

**City of Los Angeles (Bureau of Sanitation) Additional Comment Summary and Responses
Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants TMDLs**

City of Los Angeles (Bureau of Sanitation) Technical Comment Matrix

Table 1. Comments and Responses

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A1	BPA pg 2	There should not be any numeric water targets for toxicity, metals and organics in water column since no water body was listed in 1998, 2006 and 2008/2010 303(d) impaired water body list for water column.	Impairments exist in the water column in the Dominguez Channel freshwater for toxicity, copper, lead and zinc.
A2	BPA pg 2	The California Toxics Rule (CTR) establishes hardness adjusted dissolved criteria for copper, lead, and zinc. By selecting a singular hardness and using the total fraction to establish a TMDL target the waterbody could meet the dissolved CTR criteria but not meet the TMDL target and corresponding allocation. As the goal of the TMDL is to meet the criteria protective of the corresponding beneficial use, the TMDL target should be set as the dissolved hardness dependent equation rather than a singular total target. The need to set allocations based on total metals is understood, and would more appropriately be done in the allocations section of the TMDL.	See response to Comment 21.1 in the public comments response document.
A3	BPA pg 3	The proposed wet weather metals translator is based on the data collected between 2002 and 2010. However, interim allocations presented in the BPA on Page 10 are based on data collected between 2006 and 2010. The evaluation of data for the use in calculating targets and allocations should be consistent. The Bureau requests that the more recent data (2006-2010) be utilized to calculate the translators.	See response to Comment 21.4 in the public comments response document.
A4	BPA pg 3	USEPA's 1996 Metals Translator Guidance states that data pairs should be discarded if both the dissolved and total fractions are not detected above the detection limit. However, as presented on page 18 of the 1996 Guidance, for cases where only the dissolved concentration is non-detect, the dissolved concentration may be assumed to	See response to Comment 21.4 in the public comments response document.

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		<p>be one-half the detection limit for the purpose of calculating the fraction dissolved. Metals data were obtained from USEPA and reviewed. Of the 29 samples analyzed for lead, all 29 detected total lead and 21 detected dissolved lead. None of the 8 samples (almost 30% of the available data) were considered in the calculation of the lead translator. When these data are considered using USEPA guidance to set the non-detect concentrations at one-half the detection, the acute translator (90th percentile of fraction dissolved) would be 0.662 using the data from January 2002 to January 2010 and 0.232 for data from 2006-2010. The Bureau requests that the translator be calculated using the non-detect data for dissolved lead per USEPA guidance and that only the more recent data (2006-2010) be utilized.</p>	
A5	BPA pg 3-4	<p>The BPA states:</p> <p>“Targets based on new toxicity criteria that achieve the narrative Toxicity objective of Chapter 3 of this Basin Plan may substitute for the TUC of 1, when those new criteria are adopted and in effect.”</p> <p>Currently, there is a draft Statewide Toxicity Policy – Draft Policy for Toxicity Assessment and January 21, 2011. The Draft Toxicity Policy is unclear in its applicability to stormwater discharges, includes nominal separate stormwater provisions that are predicated on cross-references to the regulation of traditional point source discharges (i.e., wastewater dischargers), and states that the intent of the Policy is not to require numeric effluent limits yet grants Regional Boards discretion to apply numeric effluent limits consistent with the provisions developed for wastewater dischargers. If the Draft Toxicity Policy were adopted without revision, the discretion provided to the Regional Board would require an interpretation of the Policy as it pertains to stormwater dischargers and would therefore warrant a Basin Plan Amendment in order to revise the water column toxicity target. The TMDL already includes an explicit reopener to reconsider targets, WLAs, and LAs. It is anticipated that the new toxicity policy will be established by the State Water Resources Control Board prior to the TMDL reopener. Therefore the Bureau requests that the language in the TMDL be modified as follows (additions in bold;</p>	<p>Staff find the BPA language, as presented, is correct. The narrative toxicity objective of the Basin Plan is not anticipated to change.</p>

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		<p>deletions in strikeout text):</p> <p>Targets based on new toxicity criteria that achieve the narrative Toxicity objective of Chapter 3 of this Basin Plan may substitute for the TUC of 1, when those new criteria are adopted and in effect. If a Statewide toxicity policy is established subsequent to this TMDL, revision to the 1 TUC target will be considered during the Regional Board’s reconsideration of targets, WLAs, and LAs.</p>	
A6	BPA pg4	<p>No one sediment quality guideline is endorsed for use by the State’s 303(d) listing policy. It is misleading to state that the sediment quality guidelines of Long and MacDonald (Long et al., 1995; MacDonald et al., 2000) are specifically recommended over any other sediment quality guideline. The listing policy provides requirements for acceptable guidelines. Therefore, the Bureau requests that the first sentence under Sediment Targets be modified to as follows:</p> <p>“...and the sediment quality guidelines of Long and Arch ET&C, which are recommended by acceptable guidelines per the State Listing Policy.”</p>	Staff find the BPA language, as presented, is sufficient.
A7	BPA pg4	<p>The text appropriately notes that the TMDL anticipates revisions to the sediment quality targets. Such revisions will result from the implementation of the Part 1 sediment quality objectives (SQOs) by conducting stressor identification and developing site-specific sediment quality values. These revisions may include the addition of chemicals not currently identified, the deletion of chemicals currently identified, or revision to the concentrations for chemicals already identified. Therefore, the Bureau requests a modification to the last sentence under Sediment Targets for clarity:</p> <p>“This TMDL anticipates that revisions, additions, or deletions to specific sediment quality targets may be determined by based upon the results of stressor identification and development of site-specific sediment quality values.”</p> <p>Additionally, the Bureau requests that the following language be incorporated into</p>	Staff find the BPA language, as presented, is sufficient.

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		<p>the table of sediment targets as a footnote associated with header for ERLs:</p> <p>“Revisions, additions, and deletions to the ERL-based targets are anticipated based upon the results of stressor identification and development of site-specific sediment quality values.”</p>	
A8	BPA pg4	<p>The use of ERLs and TECs as sediment numeric targets in the TMDL is inappropriate because there is no relationship between ERLs (or TECs) and the threshold point of toxicity, and the exceedance of an ERL (or TECs) as the single line of evidence does not necessarily indicate impairment of beneficial uses. A more appropriate approach would be to adopt a phased TMDL and set appropriate targets and allocations based on the results of implementing the State’s sediment quality objective and stressor ID process.</p>	<p>See response to Comment 20.1 in the public comments response document.</p>
A9	BPA pg5	<p>The BPA appropriately includes targets based upon the Part 1 SQOs. The following modifications to the first sentence of Page 5 of the BPA are requested for clarity: “In addition, the categories designated in the SQOs Part 1 as Unimpacted and Likely Unimpacted by the interpretation and integration of multiple lines of evidence are the applicable numeric targets for sediment quality, as they directly consider sediment chemistry, shall be considered as the protective narrative objective sediment toxicity, and benthic community effects. The thresholds established in the SQOs Part 1 are based on statistical significance and magnitude of the effect. Therefore, this TMDL implicitly includes sediment toxicity and benthic community targets by use of the SQO Part 1. Where sediment quality is determined to be Unimpacted or Likely Unimpacted by the integration of multiple lines of evidence consistent with the Part 1 SQOs but sediment chemistry values exceed the ERL-based sediment chemistry targets established by this TMDL, such sediments will be determined as meeting the TMDL numeric targets.</p>	<p>To develop a TMDL, it is necessary to translate the narrative objectives in the Basin Plan and the lines of evidence in the SQOs into numeric targets that represent attainment of applicable numeric and narrative water quality standards. Staff find the BPA language, as presented, is sufficient.</p>
A10	BPA pg5	<p>The Bureau fully supports the selection of fish tissue targets as the appropriate media for the protection of human health. However, the fish tissue targets should be based</p>	<p>See response to Comment 20.3 in the public comments response document.</p>

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		<p>on Office of Environmental Health Hazard Assessment’s Advisory Tissue Levels (ATLs) not the Fish Contaminant Goals (FCGs). FCGs and ATLs were recently developed by OEHHA. The FCGs prevent consumers from being exposed to more than the daily reference dose for non-carcinogens or to a risk level greater than 1×10^{-6} for carcinogens. OEHHA’s final report states: “FCGs are based solely on exposure to each individual contaminant, without regard to economic considerations, technical feasibility, or the counterbalancing benefit of fish consumption.” ATLs take into account the benefits of fish consumption and are designed to prevent consumers from being exposed to more than the average daily dose for non-carcinogens or to a risk level greater than 1×10^{-4} for carcinogens. OEHHA’s final report states:</p> <p>“The use of ATLs still confers no significant health risk to individuals consuming sport fish in the quantities shown over a lifetime, while encouraging consumption of fish that can be eaten in quantities likely to provide significant health benefits and discouraging consumption of fish that, because of contaminant concentrations, should not be eaten or cannot be recommended in amounts suggested for improving overall health (i.e., 8 ounces total, prior to cooking, per week).”</p> <p>Additionally, both the FCGs and the ATLs assume that a consumer (i.e., an individual) will consume a certain serving size per week over a lifetime, which was assumed to be 30 years over a 70 year lifespan. Therefore, an individual would need to eat at least one 8 oz. serving of fish with concentrations greater than the FCGs or the ATLs every week, for 30 years, in order to be at risk of accumulating contaminants to levels that would be harmful to human health.</p> <p>Further, by using the FCGs as a TMDL target, the Regional Board is establishing a contradictory public message from OEHHA on the safety of consumption of fish. Using DDT for example, if fish have DDT concentrations equivalent to 400 ug/Kg wet weight, the Regional Board would require substantial reductions in order to meet</p>	<p>In addition, see response to Comment 36.4 in the public comments response document.</p>

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		<p>the FCGs of 21 ug/Kg wet weight in order to protect human health. However, based on ATLS, OEHHA would determine that fish containing 400 ug/Kg wet weight would be safe for consumers to eat the same serving size not only once per week, but three times per week, for 30 years. OEHHA would encourage the same consumer to eat one serving of fish per week for 30 years for fish containing up to 2,100 ug/Kg wet weight. Therefore, the Regional Board would tell the public that fish are not safe to eat from the Greater Harbor Waters and Dominguez Channel Estuary while OEHHA would <i>encourage</i> the public to eat fish from the same waters.</p> <p>Using the FCGs instead of the ATLS is a very conservative selection for fish tissue targets for the protection of human health as there are orders of magnitude differences in tissue concentrations between the FCGs and the ATLS, yet the use of ATLS confers no significant health risk to individuals over a lifetime. As fish tissue targets most directly and appropriately assess the risk to human health, the use of FCGs instead of the ATLS therefore further supports the removal of the sediment-based numeric targets. As such, the Bureau requests that the fish tissue targets be based on the ATLS.</p>	
A11	BPA pg5	<p>The Staff Report provides strong support and justification for the selection of fish tissue as the media for numeric targets to protect human health, including:</p> <ul style="list-style-type: none"> • Fish tissue targets account for uncertainty in the relationship between pollutant loadings and beneficial use effects • Fish tissue targets directly assess potential human impacts from the consumption of contaminated fish or other aquatic organisms • Fish tissue targets allow the TMDL analysis to more completely use site-specific data, consistent with 40 CFR 130.7(c)(1)(i) <p>The Bureau fully supports the selection of fish tissue targets as the appropriate media for the protection of human health. However, the Staff Report does not provide a rationale for the additional selection of sediment targets for the bioaccumulative compounds. Sediment targets are not necessary as the targets for the bioaccumulative compounds can be solely based on fish tissue concentrations. As TMDL targets</p>	<p>The biota-sediment accumulation factor (BSAF) accounts for the sediment concentration, the associated food web and the desired fish tissue level to protect wildlife or human health consumption. The current development of Sediment Quality Plan – Part 2 – Indirect Effects is using a foodweb spreadsheet model to determine sediment concentrations (BSAFs) that correspond to specific fish tissue levels. For DDT, chlordane and dieldrin, the ERL value is lower and more protective than BSAF values. For PCBs, the BSAF value is lower and more protective than the ERL value.</p>

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		<p>establish the goal conditions, (i.e., what factors must be achieved in order to remove the impairment) selecting tissue concentrations provides for the direct measurement of the beneficial use that is impaired and does not rely on a surrogate measure of impairment (sediment).</p> <p>In order to develop a sediment concentration that is protective of aquatic life, wildlife, and/or human health, a model must be developed (either simplistic or complex) that establishes a site-specific relationship between sediment and tissue concentrations. As every model has numerous assumptions, there will always be a degree of uncertainty in the results. The uncertainty is limited if the translation from tissue to sediment concentrations is established in the linkage analysis and then utilized as the basis for allocating allowable loads and not for determining if the beneficial use is achieved. By selecting fish tissue concentrations as the only media for numeric targets, attainment of the beneficial use is therefore not a moving target. As attainment of the beneficial use can be directly measured through tissue concentrations, it obviates the need for additional surrogate targets based on sediment concentrations.</p> <p>The TMDL acknowledges the limitations (as noted in the bulleted list above in this comment) associated with sediment concentrations for the protection of human health. Therefore, the Bureau requests that the numeric targets for DDT, PCBs, dieldrin, chlordane, and toxaphene be based only on fish tissue and that the associated sediment targets be removed. Any translation of fish tissue targets to sediment concentrations or loads should be detailed in the linkage analysis and allocations sections.</p>	
A12	BPA pg5	<p>The sediment target for PCBs (3.6 ug/kg) is based on Table 3 of Gobas and Arnot, 2010 (p.1395). The values were developed using a food web bioaccumulation model that incorporated PCB concentrations taken from San Francisco Bay sediment samples and are based on harbor seal risk. As the associated sediment targets are intended to result in attainment of fish tissue targets for the protection of human health, a site-specific value for San Francisco Bay for the protection of harbor seals</p>	<p>See response to Comment 36.9 in the public comments response document.</p>

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		<p>is not an appropriate sediment target for the protection of human health. A bioaccumulation model specific to the harbor waters is necessary to translate the fish tissue values into applicable sediment concentrations in the Greater Harbor waters. Therefore, consistent with Comments #10 and #11, the Bureau requests that the sediment targets are removed.</p>	
A13	BPA pg5	<p>The sediment targets presented on page 5 for bioaccumulative pollutants are taken from literature values that were specifically calculated using bioaccumulation models for other watersheds. As site-specific information can have a significant impact on the resulting sediment concentration to attain the same fish tissue value, it is important to note that these values are not based on conditions in the Dominguez Channel Estuary or Greater Harbor Waters.</p> <p>As noted in Comment #11, it is most appropriate to translate fish tissue targets into sediment concentrations in the linkage analysis. The assumptions, such as the use of data from other watersheds, can be presented and explained. Therefore, the Bureau requests that the sediment targets are removed as targets and the translation between fish tissue and sediment is detailed in the linkage analysis. Note that the Phase II Sediment Quality Objectives are anticipated to include explicit procedures to estimate site-specific sediment concentrations and can be used to support future revisions.</p>	<p>See response to Comment 36.9 in the public comments response document.</p> <p>When the Sediment Quality Control Plan – Part 2, is complete, the TMDL may be reconsidered to accommodate the new policy.</p>
A14	BPA pg5-6	<p>There are two Superfund sites located within the watershed – the Montrose Superfund Site and the Del Amo Superfund Site. The Montrose Site is a significant historic source of DDT but it has not been considered as either a legacy source (bed sediments in Dominguez Channel, Greater Harbor Waters) or current source (stormwater discharger from the site) of DDT in the watershed. Per USEPA’s Superfund website (http://yosemite.epa.gov/r9/sfund/r9sfdocw.nsf/vwsoalphabetic/Montrose+Chemical+Corp?OpenDocument):</p> <p><i>Montrose Chemical Corporation of California (Montrose) manufactured the</i></p>	<p>See response to Comment 21.8 in the public comments response document.</p> <p>The Source Assessment does not describe the manufacture of DDT or PCBs or the industries which can lead to the contribution of DDT or PCB or metals to the watersheds, but satisfactorily describes the watershed sources of the contaminants to the waters of the Dominguez Channel and the greater harbor waters.</p>

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		<p><i>technical grade of the pesticide DDT (dichloro-diphenyl-trichloroethane) from 1947 until 1982 at a plant located at 20201 Normandie Avenue, Los Angeles. Contaminated surface water from the Montrose site occasionally flowed off the property along a surface water drainage pathway. This contamination originally flowed in an open ditch, called the Kenwood Ditch, which paralleled Kenwood Avenue. This is called the Kenwood Stormwater Drainage Pathway. The Kenwood stormwater drainage emptied into a slough, or marshy area south of Torrance Boulevard, where it turned eastward and entered the Dominguez channel. EPA found high levels of DDT in soil in residential yards along the Kenwood Stormwater Drainage Pathway, and has conducted a cleanup action to remove this soil and restore the yards.</i></p> <p><i>In the 1970s, Los Angeles County filled the Kenwood Ditch and replaced it with the Kenwood Drain, an enclosed pipe buried under Kenwood Avenue. The slough was filled and the Kenwood Drain now empties into the Torrance Lateral storm water collection system. Downstream, the Dominguez channel empties into the Los Angeles Harbor about 10 miles from the Montrose plant (7 miles direct). EPA is evaluating the potential for DDT-contaminated sediments along the existing stormwater pathway and any associated ecological risks (the potential for DDT in the pathway to cause harm to wildlife and water organisms).</i></p> <p>Therefore, the Bureau requests that the Source Assessment adequately and appropriately address the potential contribution from the two Superfund Sites on the impairment</p>	<p>Commenter may also be interested in Comment 36.34 in the public comments response document.</p>
A15	BPA pg6-8	<p>It appears that the LSPC model was used to estimate loading in some cases and for some areas, whereas the EFDC model was used in other cases and in some areas. It is unclear how the results of the models are correlated with each other and how accurate the calculations presented are based on that correlation. Please explain.</p>	<p>A complete description of the two models is in the Staff Report Linkage Analysis and in the 3 appendices to the Staff Report.</p>
A16	BPA pg6-8	<p>The TMDL document must describe the relationship between numeric target(s) and identified pollutant sources, and estimate total assimilative capacity (loading capacity) of the waterbody for the pollutant of concern [40 CFR 130.7(d) and 40</p>	<p>A complete description of the Linkage Analysis is in the Staff Report. See also Comment 36.74 in the public comments response document.</p>

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		CFR 130.2 (i) and (f)]. However, the TMDL linkage analysis does not describe the relationship between the fish tissue target and the selected sediment values. The sediment values are not established objectives, rather they are values extrapolated via various non-site-specific methods to establish a link between the endpoint of interest (pollutant levels in tissue) for which a target is presented. Therefore, the description of the relationship between the tissue target and the sources of pollutants to the tissue (i.e., through a sediment pathway) should be developed in the Linkage Analysis section. The results of the linkage analysis could then be used to develop sediment allocations in sediment. This approach appropriately weights the importance of the tissue numeric targets; in that attainment of the tissue targets is the end goal, not the attainment of the corresponding sediment values.	
A17	BPA pg10	Interim allocations are assigned to the San Gabriel River Estuary; however the Implementation Plan (pg. 30) notes that “responsible parties in these watersheds are implementing other TMDLs, which will directly or indirectly support the goals of this TMDL.” The Implementation Plan also states that “implementation actions <i>may be developed and required in Phase II and Phase III</i> as necessary to meet the targets in the Greater Harbor waters.” The Implementation Schedule (Table 7-40.2) also states in Task Number 10 that the “Regional Board will consider requirements for additional implementation or TMDLs for Los Angeles and San Gabriel Rivers and interim targets <i>and allocations for the end of Phase II.</i> ” In addition, the Staff Report does not provide an impairment assessment for the San Gabriel River Estuary. As such, the interim allocations assigned to the San Gabriel River Estuary should be removed	The San Gabriel River Estuary is removed from the interim allocations table in the Basin Plan Amendment.
A18	BPA pg12	Page 39 of the Staff Report states: “Dissolved lead was below the criteria in wet weather conditions and no dry weather exceedances occurred for any of these three metals.” Page 39 also states that “there is sufficient rationale to conclude water column impairments for Cu and Zn” but does not include lead in this conclusion. However, allocations are also established in Torrance Lateral for lead in water without a finding of impairment. The Bureau requests that the allocations for lead in water be removed.	Torrance Lateral dischargers will need to comply with the concentration-based allocations as shown due to impairments in Torrance Lateral and to support downstream uses in Dominguez Channel where additional impairments, including Pb in the water column, exist.

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A19	BPA pg12	The Staff Report states (pg. 39): “Sediment results for copper and lead were above State listing policy sediment quality values.” However, allocations are also established in Torrance Lateral for zinc in sediment without a finding of impairment. The Bureau requests that the allocations for zinc in sediment be removed.	Torrance Lateral dischargers will need to comply with the concentration-based allocations as shown due to impairments in Torrance Lateral and to support downstream uses in Dominguez Channel Estuary, where additional impairments, including Zn in sediment, exist.
A20	BPA pg10, 15	<p>The Staff Report makes numerous statements regarding non-impairment for metals in the Los Angeles River Estuary, including:</p> <p>Pg. 37: “Some water bodies appeared to show non-impairment for metals... [including the] Los Angeles Estuary.”</p> <p>Pg. 41: “Based on available data in this pre-TMDL assessment, this waterbody is not impaired for lead and zinc, although it is on 2006 303(d) list.”</p> <p>Pg. 42, Table 2-18: Cu, Pb, Zn, or PAHs not identified as impaired in the Los Angeles Estuary</p> <p>As no impairment has been established, no allocations are warranted for metals in the Los Angeles River Estuary. The Bureau requests that the interim allocations and the final allocations be removed.</p>	See response to Comment 37.5 in public response document.
A21	BPA pg10, 15	The Staff Report states (Page 41): “Based on available data, this waterbody is not impaired for chromium, copper, zinc, and total PAHs and these listings have been removed from the 2008/2010 303(d) list.” However, interim allocations (BPA, Pg. 10) and final allocations (BPA, Pg. 15) have been established for copper, lead, zinc, and PAHs in San Pedro Bay. As no impairment has been established, no allocations are warranted for these chemicals. As such, the Bureau requests that they are removed.	See response to Comment 37.5 in public response document.
A22	BPA	The TMDL establishes interim concentration-based allocations for freshwater metals	Interim WLAs for freshwater metals in Dominguez

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	pg9	<p>in the Dominguez Channel that are effective on the effective date of the TMDL. Per discussions with Regional Board staff, the intent of the interim allocations is to ensure that conditions do not get worse prior to attaining final allocations. The Bureau is committed to improving water quality and meeting the end goals of the TMDL. However, the calculation approach results in interim allocations that potentially will subject responsible parties to permit violations even if existing conditions are maintained. As discussed below, the Bureau is recommending potential solutions that address the concern of permit violations while maintaining the Regional Board’s goal of maintaining or improving the existing water quality.</p> <p><u>Interim Allocation Application</u></p> <p>Interim allocations are established to ensure that water quality does not get worse during the implementation period. In setting the interim allocations, the BPA states that permitted dischargers shall ensure that concentrations do not exceed levels that can be attained by performance of the facility’s treatment technologies. Although this approach is consistent with NPDES permitting methodology for wastewater treatment plants (WTPs), it is not consistent with stormwater permitting methodology. WTPs have treatment technologies that are in place and are operated to maintain a certain level of performance. Because WTPs are actual facilities, a 95th percentile value can be used to ensure facilities continue to operate in a manner consistent with previous performance (i.e., if a WTP violated an interim allocation, plant operations could be modified to return to previous levels of performance). However, MS4 dischargers do not have treatment technologies in place within the watershed upon which to base “current” performance. As such, from a practical perspective, if responsible parties exceed the interim limits on the effective date of the TMDL, they will not be able to do anything more than continue to develop their implementation plans per the schedule since the responsible parties do not yet have treatment in place.</p> <p><u>Interim Allocation Calculation</u></p>	<p>Channel are now recalculated based on all of the data collected from January 2006 to January 2010 (one of commenter’s suggested approaches). See response to Comment 18.1 and 21.4 in the public response document.</p>

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		<p>The interim allocations are established using the 95th percentile values of existing data. The use of the 95th percentile value essentially guarantees the exceedance of an interim allocation as there is a 5% probability that samples will exceed the interim allocations. Thus, if the goal of interim allocations is to “keep things from getting worse,” use of a 95th percentile will periodically subject responsible parties to permit violations even if existing conditions are maintained. Additionally, the interim allocations exclude data from the calculations without providing justification, thereby lowering the interim allocations. Per discussions with Regional Board staff, the data were excluded in order to ensure the interim limits were meaningful. However, in reviewing the two data points that were excluded (December 2006 and April 2007), the total suspended solids (TSS) data on those days do not suggest unusually high TSS may have caused the high metals results. These data therefore are representative of existing conditions in the watershed. As those data points were excluded from the calculation of the interim allocations, if a future sample was at the same concentration, the discharger would be out of compliance with the interim allocation.</p> <p><u>Suggested Solutions</u></p> <p>TMDL development guidance documents, including USEPA’s 2000 <i>Guidance for Developing TMDLs in California</i>, do not require the inclusion of interim allocations. As such, if the Regional Board chooses to establish interim allocations, the Regional Board has considerable discretion on the approach and timing for the establishment of such interim allocations. The following provide suggested solutions to address the issues identified above that we feel would address the goals of the Regional Board and are consistent with current conditions:</p> <ol style="list-style-type: none"> 1. Set the interim limits equal to the maximum observed values of all data (including the currently censored data), or 2. Calculate the interim limits using the currently censored data, or 3. Exclude all future data considered outliers determined in a manner consistent with the currently censored data when determining compliance with the interim 	

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		<p>allocations, or</p> <p>4. Compare annual median values of samples to the interim limits to determine compliance rather than comparing a single sample to the interim limits.</p> <p>Therefore, the Bureau requests that one of the aforementioned suggestions are incorporated into the TMDL and language is included indicating that the means to demonstrating attainment of interim allocations is consistent with the means to demonstrating attainment of the final allocations.</p>	
A23	BPA pg10	<p>The TMDL establishes interim concentration-based allocations for metals and organics in sediment that are effective on the effective date of the TMDL. Per discussions with Regional Board staff, the intent of the interim allocations is to ensure that conditions do not get worse until final allocations are required to be achieved. As discussed in Comment #22, although the calculation approach is consistent with NPDES permitting methodology for wastewater treatment plants (WTPs), it is not feasible or appropriate for regulating bed sediments. For these reasons, the Bureau feels that the inclusion of interim sediment allocations is not appropriate at this time.</p> <p>Additionally, the Bureau feels that interim sediment allocations are being established for constituents that have not yet been demonstrated to be causing beneficial use impairments and it is prudent to wait until further data are collected before establishing interim allocations. A number of studies have demonstrated that ERLs do not appropriately link sediment concentrations to effects on the benthic community and are orders of magnitude below toxicity thresholds for benthic organisms. While the interim sediment allocations are based on the 95th percentile of existing data, the impairments themselves, leading to the establishment of interim and final allocations for particular chemicals, have been established using the ERLs. Establishing interim allocations for impairments identified using the ERLs and not the State's adopted and USEPA approved sediment quality objectives may subject responsible parties to permit violations where no actual impairment exists and where causality has not been demonstrated.</p>	See response to Comment 21.5 in public response document.

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		<p>Existing data from the Outer Harbor supports the need for evaluating data using the applicable sediment quality objectives (the SQOs) and conducting stressor identification as individual chemicals are not exceeding the sediment guidelines. Page 40 of the Staff Report states: <i>“Sediment toxicity has been observed in 7 of 26 samples, including 3 of 7 moderately toxic samples in Bight 03. No individual contaminants were above sediment guidelines in more recent studies.”</i></p> <p><u>Suggested Solutions</u></p> <p>As discussed above, since TMDL guidance documents do not require the inclusion of interim allocations, if the Regional Board chooses to establish interim allocations, the Regional Board has considerable discretion on the approach and timing for the establishment of such interim allocations. The inclusion of interim sediment allocations at this time subjects responsible parties to permit violations for chemicals in sediment that may not be the cause of impairments. Based upon the recent memorandum from USEPA regarding the incorporation of WLAs into NPDES permits, it is reasonable to expect that the interim allocations could be included in responsible parties’ permits as numeric effluent limits. However, Section VII.B of the State’s sediment quality objectives require [emphasis added]:</p> <p><i>Effluent limits established to protect or restore sediment quality shall be developed only after:</i></p> <p><i>a. A clear relationship has been established linking the discharge to the degradation,</i> <i>b. The pollutants causing or contributing to the degradation have been identified, and</i> <i>c. Appropriate loading studies have been completed to estimate the reductions in pollutant loading that will restore sediment quality.</i></p> <p><i>These actions are described further in Sections VII.F and VII.G.</i></p> <p>Therefore, it is appropriate and consistent with the Phase I SQOs to delay the establishment of interim allocations until the requirements of Section VII.B of the Phase I SQOs are met. As the TMDL already includes a specific reopener to consider</p>	

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		<p>the results of the stressor identification and other applicable special studies, interim allocations could be established at that time.</p> <p>If the Regional Board chooses to establish interim allocations at this time, the issue of potential permit violations of the interim allocations could be mitigated with the inclusion of language for permit writers that clearly identifies the intent of the interim allocations. The suggested language is as follows:</p> <p>“These interim allocations are established to ensure that conditions in receiving waters are not further degraded during the time period responsible parties are implementing actions to achieve the final allocations. Compliance with the interim allocations may be achieved via the following different means:</p> <ol style="list-style-type: none"> 1. Demonstrate that the sediment quality condition of Unimpacted or Likely Unimpacted via the interpretation and integration of multiple lines of evidence as defined in the SQO Part 1, is met; or 2. Meet the interim allocations in bed sediment on a five year averaging period in all waterbodies, except for the Los Angeles River Estuary where the averaging period is three years; or 3. Discharge concentrations meet the interim allocations on a five year averaging period except for the Los Angeles River Estuary where the averaging period is three years. <p>Therefore, the Bureau requests that the interim sediment allocations are removed and, if appropriate, are established at the year six reopener either based on the results of stressor identification studies and/or the timelines presented in the responsible parties implementation plans. If the Regional Board chooses to establish interim allocations at this time, the Bureau requests that the BPA incorporate the aforementioned suggestions into the TMDL and include language indicating that the means to demonstrate attainment of interim allocations is consistent with the means to demonstrate attainment of final allocations.</p>	
A24	BPA	Any approach to interim allocations should acknowledge that future information may	Staff find the BPA language, as presented in No.4

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	pg10	<p>lead to an appropriate adjustment to the interim allocations. As such, please add the following language in the interim allocations section:</p> <p>“This TMDL anticipates revisions, additions, or deletions to specific interim sediment allocations based upon the results of stressor identification and development of site-specific sediment quality values.”</p>	of the Implementation Section (page 30 of the tentative BPA), is sufficient.
A25		The interim concentration based limits are not consistent with the data available. Notwithstanding the previous comments related to removing the interim allocations, any calculations related to interim sediment allocations for existing sediment should use all readily available data. The Bureau suggests contacting the Ports of LA and Long Beach to obtain data.	See response to Comment 20.1 of the public response document.
A26		<p>Toxicity is an effect, not a pollutant. Therefore, inclusion of a toxicity target as a numeric value representative of the goal condition to ensure the waterbody is supporting beneficial uses is appropriate. However, it is not appropriate to then translate that value directly into an allocation as toxicity is an “effect” that does not represent an individual “pollutant” that can be controlled. For example, copper can cause toxicity and to address the effect (toxicity), copper (the pollutant) must be controlled. An appropriate approach to address toxicity can be found by looking at the approach utilized by the Regional Board and USEPA for TMDLs addressing algae TMDLs to address algae impairments often set an algae target to be achieved, but the TMDL assigns allocations based on the pollutant (i.e., total nitrogen and total phosphorus) that may need to be controlled to address the “effect” (e.g., algae). This cause and effect relationship is reflected in the Basin Plan. The narrative toxicity objective first defines what constitutes toxicity and then defines how it is to be controlled - by regulating the specific toxicants causing the toxic effect: “Effluent limits for specific toxicants can be established by the Regional Board to control toxicity identified under Toxicity Identification Evaluations (TIEs).”</p> <p>Given that a TUC target 1) cannot be divided amongst responsible parties as allocations, 2) numeric allocations are set for individual pollutants believed to be</p>	See response to Comment 14.6 and 21.6 in public response documents.

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		<p>causing toxicity within the TMDL watersheds, and 3) future monitoring will require the identification of the causes of toxicity, the TUC interim and final allocations should be removed from the BPA. Alternatively, the interim and final TUC allocations could clearly state that the allocations are established as triggers consistent with NPDES permitting practice within the region and State at the time of permit issuance, reissuance, or revision. It is important that these changes occur within the allocations section of the TMDL because NPDES permit writers must write permits consistent with the assumptions presented in the allocations section. Therefore, the Bureau requests that the interim and final toxicity allocations removed, or alternatively, the BPA explicitly states within the allocations section that the allocations are to be incorporated into permits consistent with NPDES permitting practices within the region and State at the time of permit issuance, reissuance, or revision and at the time of TMDL adoption the practice is to implement these allocations as a trigger.</p>	
A27	BPA pg11	<p>The Loading Capacity section of the BPA states:</p> <p><i>During wet weather, the loading capacity is a function of the volume of water in the Channel. Given the variability in wet-weather flows, the concept of a single critical flow was not justified. Instead, a load duration curve approach was used to establish the wet-weather loading capacity. The load duration curve was developed by multiplying the wet-weather flows by the in-stream numeric targets. The resulting curves identify the allowable load for a given flow. The wet-weather TMDLs for copper and zinc are defined by these load duration curves.</i></p> <p>However, the final allocations are mass-based at the lowest flow rate associated with a storm event. Any wet-weather event greater than the lowest flow rate can result in the CTR criteria being met but the allocation being exceeded simply because flows are elevated. Given that the lowest flow rate associated with wet-weather was selected, essentially all wet-weather events would be expected to exceed the allocation even if CTR criteria were met. To be consistent with the Loading Capacity section of the BPA and the Los Angeles River Metals TMDL, the mass-based final</p>	See response to Comment 21.1 and 35.2(a) in the public response document.

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		<p>allocations should be set by multiplying the wet-weather flow rate at the time of sample collection by the hardness adjusted criteria.</p>	
A28	BPA pg 11-12	<p>The California Toxics Rule (CTR) establishes hardness adjusted dissolved criteria for copper, lead, and zinc. By selecting a singular hardness and using the total fraction to establish a TMDL target, the waterbody could meet the dissolved CTR criteria (i.e., the protective condition) but not meet the TMDL targets and corresponding allocations. As the goal of the TMDL is to meet the criteria protective of the corresponding beneficial use (i.e., the CTR criteria), the TMDL target should be set as the dissolved hardness dependent equation rather than a singular total target. The need to set allocations based on total metals is understood; however, it would be more appropriate to convert the dissolved targets into total allocations within either the linkage analysis or allocations sections of the TMDL.</p> <p>Therefore, the Bureau requests that the Dominguez Channel freshwater metals targets and allocations are revised and set equal to the CTR dissolved metals hardness based equations. Alternatively, language could be added to the allocations section stating that “Compliance with the freshwater metals allocations may be demonstrated via the following means: a) final allocations are met, b) CTR dissolved criteria are met instream, or c) CTR dissolved criteria are met at the point of discharge.”</p>	<p>See response to Comment 21.1 in the public comments response document.</p>
A29	BPA pg 11	<p>The air deposition rates are based on watershed area rather than what is expected to be deposited based on measured deposition rates (which are used in the source analysis and development of mass-based sediment allocations). The measured deposition rates (and in the case of lead the SCAQMD rule) can be used to set the expected loading of air deposition on a daily basis as the TMDL calculates the loading capacities based on a 24 hour event. This approach would be consistent with the approach for setting the mass-based sediment allocations which utilized the air deposition rates to account for what is expected to be deposited and therefore use up a portion of the loading capacity. The expected air dep would account for a portion of the loading capacity which varies based on flow rate. For example, when the flow</p>	<p>Comment noted. Staff applied air deposition rates to waterbody surface area to represent direct air deposition. Staff did not use air deposition data for the watershed, per indirect air deposition.</p> <p>Also loading capacity is determined by daily storm volume not affected by air deposition rates.</p>

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		<p>rate is 62.7 cfs, copper, lead, and zinc air deposition account for 0.9%, 0.001%, and 0.1% of the loading capacity, respectively. Whereas when the flow rate is 200 cfs, copper, lead, and zinc air deposition use up 0.3%, 0.0004%, and 0.03% of the loading capacity, respectively. Therefore, to incorporate air deposition into the load duration approach the amount of loading each metal uses needs to consider flow rate. Alternatively, given that during the smallest storm event (62.7 cfs) these metals only use up between 0.001% and 0.9% of the loading capacity, the effect of air deposition on loading capacity could be removed without affecting the ability of the TMDL to achieve CTR criteria.</p>	
A30	BPA pg11	<p>The Dominguez Channel freshwater allocations include a 10% explicit margin of safety (MOS) to account for uncertainty in the wet-weather TMDLs (e.g., flow conditions and the use of a site-specific translator). The use of a flow duration curve approach to establish the loading capacity based on CTR TMDL targets removes uncertainty related to setting allocations to attain the protective condition since the numeric target has to be met instream to meet the loading capacity and allocations. Establishing an explicit MOS therefore results in requiring responsible parties to discharge well below the CTR criteria. As the CTR criteria were established at levels that are protective of beneficial uses, the additional MOS implies that the CTR criteria were not established appropriately.</p> <p>In terms of the use of site-specific conversion factors resulting in uncertainty, the TMDL follows the USEPA's 1996 Metals Translator Guidance and California's State Implementation Plan (SIP) procedures for calculating translators. Further, there TMDL uses 29 data points for calculation of the conversation factors exceeding the minimum requirements (see page 15 of the 1996 Metals Translator Guidance). Additionally, per the SIP, the TMDL uses the 90th percentile value to calculate site-specific conversation factors to result in a conservative estimate. The 1996 Translator Guidance (page 15) suggests that an extreme percentile (e.g., 90th percentile) of the dissolved metals fraction (f_D) may be used as an alternative method of including a MOS in TMDLs or WLAs.</p>	See response to Comment 21.1 of the public response document.

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		<p>Therefore, the current application of an explicit 10% MOS is inconsistent with the intent of the California Toxics Rule and USEPA’s Translator Guidance by: 1) double applying an MOS by using the 90th percentile f_D in addition to an explicit 10% MOS and 2) establishing a MOS on the CTR criteria which were established at levels that are protective of beneficial uses. Additionally, there is precedent for not including an explicit MOS for metals in the Los Angeles region. The Los Angeles River Metals TMDL utilized a load duration curve approach to set allocations (including the use of site-specific translators) and specifically stated that an explicit MOS was not needed.</p> <p>Therefore, the Bureau requests that the 10% explicit margin of safety is removed. Alternatively, language could be added to the allocations section stating that “Compliance with the freshwater metals allocations may be demonstrated via the following means: a) final allocations are met, b) CTR dissolved criteria are met instream, or c) CTR dissolved criteria are met at the point of discharge.”</p>	
A31	BPA pg13-19	<p>Air deposition utilizes a significant portion of the loading capacity in most TMDL waterbodies and is greater than the loading capacity in more than one waterbody. However, it is unreasonable to expect that all pollutants deposited from air sources settle on bed sediments. The TMDL should calculate the expected fraction of air deposited pollutants that would be expected to settle on bed sediment and revise the bed sediment load allocations.</p>	See response to Comments 20.2 in the public response document.
A32	BPA pg13-19	<p>It is stated that LAs for air deposition are equal to current estimates of direct deposition. Shouldn’t the LAs for air deposition be set equal to an amount of discharge allowed that would result in a healthy condition for the impaired waterbody? The Table on BPA pages 13-15 show that if no reductions are made in air deposition (that they are assigned current levels), the TMDL can be exceeded. In addition, the calculation of LAs for bed sediment becomes negative due to the fact that air deposition is higher than the TMDL. This should be reconciled. How does</p>	See response to Comment 20.2 in the public response documents.

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		one implement and meet a negative allocation?	
A33	BPA pg13-19	The final sediment allocations for the Terminal Island Water Reclamation Plant (WRP) are based on one year of flow data rather than the design capacity for the plant. TMDLs developed in Region 4 have consistently utilized design flow rates to calculate allocations for WRPs. Please revise the allocations based on the TIWRP's design capacity of 30 MGD.	See response to Comment 21.2 in the public response document.
A34	BPA pg13-19	<p>A number of concerns related to the way in which TIWRP is addressed in the TMDL have been identified.</p> <ol style="list-style-type: none"> 1. The TMDL Staff Report states: "The Terminal Island Treatment Plant discharges secondary-treated effluent to the Outer Harbor and this POTW is under a time schedule order to eliminate their discharge into surface waters." However, the TIWRP is a tertiary treatment plant that is not under a time schedule order to eliminate their discharge. This language should be corrected. 2. The final sediment allocations for the TIWRP are based on one year of flow data (15.9 MGD) rather than the design capacity for the plant (30 MGD). TMDLs developed in Region 4 have consistently utilized design flow rates to calculate allocations for WRPs (i.e., the LA River Metals TMDL). The design flow rate should be used to calculate final allocations for TIWRP. 3. The sediment allocations were calculated in a manner that is inconsistent with the other discharges to the Harbor. As a result, the wasteload allocations are not representative of the effluent limits that should be applied to the WRP to achieve the necessary concentrations in the sediment. Following is a more detailed discussion of this issue. <p>The sediment allocations for the TIWRP are calculated using effluent concentrations set equal to the CTR criteria times a flowrate that assumes all pollutants in the WRP effluent will be deposited in the sediments. However, not all of the pollutants in the</p>	See response to Comment 21.2 in the public response document.

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		<p>WRP effluent will be deposited as bed sediments. As such, the BPA should clearly indicate that the WLAs (including WLAs for TIWRP) are for what settles on the bed sediment and does not directly correspond to an allowable effluent concentration. However, the Bureau acknowledges that it is important that WLAs for the TIWRP are clearly translatable into effluent limits to support permit writers during the reissuance of the TIWRP's NPDES permit. The following proposes a methodology for deriving appropriate effluent limits for the TIWRP to ensure that the TMDL sediment targets are not exceeded.</p> <p>The WRP provides tertiary filtration so that suspended solids in the effluent are low in concentration and are not readily settleable. Additionally, the WRP discharge has an established mixing zone where effluent discharged from the diffuser turbulently mixes with the ambient water, a high energy process driven by the dissipation of the momentum and buoyancy energy of the discharge. Because the WRP effluent is lower density than the surrounding harbor waters, the mixing zone extends upward from the diffuser toward the surface. The end of pipe discharge conditions do not directly correspond to the loading from TIWRP effluent to bed sediments as the high momentum buoyant plume is energetically mixing the high quality effluent, precluding settling of effluent materials within the near-field.</p> <p>However, allowable effluent concentrations can be linked to the edge of mixing zone conditions in the harbor using the CTR conversion factors, dilution, and ambient water quality for the development of effluent limits to ensure that the assigned sediment loading allocations (i.e., the amount of sediment and pollutant that could potentially settle in bed sediment) are not exceeded. Consideration at the edge of mixing zone conditions is a conservative way to meet the intent of the allocation approach. The suspended sediment at the edge of the mixing zones may settle as the lower energy tidal currents move the water through the outer harbor and ultimately out into the open ocean. The first step is to characterize the suspended sediment in the ambient harbor waters. The average measured total suspended sediment (TSS) concentration in the harbor near the TIWRP discharge was 4.7 mg/L based on data collected by the Port of Los Angeles (POLA) between 2008 - 2011. An average TSS</p>	

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		<p>over an annual or longer time period is appropriate because the timeframe of settling explicitly averages conditions over time periods in the harbors exceeding three years. The CTR conversion factor (CV) is used with the average harbor TSS to determine the critical ambient constituent (total metals or toxics) conditions so that the TSS at the edge of the TIWRP mixing zone are at the TMDL sediment targets (SQVs) by first calculating the target particulate constituent concentration (TSS*SQV) and second by calculating the critical water column total constituent concentration $((1/(1 - CV)) * \text{particulate constituent concentration})$. The critical water column total constituent concentration is the allowable concentration in harbor water that would not result in exceedances of the TMDL targets in the suspended sediment. Finally, the critical water column total concentration, measured ambient concentration, and dilution credit are used in the standard dilution equation detailed in the State Implementation Plan (SIP) to determine the allowable effluent concentration so that the TMDL sediment targets are not exceeded.</p> <p>For example, the allowable effluent copper may be determined utilizing the following: [See City of Los Angeles letter for calculations]</p> <p>Therefore, the Bureau requests the following:</p> <ul style="list-style-type: none"> • Revise inaccurate information related to the TIWRP’s treatment facilities and remove reference to a time schedule order that is not in place. • Add the following clarifying language prior to the mass-based allocation tables “The mass-based sediment allocations indicate the allowable settleable load to bed sediments from each source. These allocations do not represent discharge limits.” • Incorporate the aforementioned approach to determining TIWRP effluent limits into the allocations section of the BPA so that NPDES permit writers can clearly and appropriately incorporate the intended Waste Load Allocations into the TIWRP permit. 	
A35	BPA pg12-	The BPA appropriately notes, in the Numeric Targets section, that the TMDL anticipates revisions to the sediment quality targets. Such revisions will result from	Staff find the BPA language, as presented, is sufficient.

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	19	<p>the implementation of the Phase I SQO by conducting stressor identification and developing site-specific sediment quality values. Revisions to the Numeric Targets based on Phase I SQO stressor identification process would also necessitate a revision to the allocations. These revisions may include the addition of chemicals not currently identified, the deletion of chemicals currently identified, or revision to the concentrations for chemicals already identified. Therefore, please include the following language to the allocations section of the BPA:</p> <p>“This TMDL anticipates revisions, additions, or deletions to specific sediment allocations based upon the results of stressor identification and development of site-specific sediment quality values.”</p> <p>And include the following language as a footnote in the allocations tables: “Revisions, additions, and deletions to the allocations are anticipated based upon the results of stressor identification and development of site-specific sediment quality values.”</p>	
A36	BPA pg13-27	<p>On pages 13 and 16 the BPA states: “The bed sediment LA is assigned to the City of Los Angeles (including the Port of Los Angeles), the City of Long Beach (including the Port of Long Beach) and the State Lands Commission.” However, on page 27, the BPA states: “The Los Angeles County Flood Control District (District) owns and operates Dominguez Channel; therefore, the District and the cities that discharge to Dominguez Channel shall each be responsible for conducting implementation actions to address contaminated sediments in Dominguez Channel.” On page 28 of the BPA, sediment reductions within the Ports are assigned to the cities of LA and Long Beach and it is assumed they are assigned the responsibilities as the owner operators. In the recently adopted Machado Lake Toxics TMDL, the City of LA was assigned the bed sediment allocations as the owner operator of the lake. For consistency with this TMDL and previously adopted TMDLs, the bed sediment allocations and associated implementation actions in the Dominguez Channel should be assigned only to the Los Angeles County Flood Control District. Furthermore, the Flood Control District collects fees to maintain the channel from the surrounding cities and has responsibilities for all activities that occur within the channel.</p>	See response to Comment 21.7 in the public response document.

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		For consistency with previously adopted TMDLs and consistency within this TMDL, please revise the allocations and implementation sections to assign the bed sediment load allocations and corresponding implementation actions for the Dominguez Channel and Estuary to the Los Angeles County Flood Control District.	
A37	BPA pg16	Compliance with sediment TMDLs for Cd, Cr, and Hg should be allowed to be demonstrated via the same means as Cu, Pb, Zn, and total PAHs.	The Basin Plan Amendment has been clarified.
A38	BPA pg17-18	The TMDLs for PCBs appear to have been calculated using a goal condition of 3.2 ug/kg. However, a 3.6 ug/kg sediment value is presented in the targets section. Please clarify which is the appropriate value and recalculate the TMDL if necessary.	The Basin Plan Amendment has been clarified.
A39	BPA pg16-19	<p>Establishing the mass-based WLAs as annual limits does not account for the number of years it would take for sediments assigned allocations to affect the active sediment layer the TMDL is intended to address (i.e., the top 5 centimeters [cm] of sediment). Based on the information provided in the TMDL it would take between three (3) and 900 years for sediments to accumulate to a depth equivalent to the active layer (5 cm) (see the table below). The slow rate of deposition requires the use of a more appropriate averaging period.</p> <p>[See City of Los Angeles letter for table] See Comment #40 for requested revisions to alternative means to compliance for both indirect and direct effects.</p>	See response to Comment 21.3 in public response documents.
A40	BPA pg16-19	The final mass-based sediment TMDLs for metals, PAHs, total DDT and total PCBs represent the mass of an individual pollutant that could be deposited in bed sediment within a given year and meet the calculated loading capacity. However, there is no language in the BPA or TMDL Staff Report that clearly indicates that the mass-based allocations are assigned to what is deposited. Rather, the BPA on page 16	See response to Comment 21.3 in public response documents.

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		<p>states “Compliance with mass-based WLAs shall be measured at designated discharge points.” Basing compliance with mass-based WLAs at designated discharge points is not only contradictory to the allocations which are based on an acceptable bed sediment condition rather than a discharge condition, discharges would have to reduce loadings well below a level that would cause or contribute to an impairment. Additionally, setting allocations on what is deposited creates a significant challenge for responsible parties on how to implement the TMDL and meet the protective condition because the allocations do not tie back to approaches to addressing loads (i.e., treatment controls or remediation). Further, the goal of the TMDL is to meet the TMDL targets. As such, an additional means of compliance should be allowed based on discharges meeting the TMDL targets (which are not the same as the allocations).</p> <p>The following requested clarifications would help guide responsible parties as they design and implement BMPs, meet the protective conditions, and be in compliance with the TMDL:</p> <ul style="list-style-type: none"> • Add the following clarifying language prior to the mass-based allocation tables “The mass-based sediment allocations indicate the allowable settleable load to bed sediments from each source. These allocations do not represent discharge limits.” • In the alternative means to compliance for both direct and indirect effects two additional means for demonstrating compliance should be included: <ul style="list-style-type: none"> ○ TMDL sediment targets are met in the TMDL waterbody, or ○ Discharge concentrations meet the TMDL sediment targets on a five year averaging period in all waterbodies except for the Los Angeles River Estuary where the averaging period would be set at three years. The suggested averaging period is consistent with the approach used to develop the averaging period in the Machado Lake Toxics TMDL. (See Comment #39) • For the TIWRP WLAs, incorporate the approach in Comment #34 to develop appropriate effluent limits for inclusion in the NDPES permit. • In the alternative means to demonstrate compliance for indirect effects, add the following underlined language “Fish tissue targets are met <u>in species resident to the</u> 	

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		<u>TMDL waterbodies.</u> ” (See Comment #41)	
A41	BPA pg19	<p>Currently the TMDL states: Compliance with these bioaccumulative TMDLs may be demonstrated via two different means:</p> <ul style="list-style-type: none"> a. Fish tissue targets are met. b. Final sediment allocations, as presented above, are met. <p>The Bureau requests that compliance via option a. should be revised to include the following: “Fish tissue targets are met in species resident to the TMDL waterbody”.</p> <p>Inclusion of the resident species language is important given that non-resident species can bioaccumulate pollutants in waterbodies not addressed by the TMDL. Specifically, the nearby Palos Verdes Shelf Superfund Site is an area contaminated by DDT and PCBs. USEPA’s September 2009 Interim Record of Decision for the Palos Verdes Shelf Superfund Site is based on allowable levels of DDT and PCBs in sediment and tissue that are orders of magnitude higher than what is proposed in the Harbors TMDLs. Pollutant levels in transient fish that are sampled within the TMDL waterbodies may have little to no relationship to the level of pollutants in sediments in the TMDL waterbodies themselves. The findings in the Staff Report for Cabrillo Marina (Pg. 40) and Cabrillo Beach (Pg. 41) are an example of the importance of considering resident species and/or the foraging range of such species. The staff report states “sediment results did not show elevated levels of metals or other organic compounds” yet there is a fish consumption advisory in place for DDT and PCBs in certain fish species. Therefore, focusing compliance on resident species is important given that non-resident species can bioaccumulate pollutants in waterbodies not addressed by the TMDL. While elevated fish tissue levels would still likely need to be addressed by the State, implementation measures are only effective if they are directed at the source of exposure.</p>	See response to Comment 21.3 in public response documents.
A42	BPA	The BPA states:	Staff find the BPA language, as presented, is

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	pg19	<p>Compliance with these bioaccumulative TMDLs may be demonstrated via two different means:</p> <ul style="list-style-type: none"> a. Fish tissue targets are met. b. Final sediment allocations, as presented above, are met. <p>The Phase II SQOs for the protection of human health are under development by the State Water Resources Control Board and language similar to the following should be added to indicate compliance may be demonstrated by meeting the Phase II SQOs:</p> <p>“Revisions to these numeric targets are anticipated after the establishment of sediment quality objectives for the protection of human health by the State Water Resources Control Board. Such revisions will occur during the Regional Board’s reconsideration of targets, WLAs, and LAs.”</p> <p>This is consistent with the language for the toxicity allocation which allows for the meeting 1 TUC or its equivalent based on the Statewide Toxicity Policy which is also currently under development.</p>	sufficient.
A43	BPA pg20	<p>It is unclear who the responsible parties are in each of the three waterbody areas. Please add a table in the Monitoring Plan section that clearly states which parties are responsible for implementing monitoring within each waterbody area.</p>	See response to Comment 21.7 in the public response document.
A44	BPA pg21	<p>The BPA states that “water and total suspended solids samples shall be collected at the outlet of the storm drains discharging to the channel and the estuary.” However, on page 22, the BPA states that “Under the coordinated monitoring option, the compliance point for the stormwater WLAs shall be storm drain outfalls or a point(s) in the receiving water that suitably represents the combined discharge of cooperating parties. Please add the following language on page 21 to be consistent with the approach presented on page 22:</p> <p>“Water and total suspended solids samples shall be collected at the outlet of the storm drains discharging to the channel and the estuary or at a point or points in</p>	Staff finds the Basin Plan Amendment is sufficiently clear as written.

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		<p>the receiving water that suitably represents the discharge of responsible parties.”</p>	
A45	BPA pg21, 25	<p>The BPA requires that the first large storm event of the season shall be included as one of the wet weather monitoring events. While responsible parties can plan to capture the first large storm event of the season, events outside of their control can lead to such storms not being sampled. Please revise the language as follows to acknowledge the challenges associated with wet weather monitoring: “The first large storm event of the season shall be included targeted as one of the wet weather monitoring event</p>	<p>Staff find the BPA language, as presented, is sufficient.</p>
A46	BPA pg21, 25	<p>The requirement to monitor sediments every two years is inappropriate given 1) the relatively slow deposition rates suggested by the TMDL’s calculation of annual sediment loading and 2) the timeframe for watershed based controls to have an effect on bed sediment concentrations. Based on the total annual deposition of sediment presented in the Linkage Analysis section, it would take 17 years for the TMDL-defined active layer of the top 5 cm of sediment to accumulate in the Dominguez Channel Estuary. Therefore sampling every two years would not provide much insight in changes to sediment quality related to accumulation of sediment if the TMDL calculations for deposition are correct. Additionally, given the timeframe to implement watershed based controls and the corresponding timeframe for those controls to have an effect on bed sediments based on the TMDL’s calculation of sediment deposition, two year intervals will not provide insight in changes to sediment quality related to accumulation of sediment. As such, the Bureau requests that the frequency of sediment chemistry sampling be revised to once every five years or at a minimum the frequency should be revised to once every five years for the first 15 years of the TMDL during which time watershed controls are being established and then every two years thereafter. A similar revision should be made to the Los Angeles River Watershed and San Gabriel River Watershed responsible agencies. These revisions would be consistent with the frequency required in the Greater LA and LB Harbors monitoring areas</p>	<p>Commenter has suggested, in other comments, special studies and that revisions to targets and revisions to WLA be developed. Given the importance of continuing to develop more and better science with which to refine the TMDL, and given the importance of tracking changes and improvements to all stakeholders, the collection of sediment and fish data every two years will be of great value.</p>

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A47	BPA pg24, 22	<p>The requirement to monitor tissue every two years is inappropriate given 1) the relatively slow deposition rates suggested by the TMDL's of annual sediment loading, 2) the timeframe for watershed based controls to have an effect on bed sediment concentrations, and 3) the timeframe for changes in tissue concentrations based on changes to sediment concentrations. The Bureau requests that the frequency of tissue sampling be revised to once every five years or at a minimum the frequency should be revised to once every five years for the first 15 years of the TMDL during which watershed controls are being established and then every two years thereafter.</p>	See response to Comment A46.
A48	BPA pg22	<p>The target species should be selected based on relevance to evaluating attainment of the TMDL tissue targets through addressing sediment contribution. The current requirement to select target species based on abundance may not result in analysis of species relevant to evaluate the success of responsible parties addressing their contribution to tissue impairments through meeting sediment allocations. Relevant target species would be those that are resident to the TMDL waterbodies and are exposed to sediments responsible parties have been assigned allocations to address. Selection of appropriate target species is important given non-resident species can bioaccumulate pollutants in waterbodies not addressed by the TMDL. Specifically, the nearby Palos Verdes Shelf Superfund Site is an area contaminated by DDT and PCBs. USEPA's September 2009 Interim Record of Decision for the Palos Verdes Shelf Superfund Site is based on allowable levels of DDT and PCBs in sediment and tissue that are orders of magnitude higher than what is proposed in the current TMDL. Pollutant levels in transient fish that are sampled within the TMDL waterbodies may have little to no relationship to the level of pollutants within the TMDL waterbodies themselves. While elevated fish tissue levels would still likely need to be addressed by the State, implementation measures are only effective if they are directed at the source of exposure.</p> <p>Please revise the language related to target species as follows: "The target species in the Dominguez Channel Estuary shall be selected based on local abundance and fish size at the time of field collection species that appropriately reflect contributions to tissue impairments from TMDL responsible parties." Similar revisions should</p>	Staff find the BPA language, as presented, is sufficient.

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		be made to other waterbody area monitoring requirements.	
A49	BPA pg22	If discharges occur from the Superfund Site, such discharges should be the responsibility of the Superfund Site to monitor and take associated implementation actions and not the MS4 dischargers. The Bureau requests that the primary responsible parties for the Superfund Site be required to monitor discharges from the site and such discharges therefore be the responsibility of the Superfund Site and not the MS4 dischargers. The monitoring could be suspended if it is determined the Superfund Site is no longer discharging TMDL pollutants at environmental relevant detections. Additionally, in assessing compliance with the allocations, such discharges should not be counted as part of the MS4s waste load allocation.	See response to Comment 21.8 in the public response document.
A50	BPA pg23, 24	The table on Pgs. 23 and 24 outlines the sediment chemistry monitoring requirements. However, it is not clear which responsible parties are responsible for which site(s). Not all responsible parties discharge or contribute to impairments in all of the waterbodies listed in the table. Please clearly identify which responsible parties have a responsibility to conduct monitoring at each monitoring location.	See response to Comment 21.7 in the public response document.
A51	BPA pg24	As discussed in Comment #41, the target species should be selected based on relevance to evaluating attainment of the TMDL tissue targets through addressing sediment contribution. The current requirement to select three target species including white croaker, a sport fish, and a prey fish may not result in analysis of species relevant to evaluating the success of responsible parties addressing their contribution to tissue impairments. Relevant target species would be those that are resident to the TMDL waterbodies and are exposed to sediments responsible parties have been assigned allocations to address. Selection of appropriate target species is important given non-resident species can bioaccumulate TMDL constituents in waterbodies not addressed by the TMDL. Specifically, the nearby Palos Verdes Shelf Superfund Site is an area contaminated by DDT and PCBs. USEPA's September 2009 Interim Record of Decision for the Palos Verdes Shelf Superfund Site is based on allowable levels of DDT and PCBs in sediment and tissue that are orders of	Staff find the BPA language, as presented, is sufficient.

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		<p>magnitude higher than what is proposed in the current TMDL. Pollutant levels in transient fish that are sampled within the TMDL waterbodies may have little to no relationship to the level of pollutants within the TMDL waterbodies themselves. While elevated fish tissue levels would still likely need to be addressed by the State, implementation measures are only effective if they are directed at the source of exposure.</p> <p>Please revise the language related to target species as follows: “Target species shall be selected based on species that appropriately reflect contributions to tissue impairments from TMDL responsible parties. At a minimum, three species shall be collected, including white croaker, a sport fish, and a prey fish should be considered for collection if they appropriately reflect contributions to tissue impairments from TMDL responsible parties.” If data from various species, including transient species is desired, clarifying language could be added to the allocation section (as presented in Comment #41) and clarify in the monitoring section that only target species that appropriately reflect contributions to tissue impairments from TMDL responsible parties will be utilized for compliance purposes.</p>	
A52	BPA pg26	<p>The estimated timeline to complete an individual structural BMP project, based on the implementation of nine City of Los Angeles Proposition O projects, is five years. However, this timeframe does not include the time to identify a funding source for the projects or the time to identify proper siting of projects. It will take multiple years to develop an implementation plan, secure agreements between cooperating agencies, and identify and develop funding sources. Additionally, a stressor identification process consistent with the Phase I SQOs must be conducted before investing resources on structural BMPs. As such, it is not reasonable to suggest that structural BMPs will be implemented within Phase I of TMDL implementation. Please revise the discussion related to structural BMPs within Phase I to acknowledge that it is unlikely for the reasons presented above that structural BMPs will be implemented in Phase I.</p>	See response to Comment 30.20 in public response document.

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A53	BPA pg27	The State Lands Commission is named as a party responsible for cleanup of contaminated bed sediments in Dominguez Channel, Torrance Lateral, and Dominguez Channel Estuary. Please clarify why the State Lands Commission is assigned responsibility for contaminated bed sediments but the Montrose Superfund Site is not assigned responsibility in any waterbody?	State Lands Commission is a Trustee Agency with jurisdiction by law over natural resources that are held in trust for the people of the State of California. The California Legislature gave the California State Lands Commission authority over California's ungranted public trust lands (tidelands, submerged lands, and navigable waters) in 1938.
A54	BPA pg27	Please incorporate the following language noted in bold: "Sediment conditions shall be evaluated through the Sediment Quality Objective (SQO) process detailed in the SQO Part 1. If chemicals within sediments are contributing to an impaired benthic community or toxicity, then causative agent(s) shall be determined using SQO recommended procedures, SQO Part 1 (VII.F.). Note that the results of the Phase I SQO stressor identification may result in revisions, additions, or deletions of allocations based on the development of site-specific sediment quality values. "	Staff find the BPA language, as presented, is sufficient.
A55	BPA pg27, 29	There are two Superfund sites located within Dominguez Channel Watershed: the Montrose Superfund Site and the Del Amo Superfund Site. A final remedial decision with respect to certain of the Montrose Superfund Site Operable Units (OUs) that remain contaminated with DDT has not been established. The BPA responsible parties are required to consult with US EPA's Superfund Division in advance of taking actions to remediate bed sediment in the Dominguez Channel and Estuary. However, it is unreasonable to require responsible parties to implement actions to remediate contaminated sediments that are the responsibility of a Superfund site. Further, remedial activities could not occur prior to USEPA making a final remedial decision. The BPA should be revised to acknowledge 1) that cleanup of contaminated sediments associated with the Montrose Superfund Site are not required of the load allocation responsible parties and 2) to the extent that the cleanup is necessary to meet the MS4 responsibilities, such actions are not expected prior to the adoption and implementation of a final remedial decision.	See response to Comment 21.8 in the public response document.

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A56	BPA pg27, 29	The Dominguez Channel Watershed load allocation responsible parties have no control over the USEPA’s timeframe for making a final remedial decision for the Montrose Superfund Site. As such, the timeframe for the load allocation responsible within Dominguez Channel Watershed parties to meet the TMDL should be directly tied to USEPA’s decision making process. Please revise the language on page 27 and the implementation deadlines to link the completion of the implementation of the final remedial decision for the Montrose Superfund Site.	See response to Comment 21.8 in the public response document.
A57	BPA pg30	Please revise the following language of the Special Studies section: <i>“This TMDL recognizes that as work to understand these waters and the chemical, physical and biological processes, continues, the targets, allocations and the implementation actions to reach those targets and allocations may need to be adjusted. In addition, it may be necessary to make adjustments to the TMDL to be responsive to existing and new State policies including, but not limited to, SQO Parts I and II; toxicity policy; possible changes to air quality criteria and other regulations affecting air quality.</i>	Staff find the BPA language, as presented, is sufficient.
A58	BPA pg31	The BPA states on pg 31: <i>“Compliance with the sediment TMDL for metals and PAH compounds shall be based on achieving the loads and waste load allocations or, alternatively, demonstrating attainment of the SQO Part 1 through the triad/multiple lines of evidence approach outlined therein.”</i> Compliance should also be allowed if discharges are meeting the TMDL targets for sediment either in discharges or in bed sediment. If discharges are meeting the TMDL targets for sediment, they should not be causing or contributing to an impairment. Please revise the sentence as follows: <i>“Compliance with the sediment TMDL for metals and PAH compounds shall be based on achieving the loads and waste load allocations or, alternatively, 1) demonstrating attainment of the SQO Part 1 through the triad/multiple lines of evidence approach outlined therein, or 2) demonstrating that TMDL sediment targets are met in the TMDL waterbody, or 3) discharge concentrations meet the</i>	See response to Comment 21.3 in public response document.

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		<i>sediment targets on a three year averaging period.”</i>	
A59	BPA pg31	<p>The BPA states on pg 31: <i>“Compliance with the TMDLs for bioaccumulative compounds shall be based on achieving the assigned loads and waste load allocations or, alternatively, by meeting fish tissue targets.”</i></p> <p>As presented in previous comments, fish tissue levels can be affected by causes outside of the control of the responsible parties to the Harbors TMDLs (i.e., Palos Verdes Shelf). Additionally, compliance should also be allowed if discharges are meeting the TMDL targets for sediment. If discharges are meeting the TMDL targets for sediment they should not be causing or contributing to an impairment. As such, please revise the sentence as follows: <i>“Compliance with the TMDLs for bioaccumulative compounds shall be based on achieving the assigned loads and waste load allocations or, alternatively, by 1) meeting fish tissue targets in species resident to the TMDL waterbody, or 2) demonstrating that TMDL sediment targets are met in the TMDL waterbody, or 3) discharge concentrations meet the sediment targets on a five year averaging period in all waterbodies except for the Los Angeles River Estuary where the averaging period would be set at three years or 4) meeting the Phase II SQOs.”</i></p>	See response to Comment 21.3 in public response document.
A60	BPA pg31, 32	Please change “City of Palos Verdes” to “City of Palos Verdes Estates.” Please change Los Angeles County to Unincorporated Los Angeles County and change “Rancho Palos Verdes” to “City of Rancho Palos Verdes”. It may also help to group the cities based on which subwatershed area they drain to (i.e. – Dominguez Channel freshwater, Dominguez Channel estuary, Torrance Lateral, LA & Long Beach Harbors drainage, and LA River estuary. See Attachment #3, Maps 2 through 4a.	The list of MS4 permittees has been corrected. See, also, response to Comment 21.7 in the public response document.
A61	BPA pg32	Under the three waterbody areas, please specify that the Los Angeles and San Gabriel River group does not include the LA River Estuary. Under the Greater Harbors group, it would be helpful to identify which parties are responsible for the	See, also, response to Comment 21.7 in the public response document.

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		LA River Estuary. Also, it is redundant to list the Cities of LA and Long Beach under the MS4 Permittees and then list the two Cities again separately. If the intent to specify that the Ports of LA and Long Beach are responsible parties, then please simplify this by specifically identifying the Port of Los Angeles and Port of Long Beach as responsible parties. The Port of Los Angeles should also be under the Consolidated Slip subgroup. Under the LA River and SG River group, please specify that this does not include the LA River Estuary.	
A62	BPA pg32	Please provide additional information on the purpose of establishing a separate Consolidated Slip subgroup? The rest of areas that drain directly to the harbors do not have a subgroup and no specific responsibilities are assigned.	The list of Responsible Parties has been modified to clarify the intent, which was stated in the text of the BPA. For bed sediments and fish tissue the responsible parties are those that discharge directly to the waterbody. For the responsibility of the Ports' of Los Angeles and Long Beach for bed sediment in the Ports, see response to Comment 19.8 in the public response document.
A63	BPA pg31-32	Not all responsible parties discharge or contribute to impairments in all parts of the waterbody areas. Please clearly identify where, within a waterbody area, responsible parties have a responsibility to conduct implementation actions	See, also, response to Comment 21.7 in the public response document.
A64	BPA pg33-34	As presented in the BPA, current discharges from watershed sources result in impairments to bed sediments. However, the TMDL schedule essentially requires those responsible parties to concurrently implement watershed BMPs and conduct bed sediment cleanup activities. The implications of this requirement are that remediated bed sediments will be subject to recontamination. Recontamination will necessitate additional cleanup activities, which in effect, will require responsible parties to pay for clean up twice. This can be avoided by requiring cleanup of impaired areas that are not affected by watershed sources during the current implementation schedule (20 years) and require clean up of areas that are affected by watershed sources over the following 10 years. Please revise the Implementation Plan section and schedule to acknowledge the issue with requiring cleanup before	See response to Comment 21.9 in the public response document.

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		sources are addressed through BMPs and extend the implementation schedule for areas affected by watershed sources for 10 years following the completion of Phase III.	
A65	BPA pg33	The TMDL currently provides six months to develop and submit a monitoring plan which is insufficient given the potential need to coordinate with over 20 entities to develop a coordinated effort. The majority of the TMDLs approved in the region, including the LA River Metals TMDL, have considered the effort it takes to coordinate so many responsible parties and have provided at least one year to develop and submit a coordinated monitoring plan. Please revise the requirement to submit a monitoring plan from 6 months to 18 months.	See response to Comment 23.1c in the public response document.
A66	BPA pg33	The TMDL currently provides two years to develop and submit an Implementation Plan and a Contaminated Sediment Plan. This timeframe is insufficient given the potential need to coordinate with over 20 entities to develop a coordinated effort. Additionally, there needs to be a sufficient data set to determine which areas to focus implementation efforts on and which areas to dredge and/or cap. There are no data, for example, to support an evaluation of the level of implementation needed for MS4s or the placement of BMPs.	The Implementation Plan and a Contaminated Sediment Plan should include the plan to collect sufficient data set to determine which areas to focus implementation efforts on and which areas to dredge and/or cap and should identify how the level of implementation needed for MS4s or the placement of BMPs will be evaluated.
A67	BPA pg33	The TMDL currently requires the submittal of an implementation report six months after the submittal of the Implementation Plan. Given that there will unlikely be anything meaningful to report six months after submitting the plan, please revise the requirement for the first report to be due two years after the initial submittal date of the plan and every other year thereafter.	The first annual implementation report will be due 3 years after the effective date of the TMDL.
A68	BPA pg34	15 years after the effective date is not enough time to complete Phase II of Implementation. We must consider the time necessary for obtaining necessary permits, funding, project design, construction, and infrastructure upgrades for different projects for this TMDL. Therefore, Phase II Implementation will take longer than 10 years. Please reconsider when Phase II should be completed.	15 years was, in fact, targeted to allow sufficient time for obtaining necessary permits, funding, project design, construction, and infrastructure upgrades for the different projects which may be necessary for this TMDL.

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A69	SR pgviii	Threshold Effects Concentration (TEC) and Sediment quality value (SQV) are used many times in the TMDL. Please add these to the list of acronyms.	TEC and SQV are defined in the Staff Report when they are first introduced.
A70	SR	In numerous instances in the Staff Report, the SQOs are referred to as a policy or guidelines. The Water Quality Control Plan for Enclosed Bays and Estuaries – Part 1 Sediment Quality (SQO Part 1) established sediment quality <i>objectives</i> with explicit direction on how the objectives are to be implemented. The Bureau requests that the Staff Report appropriately refers to the sediment quality objectives as objectives and not as guidelines or policies.	Staff find the Staff Report language, as presented, is sufficient.
A71	SR	While the objective for sediment quality is a narrative objective, the SQOs are based on explicit procedures to evaluate and integrate three types of empirical data – sediment chemistry, sediment toxicity, and benthic community conditions. Therefore the SQOs are quantitative, not qualitative. See Comments #100 - #102 for related comments. Throughout the Staff Report, the SQOs are incorrectly referred to as qualitative conditions. The Bureau requests that the SQOs are appropriately described in the Staff Report by removing references to the SQOs as qualitative conditions.	The numeric calculation of SQOs results in an assessment <i>category</i> , not a numeric value, in that sense, the SQOs are qualitative.
A72	SR pg 11	The discussion of analytical units not included in the Harbor Toxics TMDL should include Colorado Lagoon, as it is being addressed by the Colorado Lagoon Pesticides, PAHs, PCB, Metals etc TMDL.	Staff find the Staff Report language, as presented, is sufficient.
A73	SR pg 12	Is San Gabriel River Estuary included in this TMDL? It is shown on Figure 2-1, but not labeled and not identified in the text. Also, is the Long Beach Marina included in the TMDL? It is not 303(d) listed and not covered under the Colorado Lagoon TMDL, but may be impacting water quality in San Pedro Bay. Please clarify. See Attachment #3, Map 1.	The San Gabriel River Estuary is not included in this TMDL. The Long Beach Marina, while not separately assessed at this time, is part of the greater harbor waters.
A74	SR pg	Please show an outline of each watershed included in the TMDL. This would include	Additional maps have been included in the Staff

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	12	Dominguez Channel, Dominguez Channel Estuary, Los Angeles Harbor local drainage, Long Beach Harbor local drainage, Los Angeles River, Los Angeles River Estuary, Long Beach shoreline, Long Beach Marina, San Gabriel River, and San Gabriel River Estuary. Each of these waterbodies drains to San Pedro Bay and should have a watershed outline and list of municipalities/agencies involved with their respective jurisdictional areas within the watersheds. This information is necessary to assess who is responsible for implementing the TMDL.	Report.
A75	SR pg 12	The TMDL states there are 21 municipalities within the TMDL area, but if the entire LA River and San Gabriel River watersheds are being pulled into the TMDL, there will be many more municipalities involved. LA River watershed contains 42 municipalities just in itself. Please re-assess the intended area. See Attachment #3, Maps 2 through 4a.	The statement is correct. The watershed of the Dominguez Channel and the Los Angeles and Long Beach Harbors includes 21 municipalities within and including Los Angeles County.
A76	SR pg 13	San Pedro Bay does not directly receive discharges from Dominguez Channel, as implied in the Staff Report. Dominguez Channel drains into the Consolidated Slip of the Inner Harbor. Please correct.	The statement is correct. San Pedro Bay receives the discharges of the Dominguez Channel, Los Angeles and San Gabriel Rivers.
A77	SR pg 13	The area that drains to the Dominguez Channel (the actual Dominguez Channel watershed) is approximately 72 square miles, not 133. The additional square miles are accounting for the Machado Lake watershed (which is not addressed by this TMDL), and the Los Angeles Harbor local drainage (drainage not to Dominguez Channel, but directly to the Inner Harbor). Please correct. The description of the watershed in the rest of the paragraph is also inconsistent. For example, “the Dominguez Channel drains approximately 62% of the watershed”... of what watershed? Does the Dominguez Channel drain approximately 62% of the Dominguez Channel watershed? Please clarify. See Attachment #3, Maps 2 and 2a.	The statement is correct. The Dominguez Channel Watershed drains an area of approximately 133 square miles in southwestern Los Angeles, which includes the Machado Lake subwatershed. The Staff Report provides an accurate general description of the Dominguez Channel Watershed and discusses the inter-relationship between the Machado Lake subwatershed, and the larger Dominguez Channel Watershed.
A78	SR pg 14	Figure 2-2 refers to Figures 2-6 and Figures 7-11, but these are not included in the Staff Report. Please include the figures in the Staff Report	The references have been deleted for clarity.

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A79	SR pg 14	<p>The TMDL states: “The Terminal Island Treatment Plant discharges secondary-treated effluent to the Outer Harbor and this POTW is under a time schedule order to eliminate their discharge into surface waters.” A similar statement is made on page 59. However, at this time there is no time schedule order in place. Please remove all references to the TIWRP being under a time schedule order.</p> <p>In addition, it is stated that the TIWRP “discharges secondary-treated effluent to the Outer Harbor...”. However, the TIWRP is permitted for discharging Tertiary treated effluent.</p>	See response to Comment 21.2 in public response document.
A80	SR pg 19	<p>The text on pg. 19 states “There are no sediment quality objectives in the Basin Plan or CTR.” This statement is not accurate. The Phase I sediment quality objectives adopted by the State Water Resources Control Board and approved by EPA (effective August 25, 2009) states that Part 1:</p> <p><i>“supersedes all applicable narrative water quality objectives and related implementation provisions in water quality control plans (basin plans) to the extent that the objectives and provisions are applied to protect bay or estuarine benthic communities from toxic pollutants in sediments.”</i></p> <p>Therefore, the Basin Plan contains objectives for sediment quality.</p>	The Basin Plan of the Los Angeles Region does not include sediment quality objectives nor does CTR. The statement is correct.
A81	SR pg 21	2002 303(d) list was mentioned but no details were given in a Table. Please clarify.	The 2002 list was not reproduced in the Staff Report but was referenced. It is included in the list of references.
A82	SR pg 24	<p>The title of the Table 2.7 should be changed from “Table 2-7. 2010 final 303(d) list of individual pollutant impairments by water body.” to “Table 2-7. 2008/2010 final 303(d) list of individual pollutant impairments by water body.” in order to keep consistent with Page 21 and 23 statements.</p> <p>LA Regional Board approved its 2008 303(d) list in 2009. State Board approved 2010 303(d) list in 2010, which contained LA Board’s 2008 303(d) list.</p>	Staff find the Staff Report language, as presented, is sufficient.
A83	SR pg	The impairment assessment for this TMDL has not been conducted using the	Using available sediment triad results (Bight 98,

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	25-37	<p>applicable objectives for sediment – the Phase I Sediment Quality Objectives. While the State Listing Policy has not yet been updated to incorporate the Phase I SQOs, the Phase I SQOs do address exceedances of the receiving water limit, based upon the binomial distribution of the State Listing Policy (Phase I SQOs, Section VII.C). Additionally, it is the intent of the State to revise the Listing Policy to incorporate the Phase I SQOs, per Finding 10 of Resolution No. 2008-0070 (the resolution adopting the SQOs):</p> <p><i>“The State Water Board’s Clean Water Act section 303(d) listing policy was adopted prior to the development of SQOs and without the benefit of the scientific evidence supporting their development. The State Water Board recognizes the need to ensure that the listing policy and this plan are consistent. The State Water Board will, therefore, consider amending the 303(d) listing policy in the future to ensure consistency with this plan.”</i></p> <p>Therefore, when the TMDL is reopened to consider modifications to the targets and allocations, as appropriate, based upon the results of stressor identification and other applicable special studies, the Bureau requests that the impairment assessment is also re-evaluated at that time based upon the Phase I SQOs and applicable revisions to the State Listing Policy. The Bureau also requests that such a statement is included in Section 2.4.</p>	<p>03; WEMAP 99, 05; BioBaseline 2008), we performed an assessment for each saline waterbody using SQO Part I-Direct Effects methodology. An exceedance of SQO Part I was considered for Possibly Impacted, Likely Impacted or Clearly Impacted at each station. Following the CA Listing Policy procedures outlined in Table 3-1 of that document, two or more exceedances per waterbody was interpreted as impaired. These assessment results confirmed impairment within two estuaries and marine waters identified in Table 2-18. The Staff Report and Appendix III have been updated to provide this assessment of sediment triad results compiled per waterbody.</p>
A84	SR pg 25-37	<p>The data are presented based on data source, but no summary table is included to evaluate all data per waterbody per matrix in order to support the findings of impairment. Consistent with Comment #86, the Bureau requests that for each waterbody, a summary table for each matrix (i.e., water, sediment, and tissue) assessed is included that clearly identifies (1) the screening value used to establish impairment, (2) the sample size, and (3) the number of exceedances</p>	<p>The section summarizes available monitoring data for Dominguez Channel and greater Los Angeles and Long Beach Harbor waters for the listed pollutants in water, fish and sediments. The section includes more recent data than the listing data, in some instances, and provides more detail in terms of whether impairments are in water, tissue or sediment. The summary includes water quality, fish tissue, and sediment quality data from various monitoring sources, for the period of 1992 to 2010.</p>

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A85	SR pg 26	Most of the sediment and fish data reviewed for this assessment (Table 2-8) seems old (1994 – 2006 for sediment, 1978-2003 for fish). Newer sediment and fish data should be obtained and reviewed for this assessment.	See response to Comment 20.2 in the public response document.
A86	SR pg 38-41	<p>The Staff Report uses many qualitative descriptions to identify impairments (e.g., “Sediment results for copper and lead were above the State listing policy sediment quality values” without providing the quantitative support – such as what the actual sediment quality values are and the number of samples that exceed the values. Without the quantitative information, it is not possible to determine if the identified impairments are or are not valid.</p> <p>Per Comment #84, the Bureau requests that for each waterbody, a summary table for each matrix (i.e., water, sediment, and tissue) assessed is included that clearly identifies (1) the screening value used to establish impairment, (2) the sample size, and (3) the number of exceedances.</p>	See response to Comment A84 .
A87	SR pg 38-39	<p>Pg. 39 states: “Chlordane and dieldrin have not been measured in recent sediment samples.”</p> <p>Please clarify if this statement means chlordane and dieldrin were not detected in sediment samples or if samples were not collected recently. If chlordane and dieldrin were not measured, please specify the number of samples and the time period of the samples as this impacts the finding of impairment and the establishment of allocations.</p>	Chlordane and dieldrin have not been measured in recent sediment samples (Bight 03). See Table 2-8 in the revised draft Staff Report for a complete list of data.
A88	SR pg 38-39	Pg. 40 of the Staff Report states: “more recent triad studies did not show such elevated (nor threatening) levels of PCBs.” Please clarify the number of samples and exceedances in the more recent triad studies as this impacts the finding of impairment and the establishment of allocations.	See Table 2-8 in the revised draft Staff Report for a complete list of data.
A89	SR pg 39	In Section 2.6.1, the text cites AMEC 2002 but this reference is not included in the reference section. Also, it is unclear if this reference refers to the source of the data or to the sediment quality values used as the basis to establish impairment.	Section 2.6.1 has no reference to AMEC 2002. Section 2.6.2 refers to AMEC 2002 which has now been clarified to refer to POLA/AMEC 2002.

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			These data are discussed, also, in Section 2.4.4.3.
A90	SR pg 39	<p>The Staff Report states: <i>“Toxaphene was originally listed due to elevated levels in mussels and remains impaired until new data shows significant decreases.”</i></p> <p>Section 6.1.3 of the State Listing Policy prohibits the use of Maximum Tissue Residue Levels (MTRLs) and Elevated Data Levels (EDLs) in the evaluation of fish or shellfish tissue data. As the source of the data in the assessment are unclear (Comment #84), it is not possible to determine if this impairment finding is or is not valid.</p>	While toxaphene was listed in 2002 based on exceedances of MTRLs, in 2006 the data were re-evaluated using the OEHHA screening guideline of 30 ug/kg in the State Listing Policy. Five of 12 samples exceeded the screening guideline, indicating impairment. Furthermore, OEHHA has recently revised the guideline to 6.1 ug/kg.
A91	SR pg 24,42	Table 2-7 provides the final 303(d) list and only includes listings for tissue and sediment. Table 2-18 presents the assessment findings but does not distinguish between sediment, tissue, or water column impairments. Therefore, it is not possible to compare the findings of impairment in the TMDL to the 303(d) list or to the TMDL numeric targets to ensure the targets have been established based on identified impairments in the proper media. The Bureau requests that Table 2-7 include any associated water column listings and that Table 2-18 identify impairments by media.	Table 2-7 includes the water column impairments and the table has been clarified.
A92	SR pg 41	The Staff Report states that elevated levels of chlordane have been repeatedly occurring and are associated with sediment toxicity. What is the basis for this statement? No other data are evaluated or presented in order to establish causality from chlordane.	The Staff Report does not state causality but that but that data were “associated.”
A93	SR pg 42	Change “ <u>2010</u> 303(d) list...” to “ <u>2008/2010</u> 303(d) list...” in order to keep consistent with Page 21 and 23 statements.	See response to Comment A82.
A94	SR pg 42	Change “ <u>2008- 2010</u> 303(d) list...” to “ <u>2008/2010</u> 303(d) list...” in order to keep consistent with Page 21 and 23 statements.	See response to Comment A82.

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A95	SR pg 42	Change footnote from “2008/2010 <u>202</u> (d) list...” to “2008/2010 <u>303</u> (d) list...” in order to keep consistent with Page 21 and 23 statements.	See response to Comment A82.
A96	SR pg 42	Lead is identified as impaired in Inner Harbor in Section 2.6.9 but is not included in Table 2-18. Please ensure Table 2-18 is consistent with the findings in Section 2.	Section 2.6.9 refers to Inner Cabrillo Beach. Section 2.6.5 summarizes the Inner Harbor and lead was identified as above guidelines in triad Bight 03 study. Lead is not on the 30(d) list in the Inner Harbor. Table 2-18 is correct.
A97	SR pg 43	Please specify in the header of Section 3.1.1 that the metals targets are for dissolved metals.	Section 3.1.1 states “All metal water targets are for dissolved forms of the metals...”
A98	SR pg 45	Please delete the second sentence of Section 3.2: “In addition, sediment targets are set for sediment benthic community effects.” See Comments #99 - #103 for related comments.	Staff find the Staff Report language, as presented, is sufficient.
A99	SR pg 45-51	Modifications to Section 3.2.1 through 3.2.4 are provided in Attachment 2. Modifications are based upon incorporating Comment #s 100 through #103.	Staff find the Staff Report language, as presented, is sufficient.
A100	SR pg 46	<p>On Page 46, the Staff Report states that the Part 1 SQOs are not numeric, but rather are goal conditions:</p> <p><i>“Whereas these target conditions – “Unimpacted” and “Likely Unimpacted” are the goal conditions, TMDLs and allocations need to be numeric according to federal regulations.”</i></p> <p>The following comment addresses the quantitative basis for the Part 1 SQOs. Comment #101 addresses how the Part 1 SQOs can be expressed numerically. Comment #102 addresses how EPA Guidance requires interpretation of narrative objectives and how the Part 1 SQOs specifically detail how the narrative objective is to be interpreted.</p> <p><u>Quantitative Basis for Part 1 SQOs</u></p>	Staff find the Staff Report language, as presented, is sufficient.

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		<p>The categorization of sediment quality as Unimpacted or Likely Unimpacted is not qualitative. Both categories are based on quantitative assessments of sediment chemistry, sediment toxicity, and benthic community condition. Therefore, the challenge is not that Part 1 SQOs are not numeric, but rather that an approach must be utilized to integrate the three lines of evidence with different types of quantitative data (i.e., an approach must be utilized that essentially “normalizes” the data). The Part 1 SQOs accomplish this integration by categorizing each quantitative line of evidence into a normalized category (e.g., Minimal, Low, Moderate) that then results in a sediment condition that describes whether then sediment is impaired (e.g., Unimpacted, Likely Unimpacted). This categorization does not eliminate the numeric basis for each line of evidence; it merely provides the necessary “normalization” process. The resulting categorizations are not subjective or qualitative. They are based on empirical data.</p> <p>The quantitative basis of the integrated three lines of evidence is also specifically noted in Section V.B of the Phase I SQOs (emphasis added):</p> <p><i>“When the exposure and effects tools are integrated, the approach can quantify protection through effects measures and also provide predictive capability through the exposure assessment.”</i></p> <p>Additionally, the Part 1 sediment quality objectives include procedures for (1) establishing causality from specific chemicals (Part 1 SQOs, Section VII.F) and (2) developing site-specific sediment management guidelines (Part I SQOs, Section VII.H) as the process to estimate the level of pollutant stressor that will meet the narrative objective. The Part 1 SQOs state (Section VII.H):</p> <p><i>“Guideline development should only be initiated after the stressor has been identified. The goal is to establish a relationship between the organism’s exposure and the biological effect. Once this relationship is established, a pollutant specific guideline may be designated that corresponds with minimum biological effects.”</i></p> <p>Therefore, the Part 1 SQOs are quantitative both in the assessment and categorization of sediment quality and in the procedures established to develop site-specific and pollutant specific guidelines to meet the narrative objective.</p> <p>The Bureau requests that Section 3.2.2 through 3.2.4 be replaced by the text provided</p>	

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		in Attachment 2.	
A101	SR pg 46	<p>This comment is related to Comment #100 above regarding the following statement on Page. 46 of the Staff Report: <i>“Whereas these target conditions – “Unimpacted” and “Likely Unimpacted” are the goal conditions, TMDLs and allocations need to be numeric according to federal regulations.”</i></p> <p>This comment addresses how the Part 1 SQOs can be expressed numerically. <u>Numeric Expression of Phase I SQOs.</u> The categorization of sediment quality in the Part 1 SQOs can be expressed numerically. Similar to the water column toxicity approach to numeric targets (expressed as 1 TUc), the proposed alternative sediment quality target is 1 Sediment Quality Unit (SQU) as described in Equation 2. Equation 2: SQU = Sediment Quality Unit = Phase I SQO Station Assessment Whereby: Station Assessment: Unimpacted and Likely Unimpacted = 1 Inconclusive = 2 Possibly Impacted = 3 Likely Impacted and Clearly Impacted = 4 The Part 1 SQOs define the station assessment using six categories: Unimpacted, Likely Unimpacted, Possibly Impacted, Likely Impacted, Clearly Impacted, and Inconclusive. The Part 1 SQOs define Unimpacted and Likely Unimpacted as achieving the protective condition. Sediment quality is defined as degraded for the classifications of Likely Impacted and Clearly Impacted. Possibly Impacted is considered degraded if the stressor identification process does not identify a non-chemical causation of the impacts (i.e., physical factors such as grain size). Inconclusive means that there is disagreement between the lines of evidence and either data are suspect or additional information is needed before a classification can be made. Therefore, SQUs are defined as: 1 SQU = Meets Protective Condition = Unimpacted; Likely Unimpacted 2 SQU = No Determination Can Be Made = Inconclusive</p>	<p>Staff appreciates the creativity of the City.</p> <p>Staff finds that referring to the established categories by numbers (e.g. “Unimpacted” is called “1”) does not make them, in fact, numeric. For example 1 plus 2 equals 3. But “Unimpacted” plus “Inconclusive” does not equal “Possibly Impacted.”</p>

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		<p>= Possibly Does Not Meet Protective Condition = Possibly Impacted = Does Not Meet Protective Condition = Likely Impacted; Clearly Impacted</p> <p>Each classification results from the integration of three lines of evidence (1) benthic community effects, (2) sediment toxicity, and (3) sediment chemistry. Each line of evidence is quantitatively determined and then categorized (i.e., Minimal, Low, Moderate, High) as detailed in the Part 1 SQOs. This categorization step is necessary in order to integrate the three lines of evidence that are based on various types of quantitative data (i.e., it normalizes the data but does not eliminate the quantitative basis). Attachment 4 presents the combinations of the three lines of evidence and the resulting SQUs.</p> <p>The TMDL states that the Part 1 SQOs are not numeric, but rather are goal conditions. The USEPA/Regional Board have chosen as the numeric target for water column toxicity. Both the SQU and the TUC provide a quantitative approach to setting a target that is dynamic. The SQU is determined by the procedures established and defined in the sediment quality objectives for evaluating and integrating three lines of evidence, while the TUC is determined by establishing a no effect concentration defined in various USEPA and State Board policies. Therefore, the SQU approach to sediment quality numeric targets is consistent with the chosen approach for the water column toxicity numeric target.</p> <p>The Bureau requests that Section 3.2.2 through 3.2.4 be replaced by the text provided in Attachment 2.</p>	
A102	SR pg 46	<p>EPA Guidance (<i>Guidance for Developing TMDLs in California, EPA Region 9, January 7, 2000</i>) requires California to interpret narrative objectives in order to develop TMDL numeric targets and states that TMDL writers should consult applicable California implementation procedures for water quality standards (page numbers refer to EPA Guidance cited above; emphasis added):</p> <p><i>Page 3: "In situations where applicable water quality standards are expressed in narrative terms or where 303(d) listings were prompted primarily by beneficial use or antidegradation concerns, it is necessary to develop a quantitative interpretation of narrative standards."</i></p>	See response to Comment A101.

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		<p><i>Page 18: “For many TMDLs, the State will need to interpret narrative objectives, use nonattainment, or (possibly) antidegradation policies quantitatively to develop TMDL numeric targets if no numeric standards are in effect or numeric standards are not designed to address the impairment of concern. Federal regulations do not require the state to adopt TMDL numeric targets as state water quality standards. To assist in interpreting narrative objectives, beneficial use designations, and/or antidegradation policies, TMDL writers should consult applicable California implementation procedures for water quality standards.”</i></p> <p>The SQOs established in Part 1 of the Sediment Quality Plan are narrative but explicitly provide the methods and procedures to interpret the objective and states: <i>Pollutants in sediments shall not be present in quantities that, alone or in combination, are toxic to benthic communities in bays and estuaries of California. This narrative objective shall be implemented using the integration of multiple lines of evidence (MLOE) as described in Section V of Part 1.</i></p> <p>Therefore, consistent with EPA Guidance, the interpretation of the narrative objective must be consistent with the applicable California implementation procedures for water quality standards, which are explicitly detailed in the Part 1 SQOs.</p> <p>The Bureau requests that Section 3.2.2 through 3.2.4 be replaced by the text provided in Attachment 2.</p>	
A103	SR pg 47-51	<p>The sediment numeric targets are not consistent with the established objectives as follows:</p> <ul style="list-style-type: none"> • The lines of evidence are used separately and are not integrated. • Only a subset of categories are utilized for the sediment toxicity and benthic community lines of evidence. • The sediment chemistry line of evidence is replaced with ERLs. • The stressor identification process is not considered or implemented to identify impairments to sediment quality before establishing allocations for identified stressors. <p>The Phase I sediment quality objectives state the importance of integrating the three</p>	See response to Comment A101 .

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		<p>lines of evidence and how such integration results in the ability to quantify protection and provide predictive assessments (Section V.B):</p> <p><i>“None of the individual LOE is sufficiently reliable when used alone to assess sediment quality impacts due to toxic pollutants. Within a given site, the LOEs applied to assess exposure as described in Section V.A may underestimate or overestimate the risk to benthic communities and do not indicate causality of specific chemicals. The LOEs applied to assess biological effects can respond to stresses associated with natural or physical factors, such as sediment grain size, physical disturbance, or organic enrichment.</i></p> <p><i>Each LOE produces specific information that, when integrated with the other LOEs, provides a more confident assessment of sediment quality relative to the narrative objective. When the exposure and effects tools are integrated, the approach can quantify protection through effects measures and also provide predictive capability through the exposure assessment.”</i></p> <p>Therefore, the Bureau requests that Section 3.2.2 through 3.2.4 be replaced by the text provided in Attachment 2.</p>	
A104	SR pg 49	<p>Part 1 of the SQOs requires that the narrative objective be implemented through the integration of the three lines of evidence. If sediment quality is determined to be degraded, the objective requires that stressor identification is conducted in order to establish causality. After causality has been established, the objectives require development of site-specific and pollutant-specific management guidelines to estimate the level of pollutant stressor that will meet the narrative objective. Part 1 of the SQOs includes specific methods and procedures to interpret the narrative objective. These specific procedures do not include the use of ERLs. Therefore, the TMDL should clearly state that the Part 1 SQOs will require stressor identification and development of site-specific and pollutant specific management guidelines that will replace the ERLs. The TMDL should also clearly state that this process cannot be completed prior to adoption of the TMDL but that revisions, additions, and/or deletions to the numeric targets are anticipated based upon the results of the stressor identification process. The TMDL should also state that a</p>	See response to Comment A101 .

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		<p>presumption of causality from the chemicals identified in Table 3-7 has not been established.</p> <p>Therefore the Bureau requests that Section 3.2.4 be revised as presented in Attachment 2.</p>	
A105	SR pg 50	<p>The following sentence needs to be revised: “The Chlordane, Dieldrin, Toxaphene, DDT and PCBs sediment targets presented in Section 3.1.2 may need to be revised in the future to attain the fish tissue targets.” Section 3.1.2 – Water: Total metals, does not contain sediment target. Please put incorporate the correct section number.</p>	The Staff Report has been corrected.
A106	SR pg 51	<p>The last paragraph of Section 3.2.4 pertains to indirect (bioaccumulative effects) and should be included under Section 3.3 – Fish Tissue for the Protection of Human Health. Additionally, the paragraph appears to have an incorrect cross reference to section 3.1.2.</p>	See response to Comment A105 .
A107	SR pg 51	<p>In the first sentence of Section 3.3, change “...which are recently developed...” to “...which were recently developed...”</p>	Staff find the Staff Report language, as presented, is sufficient.
A108	SR pg 52	<p>In 2009, an Independent Advisory Panel (Panel) of experts, convened by the National Water Research Institute, reviewed the appropriateness of sediment-based numeric targets for the Newport Bay Watershed Organochlorine Compounds TMDL (NWRI, 2009). For toxaphene, the Panel concluded:</p> <ul style="list-style-type: none"> • Current science does not yet permit setting reliable targets for toxaphene to the extent possible for other contaminants. Toxaphene is a complex mixture of an unknown number of congeners (250 to >670) (ATSDR, 1996), and the octanol-water partition coefficients will differ for each chlorinated compound, with estimated partitioning coefficients varying from 3.3 to 6.44. <p>The toxaphene source, degree of weathering, and extent of biological dechlorination may all affect the partitioning coefficient.</p>	<p>See response to Comment 20.3 in the public comments response document.</p> <p>In addition, see response to Comment 36.4 and 36.9 in the public comments response document.</p>

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		<ul style="list-style-type: none"> • Since all 600+ chemicals will have different partitioning coefficients and different toxicities, it is not possible to determine a “correct” partitioning coefficient, and a conservative approach is appropriate, since it is not possible to identify which component is responsible for toxicity • It is likely that bioaccumulation is a greater concern than direct toxicity, and there are no data to suggest that water toxicity results from the same components that bioconcentrate. The more lipophylic components are the most likely to bioconcentrate, while more water-soluble components are more likely to be responsible for aquatic toxicity. • Toxaphene, while a chemical of concern, is generally less problematic than DDT. However, it is more challenging with regard to the development of site-specific media and organism target levels for regulatory monitoring programs. <p>The final report of the Panel supports the approach suggested in Comment #10 through #13 to establish numeric targets based upon fish tissue concentrations only and to utilize the linkage analysis to translate the tissue targets into sediment-based allocations. While the complexities associated with developing sediment-based concentrations to achieve certain fish tissue values would not be obviated with this approach, the large degree of uncertainty would be mitigated by focusing the targets on a direct measure of impairment – the tissue values – and not relying on the surrogate measure of impairment – the sediment concentrations.</p> <p>Additionally, as the TMDL allows for compliance to be achieved either by attaining allocations or by attaining tissue concentrations, this approach is consistent with the existing TMDL framework.</p> <p>Therefore, the Bureau requests that any sediment targets associated with fish tissue levels be removed from the numeric targets section.</p>	
A109	SR pg 52	The Staff Report states that the tissue residue values presented in Table 3-9 are goals. As no impairment has been identified for birds or harbor seals, the Bureau supports the decision to not establish numeric targets for tissue residues.	Comment noted.
A110	SR pg	There are at least 40 cities in the Los Angeles River watershed that are a part of the	The list includes those permittees in the

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	54	LA County MS4 permit. Please verify and revise.	Dominguez Channel or Greater Harbor Waters watersheds.
A111	SR pg 57	<p>The Staff Report states on page 57 that: “...current stormwater discharge from the Dominguez Channel watershed appears to be a minimal source of contamination to the Dominguez Channel and Greater Harbor Waters.”</p> <p>Yet, the TMDL requires reductions in DDT levels ranging from 71%-99% (pg. 101). Such reductions are disproportionate to the source from stormwater discharges. Reductions should be focused on sources that are the primary source of contamination. See Comments #14, #49 and #128 for related comments. As requested in Comment #40, adding a method of compliance that requires a demonstration that discharge concentrations meet the TMDL sediment targets on a five year averaging period (three years in the Los Angeles River Estuary) would eliminate such disproportionate reductions while still ensuring the TMDL targets will be attained.</p>	See response to Comment 21.3 in the public response document.
A112	SR pg 59	Please include/list the Los Angeles International Airport (LAX) as an Industrial Permittee. Approximately 950 acres of LAX property drain to the Dominguez Channel, which is almost 4% of the watershed area.	The Los Angeles Airport is an industrial permittee and therefore, included.
A113	SR pg 60	Table 4-2 categorizes the potential significant contribution of various sources as high, medium, and low yet does not provide any rationale or basis for these categorizations. For municipal stormwater, the categorization of high is inconsistent with the statement on page 57 that states stormwater is an insignificant source. As such, the Bureau requests that the last column in Table 4-2 be removed.	Staff find that the ‘high, medium and low’ are a useful summary statement of potential.
A114	SR pg 61	LA county MS4 permit was issued to LA county flood control district and 84 cities Table 4-2 lists 24 MS4 permits. Should it be 1 MS4 permit and 85 Permittees? Please explain.	The list includes those permittees in the Dominguez Channel or Greater Harbor Waters watersheds.

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A115	SR pg 67	The Los Angeles River watershed boundary is incorrect. The watershed boundary line is much too smooth and does not reflect the actual drainage. A map of the correct LA River watershed boundary has been provided for your reference in Attachment #3, Map 1. Also, the Machado Lake watershed boundary is incorrect as it includes drainage areas that are south of the Lake and drain directly to the harbor.	This map shows the watersheds as modeled. Additional maps of jurisdictions have been included in the revised Staff Report.
A116	SR pg 94-95	The paragraph on page 94 (directly below Table 6-10) is included in the Margin of Safety section, but the text discusses establishment of concentration-based allocations. Should it be in Section 6.4.3 (Allocations – Direct Effects)?	The Staff Report has been modified appropriately to include margin-of-safety information only within that section.
A117	SR pg 94-95	Please clarify why the allocations for cadmium, chromium, and mercury are concentration based while the allocations for other metals are load based.	Cadmium, chromium, and mercury apply to only a few of the waterbodies.
A118	SR pg 94-95	Please identify the responsible parties that are assigned the sediment-based WLAs for cadmium, chromium, and mercury, presented in Table 6-11.	Mercury applies to both Consolidated Slip and Fish Harbor; Cadmium applies to Dominguez Channel Estuary and Consolidated Slip; chromium applies to Consolidated Slip only.
A119	SR pg 95	<p>Four goals are presented for the direct effects allocations. Three of the goals are based on the lines of evidence of the SQOs but are presented individually. As the SQOs are based on the integration of the three lines of evidence, the Bureau requests that the goals appropriately reflect the SQOs as follows:</p> <p>The allocations were designed to achieve the following specific goals:</p> <p>1. Sediment quality that is protective of the benthic community, which can be achieved by:</p> <p>a. 1-Reduction of sediment toxicity (as measured by both. lethal and sub-lethal tests),</p> <p>b. 2-Improvement in benthic organism communities,</p> <p>c. 3-Minimization of the negative impact of sediment chemicals,</p> <p>2. 4-Reduction of pollutant loads</p>	Staff find the Staff Report language, as presented, is sufficient.

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A120	SR pg 95	<p>The last paragraph of page 95 discusses the requirement for “demonstrable improvement in SQO lines of evidence” that must be provided along with progress in stressor ID studies. While the Bureau supports pursuing activities that will <i>lead to</i> improvement in sediment quality concurrently while conducting stressor identification, it is unlikely that demonstrable improvement can be measured in the same timeframe as the stressor identification process. Per the Implementation Plan (Section 7 of the TMDL), Phase I implementation activities (including stressor identification) must be completed within 5 years of the effective date of the TMDL. However, as noted in Comment #52, construction of structural BMPs is not feasible within the first five years of the TMDL. Additionally, even if structural BMPs were installed by the end of the fifth year, it would take some time before the BMPs were able to have a demonstrable impact on sediment quality. The TMDL monitoring program (Section 7.6.2) reflects the time needed to measure improvement in sediment quality by requiring the SQO evaluation to be performed once every five years. Therefore, the Bureau requests that the last paragraph of page 95 be modified as follows:</p> <p>Whereas certain chemicals are identified in these TMDLs as pollutants of concern, future site specific studies may yield results that point to other toxicants as causative agents. However, if the stressor identification process is implemented, this TMDL also requires that responsible parties concurrently pursue activities that support these TMDLs and the goals defined above. These concurrent activities are detailed in the Implementation Plan in Section 7 of this TMDL. The SQO—Direct Effects Policy provides for sediment stressor ID studies, which may be pursued as long as stakeholders/responsible parties are concurrently pursuing activities supporting these TMDLs and the goals defined above. Demonstrable improvement in the SQO lines of evidence must be provided along with progress in stressor ID studies. Progress solely in stressor ID studies is not an acceptable substitute; thus sediment quality improvements must be concurrent.</p>	Staff find the Staff Report language, as presented, is sufficient.
A121	SR pg	The second paragraph of Section 6.5.1 describes the approach to setting allocations	Staff find the Staff Report language, as presented,

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	96	<p>for the bioaccumulative compounds. ERLs are selected as the basis for the allocations because they are lower concentrations than the associated sediment targets chosen for the bioaccumulative compounds in the Numeric Targets section. ERLs are based on direct toxic effects, not bioaccumulation. Therefore, this paragraph should (1) accurately reflect and clarify that for compounds where the direct effects allocations are lower than the bioaccumulative allocations, the direct effects allocations are anticipated to therefore also address bioaccumulation or (2) establish bioaccumulative allocations for all compounds utilizing the associated bioaccumulative sediment targets. The first approach recognizes that the TMDL is establishing allocations for the same chemicals based on both direct effects and bioaccumulation and conflicting allocations (one higher, one lower) are anticipated. The second approach recognizes that after stressor identification is conducted, the bioaccumulative chemicals may not be identified as causative agents for direct toxicity and it may be beneficial during the TMDL reopener to incorporate calculated bioaccumulation-based allocations.</p> <p>This distinction is important because the ERLs have no functional relationship to protection of fish or associated contaminate levels in fish. In 2009, an Independent Advisory Panel (Panel) of experts, convened by the National Water Research Institute, reviewed the appropriateness of sediment-based numeric targets for the Newport Bay Watershed Organochlorine Compounds TMDL (NWRI, 2009). In reviewing the appropriateness of selecting ERM as numeric targets and allocations, the IAP report states:</p> <p><i>“The Panel notes that TELs and ERMs are used in the organochlorine TMDLs as a practical estimate of contaminant levels that might lead to the bioaccumulation of sediment-borne contaminants in higher trophic levels. However, no functional relationship exists between contaminant levels associated with toxicity to benthic organisms due to direct exposure to contaminated sediments and those associated with bioaccumulation.”</i></p> <p>The IAP recommended:</p> <p><i>“Sediment, water, and tissue targets should be derived as part of an integrated modeling approach that incorporates specific endpoints and information about the</i></p>	<p>is sufficient.</p> <p>In addition, please see response to Comment 20.1 in the public response documents.</p>

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		<p><i>entire foodweb.”</i> Therefore, the Bureau requests that modifications to this paragraph are made as suggested above.</p>	
A122	SR pg 101	Please provide justification for selecting Trophic Level 4 fish as the basis demonstrating compliance with the TMDL. Also, please identify the appropriate species associated with Trophic Level 4.	TL4 are top predators and will show the greatest concentrations of bioaccumulatives.
A123	SR pg 92, 98	Both tables present the overall required reduction necessary to achieve the TMDL. However, neither table provides the reduction necessary by responsible party/source. In order to assess the impact of this TMDL, the Bureau requests that both tables present the required percent reduction by source.	Staff find the Tables present the needed information.
A124	SR pg 101	Based on Comments #99 and #103, modifications to the last paragraph on page 101 are necessary in order to accurately reflect the integrated basis for the Phase I SQOs: Direct Effects targets are presented in flexible manner; that is, future stressor identification site-specific studies may yield different sediment quality values that correlate with desired sediment quality toxicity and benthic community goals. These TMDLs will need to be revisited and modified (i.e., additions, deletions, revisions to specific chemicals and/or concentrations) if toxic pollutants outside the scope of these TMDLs are identified as based on the identification of causative agents.	Staff find the Staff Report language, as presented, is sufficient.
A125	SR pg 101-102	The establishment of Phase II SQOs for indirect effects (bioaccumulation) by the State Water Resources Control Board are anticipated. Please include the following statement in the last paragraph of Section 6.6 on pages 101-102: The establishment of Phase II SQOs for indirect effects (bioaccumulation) by the State Water Resources Control Board are anticipated. Therefore, these TMDLs may need to be revisited and modified in order to incorporate the new objectives.	Staff find the Staff Report language, as presented, is sufficient.
A126	SR pg 106	Please clarify the intent of the 3rd bullet stating the implementation of effective TMDLs in LA River, SG River, and Machado Lake in Phase I. The staff report has	These TMDLs are being implemented and will likely contribute reductions of loadings to the

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		in other places stated that these areas are not included in this TMDL.	Greater Harbor Waters.
A127	SR pg 107	<p>The last paragraph on Page 107 refers to improvement in impairments in benthic community or sediment toxicity. The Phase I SQOs are based on sediment quality, resulting from an integration of sediment chemistry, sediment toxicity, and benthic community data. Additionally, more information regarding the stressor identification process – and potential modifications to the TMDL – is requested. The following language is proposed to replace the last paragraph under Phase I for Section 7.3.1. No causality has been established for the chemicals assigned sediment-based allocations or at the allocation concentration and/or loads. The allocations assigned in the TMDL are selected as the best available information at this time. However, causality will be established through the stressor identification (ID) process as outlined in the Phase I SQOs. Consistent with the Phase I SQOs when sediments fail to meet the objective, a stressor ID is to be conducted in order to (1) confirm and characterize pollutant-related impacts, (2) identify the pollutants(s), and (3) identify the source(s) of pollutant(s). Completion of the stressor ID process will result in information that may necessitate revisions to targets and allocations, impacting the type, location, and extent of subsequent implementation measures. Therefore, the stressor ID process will occur during Phase I. If appropriate, the TMDL will be reconsidered by the Regional Board at the end of Phase I to incorporate the results of the stressor ID into the targets and allocations sections. Incorporation of the results could result in the following changes:</p> <ol style="list-style-type: none"> 1. the removal of specific constituents – if constituents assigned targets and allocations are found to not be causing or contributing to the impairment based on the stressor ID process the targets and allocations for the specific constituents will be removed from the TMDL. 2. the addition of constituents – if constituents not assigned targets and allocations are found to be causing or contributing to the impairment based on the stressor ID process, targets and allocations for the specific constituents will be added to the TMDL; and/or, 	Comment noted.

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		<p>3. revisions to allocations for specific constituents – if constituents assigned targets and allocations are found to be causing or contributing to the impairment based on the stressor ID process at a concentration higher or lower than the existing targets and allocations, the targets and allocations for the specific constituents will be revised.</p> <p>Consistent with the process specified in the Phase I SQOs, dischargers who opt to participate in the stressor identification process must submit a Draft Stressor Identification Work Plan to the Regional Board EO for approval.</p>	
A128	SR pg 112	<p>There is some inconsistency on what DDT targets the Montrose Superfund Site has to meet versus the responsible parties in the TMDL for the Torrance Lateral and Dominguez Channel watersheds. Information from the EPA Region 9 website regarding the Montrose Superfund Site states that “DDT in soil does not pose a danger from short-term or casual contact until DDT levels in the soil are at least 500 ppm” and that “EPA considers the risks of health problems from exposure to DDT in soil below 170 ppm to be low, even to someone swallowing the soil every day for 30 years.” Please clarify why are the responsible parties in the TMDL being held to the standard of meeting 1.58 ppm in marine sediment if the EPA states that this poses no risk to human health? It further states on the EPA’s website that EPA’s residential preliminary risk goal (PRG) for DDT in soil is 1.7 ppm and the industrial PRG is 13 ppm. How can it be reconciled that the industrial PRG is so much higher than the TMDL target? Will this unfairly impact the TMDL responsible parties? Also, in conversations with EPA staff, it was noted that so far, monitoring shows very little to no transport of DDT from the Montrose site to the Torrance Lateral. If that is the case, for a site that EPA states is “contaminated with DDT at soil levels averaging 1000-2000 ppm and up to several tens of thousands of ppm [at the 1st 4-6 feet below the ground surface]”, where the current discharge is little to none, is it possible to expect that the current DDT discharge from the MS4 dischargers, which does not likely contain soil with such high DDT levels, is little to none? Considering that the cost to analyze organic pollutants in sediment is very high, it makes sense to reconsider the responsibility of the MS4 permittees in this TMDL if the first three</p>	<p>Commenter is referring to DDT levels in dry soil to protect human exposure from the residential soil. DDT targets in the TMDL are based on protecting aquatic organisms through direct effects and both wildlife and human health through the bioaccumulative pathway. Exposure to DDT and its metabolites arising from marine sediments involves more complex mechanisms and sensitive receptors than residential soil.</p> <p>Executive Officer may reduce, increase, or modify monitoring and reporting requirements, as necessary, based on the results of the TMDL monitoring program (last paragraph on page 20 of the tentative BPA). The discharger can submit the request to reduce monitoring frequency with associated evidence showing ongoing compliance with the assigned allocations for the EO consideration on a case by case basis.</p>

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		<p>years of data show no contributions of toxic pollutants that exceed the TMDL targets. After 3 years of monitoring and no contribution of contamination shown, MS4s should be allowed to reduce monitoring and implementation actions for this TMDL as they are not needed and an unnecessary cost burden. This change can be reflected under the Monitoring and Implementation sections of the TMDL for the MS4s.</p>	