bullet no. 1 regarding bed concentration data availability. Where data are limited, reasonable assumptions are used to represent the broader modeling domain and overcome data gaps. These issues are common in modeling studies and represent potential uncertainty in the results, rather than erroneous use of available data. 4. See previous response in bullet no. 2 regarding the reference to Appendix E. 5. See previous response in bullet no. 1 regarding surficial bed data availability and modeling uncertainty.

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39.	Ed Kimura, Sierra Club Written comment dated November 10, 2008	<p>Comment: Section 6.7 of the Bay Model Report [Appendix D of the draft Technical Report] discusses the TMDL development strategy. The Time Variable loading results given in Appendix C, D and E are not discussed. It appears that these results were to present the TMDLs needed to attain the numeric targets for the contaminants of concern. Because the model used surficial data the results are not credible. Consider Appendix D, Figure D-1 is the time variable loading for PCB, a legacy contaminant. It shows that after approximately 3 years the PCB decreases to the numeric value because there is no loading from the watershed. If this were true, then according to this figure the PCB today would be at the numeric limit since the data used were measured in 2001, seven years ago. It is reasonable to assume that the PCB sources in the watershed became a legacy contaminant some at some time prior to 2001. If this occurred in 1998, the PCB would be at the numeric limit in 2001. This indicates the importance of sediment core samples (including chemistry, grain size, total organic carbon) to obtain the mass loading at the mouths of the Chollas and Paleta Creek. Transport of the not only the legacy contaminants but also other potential contaminants of concern should be used in the modeling.</p> <p>Response: See response to bullet no. 1 of comment no. 38 regarding surficial bed data availability and modeling uncertainty. Also, legacy sediment contamination was addressed through using initial sediment bed concentrations that were set equal to the numeric targets, which assumes sediment remediation down to these levels based on future bay cleanup activities. The modeling analysis and TMDLs focus on the watershed contribution and pollutant reductions needed to address these loads.</p>
40.	Ed Kimura, Sierra Club Written comment dated November 10, 2008	<p>Comment: Core samples that provide a profile of the constituents of concern are one of the essential actions to determine the remediation plan. Remediation will need to provide a healthy sediment bed environment that restores and protects the beneficial uses. That is one reason why I objected to the use of the Southern California LRM to obtain the numeric targets for the contaminants of concern. This is a tall order and one that is still a topic for the State Water Resources Control Board SQO effort. I recommend that Chris Beegan at the SWRCB be consulted on this issue.</p> <p>Response: The Implementation Plan includes a requirement to remediate the contaminated sediments in the three creek mouth areas to levels that are at or below the numeric targets. As mentioned in the response to comment no. 17 in Section II, above, numeric sediment quality targets have been developed using the MLOE approach of the Aquatic Life SQO with the express purpose of restoring sediment quality that will support a healthy ecosystem. A current sediment characterization will be needed to complete the analysis required by State Water Board Resolution No. 92-49 in the issuance of a Cleanup and Abatement Order. California regulations require that the San Diego Water Board consider the potential for health risks caused by human exposure to waste constituents, and the potential damage to wildlife caused by exposure to waste constituents.</p> <p>The Southern California LRM is no longer being used as the basis for numeric targets.</p>

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41.	Ed Kimura, Sierra Club Written comment dated November 10, 2008	
	<p>Comment: The TMDL fails to address the bioaccumulation of contaminants that are harmful to human health as required by the recently adopted Sediment Quality Objectives. The narrative requirement Section IV. Sediment Quality Objectives Part B, Human Health states, "Pollutants shall not be present at levels that will bioaccumulate in aquatic life to levels that are harmful to human health."</p>	<p>Response: See response to comment no. 17 in Section II, above.</p>
42.	Lisa O'Neal, Brown & Winters Received via email on December 12, 2008	
	<p>Comment: What has changed that would cause the possible delisting of lindane for Switzer Creek on the 2008 List Update? Does this mean that the proposed lindane TMDL for Switzer Creek will also be dropped?</p>	<p>Response: During the 2002 303(d) List Update, State Board listed specific pollutants that were assumed to be causing the toxicity and degraded benthic community impairment at the site. According to the fact sheets prepared for the listings for "San Diego Bay Shoreline, near Switzer Creek", the data that was used to assess the water quality was the Bay Protection Toxic Cleanup Program (BPTCP). One of 18 samples exceeded the lindane water quality objective. The one sample that exceeded the objective was recorded at 8.2 µg/kg.</p> <p>The San Diego Water Board has determined that the single elevated value should be treated as an outlier since all of the other lindane values were reported as non-detections. Additionally, subsequent sediment sampling that occurred in 2003 and 2004 during the Phase I and Phase II studies for Switzer Creek reported no detectable concentrations of lindane. Furthermore, toxicity identification evaluations conducted in 2004 on samples collected at the mouth of Switzer Creek indicated that chlordane is the most likely pesticide that contributes to the sediment toxicity in that area.</p> <p>The San Diego Water Board believes that the listing of lindane as a direct cause of impairment at the mouth of Switzer Creek was in error and has delisted lindane for the San Diego Bay Shoreline, near Switzer Creek in the Clean Water Act Section 305(b) and 303(d) 2008 Integrated Report for the San Diego Region, approved on December 16, 2009, and approved by the State Water Board in the California 2010 Integrated Report on August 6, 2010. Therefore, the San Diego Water Board has developed proposed TMDLs for PAHs, PCBs, and chlordane; however, a TMDL for lindane will not be developed.</p>