Ports' Additional Basin Plan Amendment, Staff Report, CEQA Comment Summary and Responses
Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants TMDLs

Table 1. Basin Plan Amendment, Staff Report and CEQA Comment Files

B1. Port's Basin Plan Amendment Table
B2. Port's Staff Report Table
B4. Port's CEQA Comment Table

Table 2. Comments and Responses

No.	Report Page	Comment	Response
	Ports' Attachment "Technical Comments" Table 1 Basin Plan Amendment Comments		
B1.1	2	BPA states that "These impairments exist in one or more environmental media – water, sediment, or tissue…"; however, Table 2-7 of the Staff Report only lists tissue and sediment impairment. Water column is not impaired and should be noted. The assessment does not include the latest data or a review of the sediment condition based on California's SQOs. See comments in Table 2 regarding data quality and assessment of current conditions. Please see Attachments 1, 2, and 8 regarding current conditions.	The Water Column is impaired for toxicity and metals in the Dominguez Channel freshwater. Table 2-7 will be clarified in the Staff Report. The short Basin Plan Amendment statement of the problem is not intended to be exhaustive.
B1.2	2	The sediment quality guidelines of Long et al. (1995) are not appropriate for sediment numeric targets. A detailed memorandum with key supporting references (Attachment 3) documents the concerns with using ERL values in TMDLs. A summary of the key points of our concern include the following: 1. ERLs and ERMs are inappropriate. As stated by Long and Morgan (1990), "These guidelines were not intended for use in regulatory decisions or any other similar applications." Instead, as specified by Long et al. (1995) and NOAA (2010), ERLs and ERMs were designed to be informal, screening level tools that could be used to evaluate areas that might need further investigation. 2. It is incorrectly assumed that ERLs are based on a cause-effect relationship, or	See response to **Comment 38.7a** in the public comments response document.

No.	Report Page	Comment	Response
		one in which increasing concentrations of a measured chemical constituent cause increasing levels of a biological effect (e.g., an increase in toxicity). Instead, ERLs represent chemical concentrations at the low end of a range that co-occur with a biological effect. While correlations may be statistically significant between a chemical in exceedance of an ERL and a biological effect, these relationships may be coincidental and not causal. Consequently, it is entirely possible, and we believe data actually demonstrate, that sediment chemical levels are considerably greater than the ERL that would be sufficient to achieve water quality goals. 3. The lack of a cause-effect relationship is due in large part to the fact that there are multiple chemicals in the harbor environment. The chemical-specific ERLs are confounded by other co varying chemicals, factors other than anthropogenic chemicals (e.g., ammonia, sulfide, and grain size), and non-measured chemicals (i.e., pyrethroids). As a result, the cause of toxicity cannot be assigned to any particular chemical. 4. ERLs have insufficient predictive ability for setting remedial goals, because of the significant frequency of false positives and negatives (exceedances of the ERL with no biological effects, and concentrations below the ERL in the presence of effects, respectively; Long et al. 1995; Long et al. 1998; NOAA 2010; Field et al. 1997; O'Connor et al. 1998; Shine et al. 2003; Vidal and Bay 2005). 5. Data from the harbor itself demonstrate that ERLs are overly conservative for this site. Sediment chemistry and toxicity data collected as part of the Bight 2008 program indicate numerous ERM and ERL exceedances with little corresponding toxicity (toxicity was found in one of 13 samples using the in amphipod toxicity test and in zero of 13 samples using the bivalve development test). Together, these issues indicate that ERLs are inappropriate for use as numeric targets. See comments in Table 2 regarding ERLs. Please see Attachments 3 and 4.	
B1.3	2-3	The tables should clearly specify that criteria are for freshwaters of Dominquez Channel.	These are the targets that the TMDL has established. How they are applied is provided in the allocations and implementation sections.
B1.4	3	"Water Quality Criteria Established in CTR for Metals and Organics" should	The CTR equations are discussed in the TMDL

No.	Report Page	Comment	Response
		include the equations listed in CFR, Title 40: Part 131, Section 131.38 for copper, lead, and zinc. The use of the median hardness from 2002-2011 of 49 mg/L to set a single value is misleading, as the water quality criteria for copper, lead, and zinc established in the CTR are hardness dependent and will vary according to hardness. LACDPW data show that the hardness at S28 ranged from 15.2 to 190 mg/L under wet weather conditions. See comments in Table 2 regarding CTRs.	Staff Report. See response to **Comment 21.1** in the public comments response document for a fuller discussion of CTR issues.
B1.5	4	The statement, "…sediment quality guidelines of Long and Arch ET&C, which are recommended by the State Listing Policy", is misleading, as these SQGs are acceptable guidelines as screening values for assessment. As stated by Long and Morgan, "These guidelines were not intended for use in regulatory decisions or any other similar applications." Instead, as specified by Long et al. (1995) and NOAA (2010), ERLs and ERMs were designed to be informal, screening level tools that could be used to evaluate areas that might need further investigation. See comments in Table 2 regarding ERLs. See Attachments 3 and 4.	Section 6.1.3 of the "Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List" (Listing Policy) specifically includes sediment quality guidelines for sediments to represent standards attainment and beneficial use attainment for making listing decisions. .
B1.6	4	The use of ERLs as numeric targets to set loading capacity and allocations is inappropriate and, at best, should be identified as interim targets and SQVs (as seems to be the intent of the statement that says that "This TMDL anticipates that revisions to specific sediment quality targets may be determined by development of site-specific sediment quality values"). See comments in Table 2 regarding ERLs. See Attachments 3 and 4.	See response to **Comment 38.7a** in the public comments response document. The TMDL does provide additional flexibility by accommodating use of site-specific SQV, if developed.
B1.7	5	BPA indicates that "sediment targets were determined by narrative standards of this Basin Plan, the SQO Part 1 and the sediment quality guidelines of Long and Arch, ET&C…" The intent to use SQOs in the process is appropriate; however, the BPA does not fully explain that the multiple lines of evidence in the SQO Part 1 were separated and used individually to set numeric targets. This approach is inconsistent with the direction of the SQO that all three lines of evidence must be used together. See comments in Table 2 addressing the use of SQOs to set numeric targets.	While the Staff Report discusses the alternative and utility of evaluating the three LOE separately, this TMDL, for compliance, uses the three LOE together as described in the SQO Policy.

No.	Report Page	Comment	Response
B1.8	5	FCGs (OEHHA 2008) used in the TMDL were not intended to be used as numeric targets. The technical basis for applying these FCGs as the fish tissue numeric targets for DDT and PCBs has not been established. See all comments regarding fish tissue targets in Table 2. Also, see Attachment 5 for additional discussion. In numerous places in their 2008 document, OEHHA indicates that FCGs were not intended to be screening values or numeric targets and that other agencies intending to use these numbers should either consult OEHHA for advice in their application or modify the tissue concentrations on a project and site-specific basis. For example: • "Agencies developing fish tissue-based criteria may choose to alter one or more of these assumptions in order to meet their own specific goals or requirements" (OEHHA 2008, page 39) • "OEHHA has developed FCGs using standard exposure factors and a consumption rate of 8 oz (6 oz after cooking), to provide a starting point for other agencies…." (OEHHA 2008, page 3) • "…because of the unique health benefit associated with fish consumption, the advisory process should be expanded beyond a simple risk paradigm in order to promote the overall health of the consumer" (OEHHA 2008, page 53) The only justification used for the application of FCGs as fish targets is if FCGs were "recently developed by OEHHA in June 2008 to assist other agencies to develop fish tissue-based criteria with a goal toward pollution mitigation or elimination and protect humans from consumption of contaminated fish or other aquatic organisms". OEHHA (2008, page 1) states that: "Fish Contaminant Goals (FCGs) are estimates of contaminant levels in fish that pose no significant health risk to individuals consuming sport fish at a standard consumption rate of eight ounces per week (32 g/day), prior to cooking, over a lifetime and can provide a starting point for OEHHA to assist other agencies that wish to develop fish tissue-based criteria with a goal toward pollution mitigation or elimination". That is, these FCGs are provided as a starting point. The TMDL uses	Fish Contaminant Goals are the appropriate method of setting the goals for contaminants in fish. See response to **Comment 20.3 and 36.4** in the public comments response document.

No.	Report Page	Comment	Response
		them inappropriately as an endpoint. The TMDL also indicates that fish targets provide an additional MOS. "Use of fish tissue targets is appropriate to account for uncertainty in the relationship between pollutant loadings and beneficial use effects (EPA, Newport Bay TMDL, 2002)". The over-conservatism that results from the assumptions used in the TMDL is an inappropriate use of the MOS. The results for sediment and fish tissue targets are more stringent than necessary to meet water quality goals. OEHHA (2008) provides more realistic values, the ATLs, that are still protective of human health. ATLs are more appropriate for the TMDL than FCGs. OEHHA (2008) developed ATLs in parallel with FCGs. These values were designed to protect human health by incorporating the health benefits of fish consumption into the risk analysis: "Advisory Tissue Levels (ATLs), while still conferring no significant health risk to individuals consuming sport fish in the quantities shown over a lifetime, were developed with the recognition that there are unique health benefits associated with fish consumption and that the advisory process should be expanded beyond a simple risk paradigm in order to best promote the overall health of the fish consumer." (OEHHA 2008, page iii). Unlike FCGs, ATLs include the benefits of fish consumption (e.g., protection from cardiovascular disease, stroke, cognitive impairment, etc.; OEHHA 2008) in the advisory process. OEHHA indicates that ATLs, while higher than FCGs, confer no additional health risk to fish consumers, because they take into account the health benefits of eating fish. ATLs are one of the criteria that will be used by OEHHA for issuing fish consumption guidelines. Because ATLs are considered protective of human health, there is no reason for using the more conservative FCGs relied upon in the TMDL. Further support of ATLs is provided in the recent update to fish consumption advisories for southern	

No.	Report Page	Comment	Response
		California coastal areas; OEHHA compared fish data to ATLs to develop safe eating guidelines (OEHHA 2009).	
B1.9	6	Several issues exist with the source assessment presented in the Staff Report. Major sources were not included in the assessment (e.g., Machado Lake Watershed and NPDES dischargers of Haynes and Alamitos stations). See comments in Table 2 addressing source assessment and detailed discussions in Attachments 6 and 7.	The Basin Plan Amendment has been clarified. "The Inner Harbor receives the bulk of the loading from the nearshore watershed <u>of the waterbodies considered in this TMDL</u>"
B1.10	6	The statement, "The major nonpoint source of pesticides and PCBs to the greater Harbor waters is the current sediments" is NOT supported by the allocations presented in Table 6-12 of the Staff Report, which for example, shows air deposition load allocation for DDTs greater than the TMDL for all waterbodies. This statement should be deleted. See comments in Table 2 related to source assessment and linkage analysis.	The BPA has been clarified. "~~The~~ <u>A</u> major nonpoint source of pesticides and PCBs to the greater Harbor waters is the current sediments"
B1.11	6	The statement, "The re-suspension of these sediments contributes to the fish tissue impairments", is incorrect. No direct linkage has been made between specific waterbody sediments and fish tissues. This statement should not be included in the BPA until the level of contribution is quantified. The linkage analyses conducted are not sufficient to demonstrate that sediment contaminant flux is the major nonpoint source of pesticides and PCBs to the greater harbor waters; the relative contributions between the watershed source and the resuspension/redistribution of existing bed contaminants cannot be differentiated. More importantly, the linkage between sediment and fish is key to setting a sediment concentration target to protect fish consumers. It is premature to determine the necessary reductions in sediment bioaccumulative compound concentrations prior to understanding what proportion of fish body burdens are derived from harbor sediments. See comments in Table 2 related to source assessment, linkage analysis, and fish tissue targets.	The full discussion of fish tissue impairment is in the Staff Report. 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.

No.	Report Page	Comment	Response
			When the Sediment Quality Control Plan – Part 2, is complete, the TMDL may be reconsidered to accommodate the new policy.
B1.12	6-7	The statement, "The Inner Harbor receives the bulk of the loading from the nearshore watershed" is incorrect. Based on the percent of total loading in Table 5-2 of the Staff Report, Alamitos Bay receives the largest pollutant loadings of metals from the Nearshore Watershed, with 55 to 60 percent of the metal loadings. In general, the Inner Harbor receives the largest pollutant loadings of organics. In addition, Alamitos Bay has the largest drainage area. The text describing the watershed loadings should be revised accordingly.	See response to **Comment B1.9.**
B1.13	7	The table should have footnotes indicating the number of wet weather days or flow criteria used to establish the loadings. See comments in Table 2 addressing linkage analysis (Table 5-1; same table as presented here).	A full discussion of the Linkage Analysis is in the Staff Report. Model development throughout Los Angeles waters relied on regionally-calibrated metals parameters, stormwater event mean concentrations (EMCs) for PAHs, predicted sediment loads and receiving water sediment concentrations for DDT and PCBs as well as simulated flows to estimate pollutant loadings. The simulation time frames for LSPC watershed model were expanded to 1995-2005 to generate temporally consistent model output from each contributing watershed. Dominguez Channel freshwater metals TMDLs examined only wet weather flows; however, LSPC output for dry and wet weather conditions were applied to all estuarine and marine receiving waters.

No.	Report Page	Comment	Response
B1.14	7-8	The use of EFDC model results to establish deposition rates (presented in the table on page 8) based on 4-year simulation period is insufficient. See comments in Tables 2 and 3 addressing modeling, linkage analysis, and summary of linkage analysis as well as discussions provided in Attachments 6, 7, 10, and 12.	See response to **Comment M1.11** in the Port's Modeling response to comment document.
B1.15	7-8	The existing pollutant loadings to the sediment bed were based on the average simulated sediment concentration in the top 5 cm of the sediment bed. This sedimentation rate assumes that the top 5 cm of sediment accurately represents what is currently depositing into the sediment bed. In general, the sedimentation rate is relatively small, and in most cases, the top 5 cm of sediment represents deposition over a long period of time, not just the deposition occurring during the simulation period of 4 years. The existing pollutant loadings should be based on the change in pollutant mass in the bed, not determined based on change in sediment concentrations. See comments in Tables 2 and 3 addressing modeling, linkage analysis, and summary of linkage analysis as well as discussions provided in Attachments 6, 7, 10, and 12.	See response to **Comment M1.11** in the Port's Modeling response to comment document.
B1.16	8	The statement, "Preliminary results for two scenarios indicate that reducing freshwater input loads may not be sufficient to achieve target concentrations in water and sediment; thus decreasing contaminated pollutant levels in bed sediments may be required", is speculative given the uncertainty in establishing the input loads and the magnitude of air deposition estimated in the TMDL. This sentence should be deleted. See comments in Table 2 regarding linkage analysis and addressing Section 5.3.	The statement is an appropriate summary of findings based on management scenarios using the EFDC model. Appendix III to the Staff Report contains a full discussion of the management scenarios.
B1.17	9	The statement, "the active sediment layer was defined as the top 5 cm of sediment; the habitat of approximately 95 percent of benthic organisms" is out of place (perhaps it belongs on page 8 just prior to the table to define active layer). Its placement here indicates the loading capacity was based on the loading capacity of the top 5 cm, when it is actually the sedimentation rate (which is as low as 0.01 cm/yr) multiplied by the sediment numeric target and is not related to the top 5 cm	Staff finds this is an appropriate place for the statement.

No.	Report Page	Comment	Response
		of sediment. See comments in Tables 2 and 3 addressing modeling and loading capacity as well as discussions provided in Attachments 6, 7, 10, and 12.	
B1.18	10	The table on page 10 (same as Table 6-8 in Staff Report) contains an estimate of the 95th percentile chemical concentrations of existing sediments. These values are used as interim allocations. While this approach is consistent with NPDES permitting methodology for effluent – is not customary for sediment allocations prior to any remedial actions. The implementation schedule requires meeting the interim sediment concentrations (Table 6-8) on the effective day of the TMDL; however, this does not correspond with Section 6.4.5 that states that Direct Effects TMDLs may be achieved via two different means: meeting the final sediment allocations in Table 6-10 or demonstrate meeting the desired qualitative condition via multiple LOE. Compliance with the interim concentration targets in Table 6-8 on the effective date of the TMDL should also allow for meeting the multiple LOEs via the Phase 1 SQO– Direct Effects. Like the final targets, the interim sediment targets in the TMDL are based on chemistry alone. Because the interim sediment targets do not consider benthic health and sediment toxicity, they prevent the ability to demonstrate attainment of water and sediment quality objectives through the SQO process. Furthermore, the interim sediment targets were not calculated correctly, include mathematical errors, and do not reflect current conditions of the harbor sediments as intended, and artificially split listed waterbodies. Rather than ensuring no further degradation, the listed targets would result in exceedances of the TMDL on the day of adoption. If enforced, the interim targets could require dredging and result in the destruction of marine habitats that currently support healthy marine life. Therefore, the interim sediment targets should not be included in the TMDL. While the Port firmly believes that interim sediment targets should not be used, corrected interim numbers (using the methodology prescribed in the TMDL), are included in Attachment 8 with the database used to develop the interim numbers.	The Basin Plan Amendment has been modified to include the alternative means of compliance by demonstrating the protective condition of the sediment of Unimpacted or Likely Unimpacted. See response to **Comment 20.1** in the public comments response document.

No.	Report Page	Comment	Response
		See comments in Table 2 regarding Table 6-8 and supported by Attachment 8.	
B1.19	12	WLAs assigned to MS4 permittees were identified based on drainage area for each waterbody. Whereas, the TMDL (or load capacity) was quantified as a total depositional rate in each waterbody. Individual WLAs are not appropriate, because no linkage analysis was conducted to identify watershed specific contributions to the deposition in each waterbody. The use of WLAs based on drainage area for each waterbody assumes that only one watershed contributes to the depositional rate in that waterbody. For example, contributions of the MS4 permittees in the Dominguez Channel Watershed were allocated entirely to the depositional rate of the Dominguez Channel waterbody. However, watershed loadings and sediment bed sources from the Dominguez Channel are transported into the Consolidated Slip and Inner Harbor. As stated in Appendix III-8 on page 4, "The model results show that the accumulation of contaminated sediments in Dominguez Channel Estuary, Consolidated Slip, and Inner Harbor-POLA (zones 01-03) are due to the Dominguez Channel and the elimination on the Dominguez Channel loading results in substantially decreasing levels in Dominguez Channel Estuary and Consolidated Slip as show in Figures 2 and 3. The increasing levels of copper in Outer Harbor-POLB, Los Angeles River Estuary, and San Pedro Bay (zones 09-11) are due to the Los Angeles River and elimination of the LA River copper load results in decreasing concentrations over time as shown in Figures 3 through 7." Individual WLAs should be removed until an appropriate linkage analysis can be conducted to support individual WLAs. See comments in Tables 2 and 3 regarding LAs, WLAs, and Table 6-10 (supported by Attachments 7 and 10)	Federal regulations do not require a linkage analysis to determine the individual allocations. CFR 130.2. Efforts to define individual allocations are based on available data, in this case land use percentages. If and when additional studies are completed that provide an alternative means of determining individual allocations, then such information will be used in the TMDL reconsideration.
B1.20	13-15	This approach does not consider assimilative capacity of the waterbody and assumes 100 percent of the contaminants deposited on the surface of the water reach the sediment. The approach is incorrect and must be modified. The table on pages 13-15 should be deleted and replaced with concentration-based allocations	The calculations make conservative assumption of all the contaminants depositing on the sediment. This is one reason that no explicit MOS is included. More importantly, the TMDL in the Harbor waters

No.	Report Page	Comment	Response
		until better source assessment and site-specific sediment quality values are established. See comments in Table 2 addressing Sections 6.3, 6.4, and 6.5 as well as Table 6-10. In addition, see recommended rewrites and Attachments 7 and 10.	is for impaired sediments and it is most appropriate for the calculated TMDLs and allocations to be for sediments. If later studies are developed and used to determine depositional rate and to refine allocations for application in permits this is more appropriate than establishing a concentration-based allocation now, for further development of sediment allocations, later.
B1.21	13-15	The table footnote showing a negative value that indicates bed sediment remediation to attain allocation should be deleted, as this note is not a sustainable condition and certainty not an appropriate definition of an allocation. See comments in Table 2 addressing Section 6.4 and Table 6-10.	See response to **Comment 23.8** in the public comments response document.
B1.22	12	The discussion on air deposition being set equal to existing loads based on monitoring results should clarify that part of the waterbody was assigned to coastal sites and other parts to the Los Angeles Harbor station. This approach leads to great uncertainty in the air deposition rates. Revisions to the TMDL are necessary, because the current estimated air deposition rate in several situations is greater than the TMDL. See comments in Table 2 Sections 6.4 and Table 6-10.	See response to **Comment 23.8** in the public comments response document.
B1.23	13	The statements, "The bed sediment LA is assigned to the City of Los Angeles (including the Ports of Los Angeles), the City of Long Beach (including the Port of Long Beach), and the State Lands Commission. After remediation activities that address existing sediment contamination are complete and when LAs are attained, if bed sediments are recontaminated as a result of continued polluted discharge from the surround watersheds, the WLA monitoring data will be used… to assess the relative contribution of watershed dischargers and determine their responsibility and allocations for secondary remediation activities". This statement is extremely concerning as it indicates remediation is required before upstream sources are controlled. This statement is inconsistent with the sediment management plan	This statement makes clear that upstream responsible parties will continue to be responsible for deposited sediment in the Harbor waters.

No.	Report Page	Comment	Response
		approach provided in Section 7 of the Staff Report. This sentence should be deleted. See comments in Table 2 regarding LAs to sediments in the harbor.	
B1.24	16	*"Compliance with mass-based limits will be measured at designated discharge points."* Only the WLAs made for the Terminal Island Water Reclamation Plant applies to a specific discharge. Other WLAs specified in the tables on pages 12-15 and 17-19 are mass-based limits that are specified based on a depositional rate in each waterbody. Measurements of the depositional rate should not be evaluated at a discharge point. The description of the compliance for mass-based limits should be revised to indicate compliance of the depositional rate. There is no linkage analysis between MS4 discharges and the WLAs of the sediment bed; hence, it is not clear how compliance at end of discharges can be established. See comments in Table 2 addressing Section 6.4.5.	See response to **Comment B1.20**.
B1.25	16	WLAs and LAs cannot be developed until site-specific targets are established. Sediment targets must be established at levels, which will be protective of fish tissue contaminant levels. The organic pollutants addressed by this TMDL (e.g. Chlordane, Dieldrin, Toxaphene, DDT, and PCBs) have the potential to bioaccumulate. The relationship between sediment bioaccumulative concentrations and the fish tissue numeric sediment targets has not been demonstrated within the San Pedro Bay and Los Angeles and Long Beach Harbor areas. The assessment of indirect impacts of sediment contamination via bioaccumulation is currently under development by the SWRCB and SCCWRP, as part of the State's Sediment Quality Plan – Part II. Site-specific scientific information obtained through the application of this assessment tool will be appropriate for determining the relationship between concentrations of bioaccumulatives in sediments and local fish species. Until the SQO Part II assessment tool is adopted, the extent to which sediment concentrations need to be reduced to comply with the TMDLs is uncertain, and thus it is not possible to allocate the necessary load reductions for bed sediments. See comments in Table 2 addressing Sections 3.3 and 6.5 as well as Table 6-12. In	See response to **Comment B1.11**.

No.	Report Page	Comment	Response
		addition, see recommended rewrites and Attachments 4, 7, and 10.	
B1.26	16	The discussion on air deposition being set equal to existing loads based on monitoring results should clarify that part of the waterbody was assigned to coastal sites and other parts to the Los Angeles Harbor station. This approach leads to great uncertainty in the air deposition rates. Revisions to the TMDL are necessary, because the current estimated air deposition rate in several situations is greater than the TMDL. See comments in Table 2 regarding Sections 6.4 and 6.5 and Tables 6-10 and 6-12.	See response to **Comment 23.8** in the public comments response document.
B1.27	16	The statements, "The bed sediment LA is assigned to the City of Los Angeles (including the Ports of Los Angeles), the City of Long Beach (including the Port of Long Beach), and the State Lands Commission. After remediation activities that address existing sediment contamination are complete and when LAs are attained, if bed sediments are recontaminated as a result of continued polluted discharge from the surround watersheds, the WLA monitoring data will be used… to assess the relative contribution of watershed dischargers and determine their responsibility and allocations for secondary remediation activities". This statement is extremely concerning as it indicates remediation is required before upstream sources are controlled. This statement is inconsistent with the sediment management plan approach provided in Section 7 of the Staff Report. This sentence should be deleted. See comments in Table 2 regarding LAs to sediments in the harbor.	See response to **Comment B1.23**.
B1.28	17-19	Establishment of TMDLs based on fish tissue targets is inappropriate at this time, because the development of SQO Part II or site-specific targets based on special studies is pending. This table should be deleted from the BPA. See previous comments and in Table 2 regarding Section 6.5 and Table 6-12.	See response to **Comment B1.11**.
B1.29	19	The table footnote showing a negative value indicates bed sediment remediation to attain allocation should be deleted, as this note is not a sustainable condition and	See response to **Comment 22.4 and 23.8** in the public comments response document.

No.	Report Page	Comment	Response
		certainty not an appropriate definition of an allocation. See comments on the Staff Report addressing Sections 6.4 and 6.5 as well as Tables 6-10 and 6-12.	
B1.30	19	Compliance of bioaccumulative TMDLs calls for meeting final sediment allocations; however, for DDTs, the final sediment allocations are negative, which is meaningless as an allocation. See previous comments on negative allocations.	See response to **Comment 22.4 and 23.8** in the public comments response document.
B1.31	20	As stated in the Staff Report text, "wet weather events may produce extensive sediment redistribution and transport sediments to the harbors." It is also stated in Appendix II that "...pollutant sources and their means of transport to receiving waters vary between wet and dry conditions (McPherson et al. 2005a; RWQCB 2005a, 2005b, 2005c; Stein et al. 2003)." In other words, wet weather conditions may influence where sediment and associated contaminants are transported and deposited in the sediment bed. Although sediment bed concentrations may not vary significantly during wet and dry weather conditions, transport conditions may vary significantly. Hence, accuracy of wet and dry weather watershed loadings, as well as transport conditions, may be important in assessing the long-term sedimentation conditions, which represent the combined effects of wet and dry weather conditions. Because the TMDL is based on sediment deposition calculated by the EFDC model, the model must be calibrated for both dry and wet weather conditions. Currently, the EFDC model has been "calibrated" for dry weather conditions and the model has not been evaluated to assess the accuracy in sediment deposition. Field data in the Dominguez Channel Estuary and Inner Harbor used for the dry weather EFDC model calibration did also include wet weather data from February and March 2006.	See response to **Comment M1.10** in the Ports' modeling comments.
B1.32	20-25	Tissue monitoring implies biannual sampling of three species at 17 locations within the harbor. No tissue sampling occurs in the Dominquez Channel Estuary, and four	Fish tissue is required to be sampled in three locations in the Greater Harbor Waters: BPA page

No.	Report Page	Comment	Response
		sampling locations are monitoring for all of Eastern San Pedro Bay. However, the selection of monitoring locations prior conducting a linkage analysis to understand the sources of constituent contaminant concentrations to fish tissue is premature. Furthermore, it is necessary to identify the most commonly consumed species before selecting species to monitor. USEPA guidance for assessing contaminant data in fish tissue advisories mandates exposure assessments be evaluated with a mixture of consumed species (USEPA 2000). Evaluating attainment of targets with species that pose the biggest risk to human health in effect lowers the target, when the diet of the local population is mixture of fish species with varying degrees of contamination. Also see comments in Table 2 regarding monitoring.	24. "Fish tissue samples shall be collected every two years in San Pedro Bay, Los Angeles Harbor, and Long Beach Harbor, and analyzed for chlordane, dieldrin, toxaphene, DDT, and PCBs." Also, fish tissue is required to be sampled in the Dominguez Channel Estuary: BPA page 22 "Fish tissue samples shall be collected every two years from the Dominguez Channel Estuary and analyzed for chlordane, dieldrin, toxaphene, DDT, and PCBs." The method of fish collection and precise or approximate locations of fish collections will be part of the Implementation Plans prepared by responsible parties.
B1.33	26-32	See comments in Table 2 regarding all parts of Section 7 of the Staff Report.	See responses to Table 2, below.
B1.34	33	This schedule cannot be met for several of the tasks listed. See comments in Table 2 addressing Table 7-2.	See responses to Table 2, below.
	Ports' Attachment "Technical Comments" Table 1 Basin Plan Amendment Comments		
B2.1	13	The description of the harbor's location in relation to the Greater San Pedro Bay implies the entire San Pedro Bay is within the harbor. The text should be clarified by changing "(the greater San Pedro Bay)" to "(western portion of the San Pedro Bay)".	Staff Report has been modified.
B2.2	15	The California brown pelican is no longer on the threatened or endangered list. This bird should be removed from the text. Additional information regarding the biological resources of the harbor is provided in Attachment 2.	California Brown Pelican has been removed from the list. Staff notes that the California Brown Pelican remains "fully protected" by California Department of Fish and Game.

No.	Report Page	Comment	Response
B2.3	19,43-44	The table should include the equations listed in CFR, Title 40: Part 131, Section 131.38 for copper, lead, and zinc. The use of the median hardness of 49 mg/L (from 2002 -2011) to set a single value is misleading, as the water quality criteria for copper, lead, and zinc established in the CTR are hardness dependent and will vary according to hardness. LACDPW data show that the hardness at S28 ranged from 15.2 to 190 mg/L under wet weather conditions; additional discussion is needed to justify the use of the median value (as opposed to average or maximum) to set the freshwater numeric water quality targets. The title of Table 3 -1 should also note these criteria are dissolved forms. The footnote for Table 3 -1 indicates values were based on an average of 49 mg/L; however, Table 3 -2 states the 49 mg/L is the median value (based on data, 49 mg/L is the median, while the average is 67.4 mg/L).	See response to **Comment 21.1** in the public comments response document. Median is correct and the Staff Report has been corrected at Table 3-1. See also response to **Comment 37.3** in the public comments response document.
B2.4	25	In the first paragraph, it states that "The summary includes water quality, fish tissue, and sediment quality data from various monitoring sources, for the period of 1992 to 2010." The data review does not accurately reflect current conditions. By including old data, reviewers cannot assess improvements in water quality resulting from POLB/POLA, City, and regional programs over the last 20 years. Data presented include: • Old data (prior to 2000) that is not reflective of current conditions • Data from dredged material studies, where sediments have been removed from the marine environment • Data from the harbor areas (water, sediment, biological, or tissue) collected after 2006 The data review does not accurately reflect the spatial variation in sediment quality issues. A large quantity of data in a localized area resulting from special studies to determine boundaries of elevated contaminants of concern is used without weighting to imply current conditions throughout the entire waterbody.	See response to **Comment 20.1** in the public comments response document.

No.	Report Page	Comment	Response
		The use of randomly collected data, including Bight and POLA/POLB sediment survey data, would be most appropriate for evaluating the general condition of sediment quality in the Inner and Outer Harbor waterbodies. Sufficient data are available to assess current conditions in this manner. The inclusion of inappropriate data for determining general conditions has resulted in an incorrect assessment of current conditions. Current sediment conditions based on SQO assessment methodologies are provided in Attachment 1. Over 80 percent of sediments in harbor waterbodies are characterized as "unimpacted" or "likely unimpacted." Additional information regarding the biological resources of the harbor is provided in Attachment 2.	
B2.5	28	In regards to the statements addressing POLB stormwater data quality issues that prevented data from being included in the assessment, "results from dates prior to and including 2002 are much higher than those reported from 2003 to present." The lowering of the results was due to the improvement of laboratory methods. Low detection methodologies for metals in seawater were not fully understood and applied in all commercial laboratories prior to 2004. Salt interference was overcome by dilution methods thereby preventing low detection limits. Special methodologies were developed in the late 1990s and became standard procedures for most laboratories in the last 5 to 10 years. Water column metals data after 2004 uses appropriate methods and is most relevant to current conditions. These data should be included in the assessment. In addition, these samples were collected from the surface, not midwater as the header states	Comment noted. Header will be modified in the Staff Report.
B2.6	28	Water column data (2006) taken for the POLB are summarized for the Inner Harbor. The same sampling event also included samples taken in the Outer Harbor and Los Angeles River Estuary. Data summaries should include these data.	This section addresses data from the Inner Harbor.
B2.7	28-29	Data more recent than 2005 POLA water quality data are available. Additional data are available from five sampling events in 2006 and 2008; studies in 2008 used ultra low detection method for PAHs (MDL dropped from 5.0 to 0.001 µg/L). A summary	See response to **Comment 20.1** in the public comments response document.

No.	Report Page	Comment	Response
		of water column data for POLA by waterbody should be included. The inclusion of recent data will more accurately characterize current conditions.	
B2.8	28	Based on the water quality data from the 2006 POLB sample event, the range in dissolved lead concentration should be 0.01 to 0.07 µg/L, not 0.10 to 0.07 µg/L.	The Staff Report has been corrected.
B2.9	29, 32	Water quality data from waters overlying sediment include data from the Inner and Outer Harbor waterbodies. The first sentence should be reworded to say, "In fall 2006, POLB and POLA performed a joint monitoring survey of sediment and overlying waters at 60 sites within the (Inner and Outer Harbor) waters."	Staff finds the statement, as worded, is accurate.
B2.10	30	It would be helpful if water quality data were summarized by waterbody. In addition, data summarized in Table 2 -11 are for total metals. However, the CTR chronic saltwater criteria provided in the table for comparison purposes are for dissolved metals. The criteria in the table should be changed to total metals or a notation added to indicate that data are for total metals and the criteria are for dissolved metals. In addition, the asterisk in the table notes is not clear. The note should be clarified to explain if it applies to all metals or just silver.	Notations have been added to the Table.
B2.11	31-32	It states that "Records from 1992 to 2001, including results from Bay Protection Toxic Cleanup Program (1992, 1994, 1996, and 1997), Bight 1998, Western EMAP 1999 and dredge studies were reviewed." Evaluation studies of dredged material are not suitable sources of data for this water quality assessment. These sediments have been removed from the marine environment, and data collected to evaluate them are, therefore, not representative of current conditions within the harbor. BPTCP, Bight 1998, and WEMAP 1999 data are greater than 10 years old and do not reflect current conditions. Additionally, BPTCP, Bight 1998, and WEMAP 1999 data should not be excluded based on the age of data. Data collected from dredge studies should also not be included. More recent data from Bight 2008 and WEMAP 2005 should be included.	See response to **Comment 20.1** in the public comments response document.

No.	Report Page	Comment	Response
		A database of the current sediment conditions is provided in Attachment 8.	
B2.12	32	TIWRP sediment data from 1999 -2000 are greater than 10 years old, do not reflect current conditions, and used less robust analytical methods for pesticides and PCBs (i.e., GC -ECD). Data from 1999 -2000 should be excluded based on the age of data, and more recent TIWRP data from 2005 -2007 should be included.	See response to **Comment 21.2** in the public comments response document.
B2.13	32	The more recent data from Bight 2008 should be included. Data are provided in Attachments 1, 2, and 8.	See response to **Comment 20.1** in the public comments response document.
B2.14	33	The OEHHA 1991 dataset should be excluded based on the age of data and data quality issues. OEHHA 1991 fish tissue data are greater than 10 years old and do not reflect current conditions. This program analyzed PCB Aroclors, not congeners; therefore, the interpretation for human health consumption concerns using current procedures is not possible. In addition, the data quality is questionable; concentrations were three times higher at the QA/QC laboratory than the contract laboratory. OEHHA Coastal Fish Contamination Project (1999 -2000) dataset should be excluded based on the age of data and data quality issues. Data are greater than 10 years old and do not reflect current conditions. This program analyzed PCB Aroclors, not congeners; therefore, the interpretation for human health consumption concerns using current procedures is not possible. The analysis of skin -on fillets for two species prevents accurate comparisons (i.e., concentrations may be six to seven times higher in skin -on fillets than skin -off fillets). Sample size was less than five per species; therefore, an accurate range of these species was not provided.	The comprehensive data review included summaries of the data contributing to the fish consumption advisory and older and more recent results. Commenter seems to be suggesting that the Staff Report not included available data for discussion. It is appropriate and important for a TMDL Staff Report to review available data. See, also, response to **Comment 20.1** in the public comments response document.
B2.15	33-34	TIWRP data from 1999 and 2000 should be excluded based on the age of data and data quality issues. More recent TIWRP data from 2005 -2007 should be included. TIWRP data from 1999 and 2000 are greater than 10 years old and do not reflect current conditions. The older data were developed from the use of less robust	See response to **Comment B2.14**.

No.	Report Page	Comment	Response
		analytical methods for pesticides and PCBs Aroclors (i.e., GC -ECD) that were available at the time.	
B2.16	36	NOAA Status and Trends tissue data (1986 -1998) should be excluded based on the age of data and data quality issues. Data are greater than 10 years old and do not reflect current conditions. The older data were developed from the use of less robust analytical methods for pesticides and PCBs (i.e., GC -ECD) that were available at the time. Data from State Mussel Watch tissue (1977 -2000) should be excluded based on the age of data and data quality issues. Data are greater than 10 years old and do not reflect current conditions. The older data were developed from the use of less robust analytical methods for pesticides and PCB Aroclors (i.e., GC -ECD) that were available at the time. More recent data that are available up to 2004 should be included.	See response to **Comment B2.14**.
B2.17	36	The BPTCP 1997 dataset should be excluded based on the age of data and inability to compare data to other studies because of data collection methods. Data are greater than 10 years old and do not reflect current conditions. The analysis of whole fish prevents accurate comparisons (i.e., concentrations may be eight to ten times higher than skin -off fillets). Sample size was less than five per species; therefore, an accurate range of these species was not provided. The Bight 1998 dataset should be excluded based on the age of data and data quality issues; include more recent data from Bight 2008. These data are greater than 10 years old and do not reflect current conditions. For some samples, data were developed from the use of less robust analytical methods for pesticides and PCBs (i.e., GC -ECD) that were available at the time. The analysis of whole fish prevents accurate comparisons (i.e., concentrations may be eight to ten times higher than skin -off fillets). Sample size was less than five per species; therefore, an accurate range of these species was not provided. More recent data from Bight 2008 should be included.	See response to **Comment B2.14**.

No.	Report Page	Comment	Response
B2.18	33-37	The more recent tissue data from WEMAP 2005 should be included.	See response to **Comment B2.14**.
B2.19	38	It states that "The most recent survey of benthic infauna (Ports 2006 and Bight 2003) provided results on current conditions; whereas previous studies provided historical information (BPTCP 1992 -97, Bight 1998 and Ports 2006)."…"While certain areas in the Inner Harbor have shown dramatic improvement, most notably the Cabrillo and Pier 400 Shallow Water Habitat areas, the evidence did not change the overall assessment conclusion of impairment for three waterbodies mentioned above." The current assessment of the benthic condition should change the overall assessment. More than 90 percent of the Inner Harbor supports a healthy benthic community. The benthic conditions were assessed using the benthic health component of the SQO triad. A map is provided in Attachment 1.	While conditions in the harbor have improved, the impaired/not impaired categorical assessment has *not* changed.
B2.20	39-41	At the beginning of each of these sections, it states, "A fish consumption advisory for certain DDT and PCBs in certain fish species is currently in place and is corroborated by recent fish tissue results (OEHHA 2009)." OEHHA (2009) does not	The OEHHA (2009) does corroborate the fish consumption advisory for DDT and PCBs in certain fish species. The Harbors were not sampled

No.	Report Page	Comment	Response
		corroborate exceedances for most of these locations, because little data were collected in the harbor. Only Station 17 appears to be in the Inner Harbor, and only Station 16 is in Outer Harbor. No fish were collected in Fish Harbor, Cabrillo Marina, or Cabrillo Beach.	in many locations, but the data that was collected in the Harbors corroborates the advisory.
B2.21	40	It states that sediment results for Cabrillo Marina do not show elevated levels of metals in the sediment. However, metal TMDLs were developed for Cabrillo Marina (Table 6 -10). This pollutant -waterbody combination does not require a TMDL (Table 2 -18), and the metals TMDLs for Cabrillo Marina are not required. This information should be removed from Table 6 -10. In addition, the last sentence in Section 2.6.8 should clarify that water column water quality measurements are available from POLA, and no exceedances were recorded.	Based on SQO assessment, Cabrillo Marina is impaired and therefore it is appropriate to define TMDL and allocations for the SQO pollutants in this waterbody.
B2.22	41	It is indicated in this section that San Pedro Bay is not impaired for copper, zinc, and PAHs. In addition, the assessment finding summarized in Table 2 -18 does not indicate metal or PAHs impairments for San Pedro Bay. The metal and PAHs TMDLs developed for San Pedro Bay are not required; therefore, these contaminants should be removed from Table 6 -10.	Based on SQO assessment, San Pedro Bay is impaired and therefore it is appropriate to define TMDL and allocations for the SQO pollutants in this waterbody.
B2.23	42	Assessment findings summarized in Table 2 -18 do not show metal and PAHs impairments for the Outer Harbor or Los Angeles River Estuary. The metal and PAHs TMDLs developed for the Outer Harbor and Los Angeles River Estuary are not required and should be removed from Table 6 -10.	Based on SQO assessment, Los Angeles Estuary is impaired and therefore it is appropriate to define TMDL and allocations for the SQO pollutants in this waterbody.
B2.24	42	Assessment findings in this table are not associated with any matrix. The reader must assume that metals and PAHs are associated with sediment and that PCBs and DDTs are associated with tissue. This table should be revised to indicate an impaired matrix.	Comment noted.
B2.25	42-52	A recommended rewrite of this section has been provided, offering alternative targets that are believed to meet water quality objectives without causing detrimental	Comment noted.

No.	Report Page	Comment	Response
		impacts to the marine environment.	
B2.26	45	The sediment quality guidelines of Long et al. (1995) are not appropriate for sediment numeric targets. A detailed memorandum with key supporting references (Attachment 3) documents the concerns with using ERL values in TMDLs. A summary of the key points of our concern include the following: 1. ERLs and ERMs are inappropriate. As stated by Long and Morgan (1990), "These guidelines were not intended for use in regulatory decisions or any other similar applications." Instead, as specified by Long et al. (1995) and NOAA (2010), ERLs and ERMs were designed to be informal, screening level tools that could be used to evaluate areas that might need further investigation. 2. It is incorrectly assumed that ERLs are based on a cause -effect relationship, or one in which increasing concentrations of a measured chemical constituent cause increasing levels of a biological effect (e.g., an increase in toxicity). Instead, ERLs represent chemical concentrations at the low end of a range that co -occur with a biological effect. While correlations may be statistically significant between a chemical in exceedance of an ERL and a biological effect, these relationships may be coincidental and not causal. Consequently, it is entirely possible, and we believe data actually demonstrate, that sediment chemical levels are considerably greater than the ERL that would be sufficient to achieve water quality goals. 3. The lack of a cause -effect relationship is due in large part to the fact that there are multiple chemicals in the harbor environment. Chemical -specific ERLs are confounded by other covarying chemicals, factors other than anthropogenic chemicals (e.g., ammonia, sulfide, and grain size), and non -measured chemicals (i.e., pyrethroids). As a result, the cause of toxicity cannot be assigned to any particular chemical. 4. ERLs have insufficient predictive ability for setting remedial goals because of the significant frequency of false positives and negatives (exceedances of the ERL with no biological effects, and concentrations below the ERL in the presence of effects, respectively; Long et al. 1995; Long et al. 1998; NOAA 2010; Field et al. 1997;	See response to **Comment 20.1** in the public comments response document.

No.	Report Page	Comment	Response
		O'Connor et al. 1998; Shine et al. 2003; Vidal and Bay 2005). 5. Data from the harbor itself demonstrate that ERLs are overly conservative for this site. Sediment chemistry and toxicity data collected as part of the Bight 2008 program indicate numerous ERM and ERL exceedances with little corresponding toxicity (toxicity was found in one of 13 samples using the in amphipod toxicity test and in zero of 13 samples using the bivalve development test). Together, these issues indicate that ERLs are inappropriate for use as numeric targets. The statement that the TELs and ERLs provide an implicit MOS must be more fully explained. The MOS directive is meant to apply to the load (the TMDL itself). Applying a MOS to a target, in this case an ERL, results in a MOS that is much greater than 10 percent (in fact an order of magnitude for the listed analytes when going from an ERM to an ERL). While it is accepted that more conservative values provide an implicit MOS, the TMDL should provide an order of magnitude of the estimated implicit MOS as it could be in the range of 100 percent if an ERL were compared to an ERM (the State's screening criteria for 303[d] listing assessment). The TMDL author should also estimate the level of uncertainty in the other numeric targets (e.g., do they also include an implicit MOS, and if so, to what level.). The near absence of toxicity to benthic organisms suggests that current contaminant levels are sufficient to protect benthic organisms in most of the harbor. It is likely, therefore, that further evaluation within the SQO process will result in target sediment concentrations far in exceedance of the ERL. ERLs should not be used in the TMDL. Alternative targets, based on available information regarding the benthic communities and sediment toxicity in the harbor, should be used to develop target sediment concentrations.	
B2.27	45	It states that SQOs are intended for use in the process; however, the proposed approach of using these LOEs individually is counter to the methodologies defined in the guidance document. From the guidance document: 1. "Pollutants in sediments shall not be present in quantities that, alone or in	While the Staff Report discusses the alternative and utility of evaluating the three LOE separately, this TMDL uses the three LOE together as described in the SQO Policy. See response to **Comment B1.7.**

No.	Report Page	Comment	Response
		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." (Section IV.A) 2. "None of the LOE [lines of evidence] is sufficiently reliable when used alone to assess sediment quality impacts due to toxic pollutants" and "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" (Section V.B) 3. Key principles of assessment approach: a. Results for a single LOE shall not be used as the basis for an assessment b. Evidence of both elevated chemical exposure and biological effects must be present to indicate pollutant -associated impacts c. The categorization of each LOE shall be based on numeric values or a statistical comparison (Section V.J) 4. "…it is recommended that Regional Boards develop TMDL allocations using the methodology described herein, wherever possible" (Section VII.B) These clarifications in use and methodologies were developed from the fact that the program was designed, and the thresholds validated, within a holistic approach. The isolation of any single LOE nullifies the proposed thresholds.	
B2.28	47	As previously stated, these thresholds were not intended for use without incorporating the presence of elevated contaminants and sediment toxicity results. The weighting factors used to develop these thresholds would have been different without the other LOEs (i.e., toxicity and chemical assessments).	See response to **Comment B2.28.**
B2.29	48	The targets in the TMDL are inconsistent in the use of threshold values for each of the three LOEs. For benthic community effects, the Draft Staff Report sets the standard between the low disturbance (category 2) and moderate disturbance (category 3) levels defined in the SQO program. For sediment toxicity, the author sets the standard between nontoxic (category 1) and low toxic (category 2) response defined in the SQO program.	See response to **Comment B2.28.**

No.	Report Page	Comment	Response
		The Draft Staff Report arbitrarily selected different levels of response categories to demonstrate compliance for the sediment toxicity and benthic community. These response categories are defined by the confidence levels of the measured responses. For the benthic LOE, the "low disturbance" category description is defined as "some indication of stress is present, but within measurement error of unaffected condition." This definition is scientifically (i.e., statistically) equivalent to the toxicity LOE definition of "low toxicity;" "a response that is of relatively low magnitude; the response may not be greater than the test variability." Outside of the SQO framework, the values in Table 3 -6 are overly conservative for the determination of "nontoxic." As previously stated, these thresholds were not intended for use without incorporating the presence of elevated contaminants and benthic community results. The weighting factors used to develop these thresholds would have been different without the other LOEs (i.e., benthic and chemical assessments). Public comments regarding the threshold for "low toxicity" resulted in the following statements from the SWRCB, "…The toxicity category designation is always used in combination with other LOEs to determine regulatory action; it is never used as the sole basis for decisions, regardless of the statistical significance result", and "This category is intended to represent responses that are of low magnitude and uncertainty with regard to test variability; it does not represent a conclusion regarding impact, which is determined from MLOE". Reference can be found in Appendix E (Comments and Responses) of the Staff Report at http://www.swrcb.ca.gov/water_issues/programs/bptcp/sediments.html	
B2.30	48	It states that toxicity responses will be evaluated by statistical comparison to a reference sample rather than a laboratory control. This helps account for localized natural confounding factors (i.e., total organic carbon, grain size, temperature, salinity, ammonia, sulfides, etc.) and increases confidence that the observed toxicity is related to chemical of potential concern. Accordingly, reference sample locations must be identified and used for purposes of comparison (it is recommended these sites be established in the Monitoring Plan). The control will be used to demonstrate test acceptability in accordance with standard procedures. The use of a reference site	This Table is taken from the Water Quality Control Plan for Enclosed Bays and Estuaries – Part 1 Sediment Quality (SQO Plan) which describes acceptable sediment toxicity methods for SQO calculation.

No.	Report Page	Comment	Response
		is inconsistent with the values presented in Table 3 -6. The text should be modified in Table 3 -6 to state "% of reference control" in each of the category headings and in the table notes.	
B2.31	50	The use of ERLs as sediment targets for the protection of fish consumption is inappropriate. ERLs were developed as screening level tools for protection of benthic organisms and are not considered relevant on any scale to bioaccumulation in fish tissue. The reference to ERLs, as they relate bioaccumulation in fish tissue, should be removed. Until Part II SQO developed is or a similar approach is applied, the level of reduction necessary in fish tissue concentrations is uncertain. Target sediment concentrations that are protective of the fish tissue target concentrations have not been determined. A site -specific linkage analysis is required. For these reasons, sediment and fish targets for the protection of fish consumption should not be set. A detailed memorandum documenting the concerns with using ERL values in TMDLs with key supporting references is provided in Attachment 4. There is precedent for not including fish tissue targets in a TMDL, pending collection of the supporting data. Other recent TMDLs have not included fish targets but stated that fish tissue will reduce with natural or assisted recovery (i.e., Coosa River PCB TMDL [GDNR 2005]). It is encouraging that the TMDL will consider site -specific information to potentially revise sediment quality targets (i.e., SQVs). However, it is important to keep in mind that the sediment threshold levels that are under development for Part II SQO are: 1) only one LOE in assessing indirect effects, and 2) threshold levels need to be determined on a site specific basis. It would be a misuse of the SQO directive to directly apply default sediment threshold levels based on default bioaccumulation factors and FCG concentrations based on the most conservative assumptions of risk.	ERLs are not being used as sediment targets for the protection of fish consumption. Fish tissue targets are discussed in Sections 3.3 and 3.4.
B2.32	50	FCGs (OEHHA 2008) used in the TMDL were not intended to be used as numeric	See response to **Comment 20.3** in the public

No.	Report Page	Comment	Response
		targets. The technical basis for applying these FCGs as the fish tissue numeric targets for DDT and PCBs has not been established. See Attachment 5 for additional discussion. In numerous places in their 2008 document, OEHHA indicates that FCGs were not intended to be screening values or numeric targets and that other agencies intending to use these numbers should either consult OEHHA for advice in their application or modify the tissue concentrations on a project and site -specific basis. For example: • "Agencies developing fish tissue -based criteria may choose to alter one or more of these assumptions in order to meet their own specific goals or requirements" (OEHHA 2008, page 39) • "OEHHA has developed FCGs using standard exposure factors and a consumption rate of 8 oz (6 oz after cooking), to provide a starting point for other agencies…" (OEHHA 2008, page 3) • "…because of the unique health benefit associated with fish consumption, the advisory process should be expanded beyond a simple risk paradigm in order to promote the overall health of the consumer" (OEHHA 2008, page 53) The only justification used for the application of FCGs as fish targets is if FCGs were "recently developed by OEHHA in June 2008 to assist other agencies to develop fish tissue -based criteria with a goal toward pollution mitigation or elimination and protect humans from consumption of contaminated fish or other aquatic organisms". OEHHA (2008, page 1) states that: "Fish Contaminant Goals (FCGs) are estimates of contaminant levels in fish that pose no significant health risk to individuals consuming sport fish at a standard consumption rate of eight ounces per week (32 g/day), prior to cooking, over a lifetime and can provide a starting point for OEHHA to assist other agencies that wish to develop fish tissue -based criteria with a goal toward pollution mitigation or elimination". That is, these FCGs are provided as a starting point. The TMDL uses them	comments response document.

No.	Report Page	Comment	Response
		inappropriately as an endpoint. The TMDL also indicates that fish targets provide an additional MOS. "Use of fish tissue targets is appropriate to account for uncertainty in the relationship between pollutant loadings and beneficial use effects (EPA, Newport Bay TMDL, 2002)". The overconservatism that results from the assumptions used in the TMDL is an inappropriate use of the MOS. The results for sediment and fish tissue targets are more stringent than necessary to meet water quality goals. OEHHA (2008) provides more realistic values, the ATLs, that are still protective of human health. ATLs are more appropriate for the TMDL than FCGs. OEHHA (2008) developed ATLs in parallel with FCGs. These values were designed to protect human health by incorporating the health benefits of fish consumption into the risk analysis: "Advisory Tissue Levels (ATLs), while still conferring no significant health risk to individuals consuming sport fish in the quantities shown over a lifetime, were developed with the recognition that there are unique health benefits associated with fish consumption and that the advisory process should be expanded beyond a simple risk paradigm in order to best promote the overall health of the fish consumer." (OEHHA 2008, page iii). Unlike FCGs, ATLs include the benefits of fish consumption (e.g., protection from cardiovascular disease, stroke, cognitive impairment, etc.; OEHHA 2008) in the advisory process. OEHHA indicates that ATLs, while higher than FCGs, confer no additional health risk to fish consumers, because they take into account the health benefits of eating fish. ATLs are one of the criteria that will be used by OEHHA for issuing fish consumption guidelines. Because ATLs are considered protective of human health, there is no reason for using the more conservative FCGs relied upon in the TMDL. Further support of ATLs is provided in the recent update to fish consumption advisories for southern	

No.	Report Page	Comment	Response
		California coastal areas; OEHHA compared fish data to ATLs to develop safe eating guidelines (OEHHA 2009).	
B2.33	52	The setting of targets for WILD or RARE beneficial reuses is not necessary until impairment is observed. Once developed through the Phase II SQO or similar approach, it is anticipated that the sediment targets will be protective of wildlife habitat (WILD) and preservation of rare and endangered species (RARE). Reducing pollutant loads to attain human health targets will yield progress toward restoring all beneficial uses, including possible impairments to reproductive success (birds) or immune system suppression (seals).	All beneficial uses must be protected. The TMDL targets may be modified based on new policies, such as the anticipated Phase II SQO, if appropriate, when the TMDL is reconsidered for that purpose. Staff agrees that "reducing pollutant loads to attain human health targets will yield progress toward restoring all beneficial uses, including possible impairments to reproductive success (birds) or immune system suppression (seals)."
B2.34	52	USEPA guidelines state that "Point, nonpoint, and background sources of pollutants of concern must be described, including the magnitude and location of sources. The TMDL document demonstrates all sources have been considered [40 CFR 130.2(i) and 40 CFR 130.7(c)(1)]." In the source assessment, pollutant sources were quantified based on an average sedimentation rate and simulated pollutant sediment concentration, resulting in a total pollutant loading to the sediment bed for each waterbody. However, the individual sources of the total pollutant loading were not identified nor quantified. In addition, major sources are not included (e.g., Machado Lake Watershed and NPDES dischargers of Haynes and Alamitos stations).	In the source assessment, sources were adequately identified and quantified. Information on individual sources of pollutant loading such as NPDES permits (including MS4 permits), air deposition, and existing sediments were also discussed. Technical analyses were performed to identify Machado Lake as a sink in the system during most conditions and a discussion of these analyses will be added to Section 3.1.1. If information on overflows and sediment loading from Machado Lake are performed or identified in the future and suggest that Machado Lake should be included, revisions can be made to the LSPC model if the TMDL is reopened for that purpose in the future. In

No.	Report Page	Comment	Response
			addition, a TMDL for Machado Lake Toxics has been adopted by the Regional Board (and City of Los Angeles Proposition O funds are dedicated for necessary remediation), so this potential source will become diminishing in the future.
B2.35	52	Point sources were identified based on NPDES permits in the Dominguez Channel, Los Angeles River, and San Gabriel River watersheds. NPDES permits from the Nearshore Watershed surrounding San Pedro Bay (outside of the harbor), which would include the Los Cerritos Channel/Alamitos Bay Watershed and San Gabriel River Estuary, were not identified. These missing references should be added to the descriptions of NPDES sources.	These sources have been described in the previously issued TMDLs for the Los Angles River, San Gabriel River and Los Cerritos Channel. .
B2.36	54	This table indicates that there are six major individual NPDES permits in the Dominguez Channel and Greater Harbor waters. However, there are eight major individual NPDES permits in the Dominguez Channel and Greater Harbor waters (see comment for Section 4.1.2). The table should be modified accordingly.	Document has been modified.
B2.37	56	This section lists the permittees in the Dominguez Channel or Greater Harbor watersheds, indicating this list is comprehensive of all MS4 permits. The list includes municipalities under both the Los Angeles County and City of Long Beach MS4 permits. However, the list does include the Caltrans and City of Seal Beach. It is not clear as to which permittees should be included in this list. The description of the list should be clarified or modify accordingly. In the list of permittees, the City of Redondo Beach and Torrance are both listed twice. In addition, the City of Palos Verdes should be the City of Palos Verdes Estates. There are a total of 24 permittees listed in Section 4.1.1.1 A on page 56. Whereas,	This section discusses MS4 permittees. MS4 permittees in the subject watershed are identified. Section 4.1.1.2 discusses Caltrans' stormwater permit. The list of MS4 permittees has been corrected. Seal Beach is not in the County of Los Angeles MS4 permit.

No.	Report Page	Comment	Response
		Tables 4 -1 and 4 -2 both indicate a total of 26 MS4 permittees (24 municipalities under the Los Angeles County MS4 permit, one MS4 permit for Caltrans, and one MS4 permit for the City of Long Beach). In addition, there is no mention of the MS4 permit for the City of Seal Beach. The tables and/or text should be modified accordingly. It is our understanding that there are a total of 25 MS4 permittees located within the Dominguez Channel and Greater Harbor watersheds. Cities in the Dominguez Channel/Harbor Watershed are Carson, Compton, El Segundo, Gardena, Hawthorne, Inglewood, Lawndale, Lomita, Long Beach, Los Angeles, Los Angeles County, Manhattan Beach, Palos Verdes Estates, Rancho Palos Verdes, Redondo Beach, Rolling Hills, Rolling Hills Estates, and Torrance. Cities in other nearshore areas are Bellflower, Lakewood, Paramount, Signal Hill, and Seal Beach. Two additional permittees included in the Los Angeles County MS4 permits are Caltrans and Los Angeles County Flood Control District.	Caltrans is not in the Los Angeles County MS4 permit, but has a separate stormwater permit. Both the County of Los Angeles and Los Angeles County Flood Control District. Are in the Los Angeles County MS4 permit. Staff notes that this list also includes MS4 dischargers to the Los Angles River Estuary.
B2.38	57	The statement that "current stormwater discharge from the Dominguez Channel watershed appears to be a minimal source of contamination to the Dominguez Channel" is misleading, because this statement is referring to organics. This sentence should be changed to say, "current stormwater discharges of OC pesticides and PCBs." In addition, it should also be noted that the tributary monitoring conducted by Los Angeles County included metals and that tributary monitoring occurred for both the 2008 -2009 and 2009 -2010 wet weather seasons. Summaries of the metals results and data from the 2009 -2010 wet weather seasons should be added.	The full statement is "*The samples were analyzed for OC pesticides and PCBs, although only non-detect results were reported (Los Angeles County Stormwater Monitoring Report, 2008-09). Based on insufficient sensitivity of analytical methods and difficulty with accurately interpreting these results, current stormwater discharge from the Dominguez Channel watershed appears to be a minimal source of contamination to the Dominguez Channel and Greater Harbor Waters."* A fuller discussion of the water quality data for the Dominguez Channel is found in the Problem Statement.
B2.39	59	It states that "There are six major NPDES discharges in the Dominguez Channel	Document has been modified.

No.	Report Page	Comment	Response
		Watershed: one POTW, two generating stations, and three refineries. However, the following text under the section for major and minor individual NPDES permits includes one POTW, one generating station, and four refineries. The text and lists of major NPDES permits should be modified to reflect the following information. In the Dominguez Channel and Greater Harbor Watershed Management Area, there are eight major individual NPDES permits: one POTW, two generating stations, four refineries, and one fuel transfer station. The eight major NPDES discharges are also specified in the Dominguez Channel Watershed Management Area Watershed Management Initiative Chapter prepared by the Los Angeles RWQCB (2007). Terminal Island Water Reclamation Plant CA005386 R4 -2005 -0024 Harbor Generating Station CA000361 R4 -2003 -0101 Long Beach Generating Station CA0001171 R4 -2009 -0112 Conoco Phillips (Los Angeles Refinery) CA0000051 R4 -2006 -0082 BP Carson Refinery CA0000680 R4 -2007 -0015 Tesoro (Los Angeles Refinery) CA0003778 R4 -2010 -0179 Exxon Mobil Torrance Refinery CA0055387 R4 -2007 -0049 Shell/Equion Carson Terminal CA0000809 R4 -2007 -0026 In addition, the list of major NPDES discharges neglects to identify two major NPDES permits: the San Gabriel River Estuary -Haynes Generating Station and Alamitos Generating Station. These major NPDES permits should be added to the description of NPDES permits.	
B2.40	60	This paragraph describes only one general NPDES permit for discharges of low threat hydrostatic test water to surface waters. However, as indicated in Table 4 -1, there are currently two dischargers enrolled under this type of permit. The text should be modified to include descriptions of both permits, one discharge of 2.5 MGD and one discharge of 1.5 MGD.	Table 4-1 includes active permits in the summer of 2010.

No.	Report Page	Comment	Response
B2.41	61	In this table, the number of individual NPDES permits (majors; including refineries) is indicated as six with the POTW listed separately, for a total of seven major individual NPDES permits. Whereas, Table 4 -1 indicates a total of six major individual NPDES permits. However, there are eight major individual NPDES permits for the Dominguez Channel Watershed (see all comments for Section 4.1.2). Tables 4 -1 and 4 -2 should be modified accordingly.	See response to **Comment B2.36**.
B2.42	63	The use of the "Wilmington" site air deposition rate for the entire Inner Harbor resulted in loadings above the defined TMDL for copper and zinc. In addition, the use of one air deposition rate for the Inner Harbor does not account for the spatial distribution of the Inner Harbor. For example, the coastal air deposition rate is applied to Cabrillo Marina, but the Wilmington air deposition rate is applied the portion of the Inner Harbor located adjacent to Cabrillo Marina. The air deposition rate should be used to calculate the Inner Harbor air deposition loadings to account for the spatially distribution (i.e., use two different air deposition rates for the Inner Harbor). The inland rate should be used for the inner portion of the Inner Harbor, and the coastal rate should be used for the outer areas of the Inner Harbor.	Sampling site location was within the Los Angeles and Long Beach Harbors watershed; therefore these results are most appropriate for characterizing local conditions. (Site location was based on several criteria, including location that obtained ancillary parameters; e.g. mean wind speed and direction.) Uncertainty is relevant to air deposition estimates and is best addressed via collecting additional air deposition monitoring data in future optional studies. The work that needs to continue in air deposition can include further analysis such as determination of the potential radius of influence of the emitters and the contributions of other pollutants. Optional studies, mentioned in Implementation Plan, will improve characterization of air deposition loading and perhaps evaluate air load deposition rates and residence time in the waterbody.
B2.43	61-64	*Indirect Air Deposition* Page 61 references an Atmospheric Deposition Loads of Metals in Los Angeles Area Study and states that "This study is referenced in this section to provide estimated	The study referenced provided estimated loadings, although much uncertainly continues to exist. The

No.	Report Page	Comment	Response
		loadings from direct and indirect atmospheric deposition." However, on page 64, it, "The amount of deposited metals available for transport to Los Angeles area (i.e., not infiltrated) is unknown". From the discussions of the existing loads within Dominquez Channel freshwater (Section 4.3.1), the loads associated with indirect deposition are lumped in with stormwater estimates from the LSPC models for the Dominquez Channel, Los Angeles River, San Gabriel River, and nearshore areas. It must be clearly state that air deposition studies were used only to estimate direct surface water deposition. The paragraphs on page 64 discussing indirect deposition are repetitive and confusing. The last sentence in Section 4.2.1 should be clarified to say, "The loadings of metals associated with indirect atmospheric deposition are accounted for in the estimates of the stormwater loadings. " This sentence should actually state that the indirect atmospheric deposition loadings are not separately accounted for through estimates of indirect deposition (as one would assume based on the discussion on page 61), but instead are lumped in with the estimates of stormwater loadings from the LSPC models of the Dominquez Channel, Los Angeles River, San Gabriel River, and nearshore watershed. If this is not the case, the section and table containing estimates of the stormwater loadings should be indicated. *Direct Air Deposition – Metals* A discussion should be added as to explain how the values in Table 4 -3 were used to verify or validate the deposition rates used in Table 4 -5 that establish the deposition rates (and hence allocations in Table 6 -10 for air deposition). The values in Table 4 -3 are significantly different from those presented in Table 4 -5 (e.g., direct deposition for copper in the Los Angeles River Watershed is reported as 21.9 kg/yr in Table 4 -3 compared to 6.7 kg/yr in Table 4 -5; likewise, Table 4 -3 lists zinc direct deposition at 1.4 kg/yr compared to 48.9 kg/yr in Table 4 -5). Table 4 -5 references Sabin & Schiff (2007) and Sabin et al. (2010) as the basis for the direct deposition rate; using Wilmington site averages for the first four	loads associated with indirect deposition were included with stormwater estimates from the LSPC models for the Dominquez Channel, Los Angeles River, San Gabriel River, and nearshore areas. Air deposition studies were used only to estimate direct surface water deposition. Staff has made clarifications to the Staff Report.

No.	Report Page	Comment	Response
		waterbodies listed in Table 4 -5 and an average for the coastal sites for the remaining five waterbodies. Sabin & Schiff (2007) fails to present the full dataset that must be evaluated in understanding the high depositional rates in the Los Angeles area and the application of coastal rates for various waterbodies (for instance, should the Wilmington site deposition rates be applied to only the very near portions of the Inner Harbor). In addition, wind speeds and directions are important, as over 50% of the data collected at the Wilmington site was collected in October and November after data was collected at the other sites and may have been influenced by presence of Santa Ana winds. The study was designed to reduce variability within a site by concentrating the sampling during summer months (June -September) to avoid periods of rainfall and unusual meteorological conditions (e.g., Santa Ana winds, which are more prominent during the fall; see page 7 of Sabin & Schiff 2007); however, seven of 12 samples collected at the Los Angeles Harbor were collected in October and November. This leads to questions and concerns about the variability and comparability of the reported depositional rates at the Wilmington site and the use of these values for the nearshore waterbodies. *Direct Deposition – PAHs* The value of 244 ng/m2/day for PAHs in Table 4 -5 must be justified. The value reported for Los Angeles Harbor in Sabin et al. (2010) is -360 ng/m2/day (see Table 5, Sabin et al. 2010).	
B2.44	65	USEPA guidelines (2000) state that "If the State cites documents as the basis for technical findings in the TMDL which are not submitted with the TMDL package, the TMDL document must clearly summarize the technical analysis supporting the findings concerning individual TMDL elements." However, documentation of the Dominguez Channel Watershed Model was not submitted as part of the TMDL documents or summarized in detail. The LSPC model for the Dominguez Channel Watershed developed by the SCCWRP is only referenced to in Appendix II (LSPC Watershed Model Report) and is based on an unpublished report. As such, comments cannot be made regarding the accuracy of the watershed model and the use of the	The draft Staff Report included three appendices on the modeling effort. In addition, the Regional Board website contains extensive documentation regarding model development from 2006 to present. The LSPC model was used in previous Los Angeles Region TMDLs and further documentation

No.	Report Page	Comment	Response
		watershed model to account for pollutant loadings from the Dominguez Channel Watershed. Documentation and/or a detailed summary of the Dominguez Channel Watershed Model should be provided.	is available associated with those TMDLs. See the "Background information" in the response to the Port's modeling comments. In addition, see response to **Comment 36.53G** in the public comments response document.
B2.45	65	This section establishes existing sediment loadings via EFDC model results. The model results provided an estimate of the top 5 cm and the total sediment deposition rate per waterbody. These results were from an un -calibrated sediment transport model. The justification for the use of an average of the top 5 cm versus the top 2 cm should be provided. In addition, bounding/sensitivity exercises exploring the uncertainty in establishing sedimentation rates is critical and needs to be done before values in Table 4 -6 are provided due to the lack of data to model comparisons for sediment concentrations and sedimentation rates. See the work done for the San Francisco Bay TMDLs, where a range of sediment loadings were reviewed.	See response to **Comment M1.10** in the Ports' modeling comments.
B2.46	66	The existing pollutant loadings to the sediment bed were based on the average simulated sediment concentration in the top 5 cm of the sediment bed. This assumes that the top 5 cm of sediment accurately represents what is currently depositing into the sediment bed. In general, the sedimentation rate is relatively small, and in most cases, the top 5 cm of sediment represents deposition over a long period time, not just the deposition occurring during the simulation period of 4 years. The existing pollutant loadings should be based on the change in pollutant mass in the bed, not determined based on change in sediment concentrations. However, if this current methodology (using concentration) is used, either the model has to run longer (until reaching 5 cm of deposition) or a method has to be used to extrapolate the 4 -year result to a longer duration.	See response to **Comment M1.6 and M1.11** in the Port's Modeling response to comment document.
B2.47	68	Sources of stormwater runoff are discussed and imply that runoff is from port activities and not other watershed sources. The third sentence should be revised to say, "Stormwater runoff from manufacturing, military facilities, fish processing	The summary statement begins: *"A variety of activities over the past decades in the four contributing watersheds (Dominguez Channel, Los*

No.	Report Page	Comment	Response
		plants, wastewater treatment plants, oil production facilities, and shipbuilding or repair yards within the watersheds discharge untreated or partially treated wastes into Harbor waters." Current harbor activities are identified as pollutant sources, but these types of sources were not quantified or considered as part the TMDL development. If these sources are considered significant, then quantifying these sources as part of the source assessment must occur.	*Angeles River, San Gabriel River and the nearshore watershed) and in the Harbors themselves have contributed to the sediment contamination."* This does not imply that runoff is from port activities and not other watershed sources.
B2.48	68	The sub -watersheds draining to Machado Lake combined comprise more than 20 percent of the total land area in the Dominguez Watershed. Machado Lake overflow is conveyed to the Northwest Slip in Los Angeles Harbor. The Tetra Tech Nearshore Watershed Model assumes that the Machado Lake Watershed is not hydrologically connected to the harbor; hence, flow and loadings from this watershed are not included as input to the Tetra Tech Receiving Water Model. In Section 4.4, pollutant loadings from Machado Lake are identified as a potential pollutant source to the harbor, but were not quantified as part of the source assessment. However, recent flow data indicates that flow contributions from the Machado Lake Watershed to the Los Angeles Harbor typically occurs every wet season and the volume of water discharged each year is of the same order of magnitude as the volume of water discharged to the entire Inner Harbor. POLA/POLB previously submitted documentation to the influence of Machado Lake; these documents are provided in Attachment 6 and 12. The assumption of no flow to the harbor from Machado Lake is inconsistent with the assumption made by the RWQCB in the development of the nutrient TMDL for Machado Lake (RWQCB 2008). For the development of the nutrient TMDL, the RWQCB assumed that any inflow into Machado Lake during wet weather would be discharged into the harbor. Therefore, watershed loadings from the Machado Lake Watershed should be incorporated into the Nearshore Watershed Model and Receiving Water Model. Due to the potentially high discharge volume and	Technical analyses were performed to identify Machado Lake as a sink in the system during most conditions and a discussion of these analyses will be added to Section 3.1.1. It is anticipated that monitoring to confirm this assumption will be conducted in the future. If such information on overflows and sediment loading from Machado Lake are performed or identified in the future and suggest that Machado Lake should be included, revisions can be made to the LSPC model if the TMDL is reopened for that purpose in the future. In addition, a TMDL for Machado Lake Toxics has been adopted by the Regional Board (and City of Los Angeles Proposition O funds are dedicated for necessary remediation), so this potential source will become diminishing in the future.

No.	Report Page	Comment	Response
		associated watershed loadings, the deposition rate to the Inner Harbor could be significantly higher than currently estimated. Alternatively, in the absence of watershed model loading data, the loadings from the adjacent sub -watersheds (41, 43, 44, 45, 46, area = 7.7 square miles) should be scaled up based on area and used for loadings from Machado Lake (area = 24.55 square miles).	
B2.49	68, 102	In the fourth paragraph of page 68, it states that "The major nonpoint sources of pesticides and PCBs to the greater harbor waters are fluxes from currently contaminated sediments into the overlying water. The re -suspension of these sediments and associated pollutants contributes to the fish tissue impairments." Furthermore, at top of page 102, it states, "Bioaccumulative compound TMDLs are designed to achieve fish tissue targets through contaminated sediment reductions." Resuspension does not necessarily provide a key contribution to fish contamination; fish contamination may originate primarily from consumption of sediment -borne invertebrates. As discussed elsewhere (see Attachment 7), the linkage analyses conducted are not sufficient to demonstrate that sediment contaminant flux is the major nonpoint source of pesticides and PCBs to the greater harbor waters; the relative contributions between the watershed source and the resuspension/ redistribution of existing bed contaminants cannot be differentiated. More importantly, the linkage between sediment and fish is key to setting a sediment concentration target to protect fish consumers. It is premature to determine the necessary reductions in sediment bioaccumulative compound concentrations prior to understanding what proportion of fish body burdens are derived from harbor sediments. See comments related to Section 3.2.4. Given the TMDL does not identify the current sources of PCBs in fish tissue, the special study identified in Section 7 (Implementation Plan) should be required to ensure that all stake holders buy into the process of correctly identifying the sources of contaminants that result in the tissue exceedances and provide meaningful WLA for the protection of fish tissue. See related comment regarding Section 7.4.	The fourth paragraph of page 68 is part of Section 4.4, *Sources Summary* and page 102 is part of Section 6.6, *Summary of TMDLs*. In addition, fish contamination may originate through the foodweb and consumption of sediment -borne invertebrates. The summary statements are summary and do not necessarily include all possibilities. Staff assume the commenter refers to the first of the five Attachment 7s (7.A) provided (a memo from Ying Poon, provided in addition to the memo sent directly by Ying Poon to the Regional Board included in the Ports' modeling comments). Staff assumes the commenter refers to the first of 14 Attachment 5s, (5.A) the memo from Anchor QEA *Fish Criteria in the Los Angeles and Long Beach Harbor Toxics TMDL.* Given that, see response to **Comment 20.3 and 20.4** in the public comments response document. Staff encourages stakeholders, including the Ports

No.	Report Page	Comment	Response
		A memorandum discussing major issues with the development (both calculations and the conceptual model) of this TMDL is provided in Attachment 7. A memorandum discussing major issues with fish targets in the TMDL is provided in Attachment 5.	to undertake Special Studies. 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 new State policies including, but not limited to, SQO Part II; toxicity policy. Optional special studies, which could result in changes to these TMDLs, include but are not limited to: foraging ranges of targeted fish; additional data on contaminant contributions of the Los Angeles River or San Gabriel River to Greater Harbor waters; stressor identifications; and additional diazinon data. If appropriate, the TMDL will be reconsidered by the Regional Board at the end of Phase I to consider completed special studies or policy changes.
B2.50	68	Additional quantification of estimated atmospheric deposition must be completed, as the summary currently states, "In addition, atmospheric deposition may be a potential nonpoint source of metals, DDT and PAHS to the watershed, through either direct deposition or indirect deposition." However, Table 6 -10 shows atmospheric deposition to be 14 -15% of the current load in the Inner and Outer Harbor waterbodies, respectively, which is significant. This is a non -point source load that must be considered significant and not, "may be a potential nonpoint source."	See response to **Comment 20.4** in the public comments response document.

No.	Report Page	Comment	Response
B2.51	68	USEPA guidelines (2000) state that "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 CFR 130.2 (i) and (f)]." Based on the TMDL documentation, the following linkage analyses were not conducted to establish the required relationships between numeric targets, pollutant sources, and loading capacities. These linkages analyses must be conducted prior to setting TMDLs. 1. The linkage between sediment numeric targets and pollutant sources must be demonstrated. 2. The linkage between existing sediment bed sources and sediment bed concentrations must be demonstrated. 3. The linkage between water column concentrations (e.g., CTR) and sediment concentrations (i.e., benthic impairment) must be demonstrated. 4. The site -specific linkage between fish tissue targets and sediment numeric targets must be demonstrated. Section 7.4 describes an optional special study for sediment and fish tissue linkages and states that "a relationship between sediment constituent concentrations and fish tissue constituent concentrations exist; however, the quantification of that relationship (i.e., what concentrations in sediment lead to levels of concern in fish) is not well understood in the waterbodies addressed in the Harbors TMDLs." A memorandum discussing major issues with the development (both calculations and the conceptual model) of this TMDL is provided in Attachment 7.	See response to **Comment 20.4** in the public comments response document.
B2.52	69	It states that "The Inner Harbor receives the bulk of the loading from the nearshore watershed, which is expected since this waterbody has the largest nearshore drainage area and acts as a pollutant sink. See Table 5 -2." However, based on the percent of total loading in Table 5 -2, Alamitos Bay receives the largest pollutant loadings of metals from the Nearshore Watershed with 55 -60% of the metal loadings. In	See response to **Comment B1.9.**

No.	Report Page	Comment	Response
		general, the Inner Harbor receives the largest pollutant loadings of organics. In addition, Alamitos Bay has the largest drainage area as provided in Appendix III.1, page III -5. The text should be revised to describe the watershed loadings accordingly.	
B2.53	70	Insufficient information is provided to evaluate the annual watershed loadings to the greater harbor waters. No details were provided in defining wet and dry weather condition and/or the number of wet and dry weather days. The definition of wet weather can vary among watersheds if a percentile flow (e.g., 90th percentile flow) is used to define wet weather conditions. The Dominguez Channel freshwater definition of the 90th percentile flow (1.78 m3/sec) results in 21 days of wet weather conditions and 344 days of dry weather conditions on average each year. The 90th percentile flow for the Los Angeles River, as defined for the Los Angeles River TMDL (14.2 m3/sec), results in 26 wet weather days and 359 dry weather days on average each year. In Appendix II, wet weather flows for the Los Angeles River were defined as the 50th percentile flow, which results in 65 wet weather days and 300 dry weather days on average each year. The wet weather definition for each of the watersheds used to calculate the loadings in Table 5 -1 should be provided so that annual loadings as well as annual dry and weather loads can be evaluated.	See response to **Comment M2.24** in the response to the Ports' modeling comments.
B2.54	72	The EFDC model was used to estimate sediment deposition rates in each waterbody. Based on the text, it is unclear if the sediment deposition rate was based on an average of the entire waterbody or by a representative location shown as a black dot in Figure 5 -4 (page 79) for each waterbody. It is also uncertain if the sediment deposition rate was based on the top 20 cm of the sediment bed or the top 5 cm of the sediment bed. The additional details needed to clarify how the deposition rates were determined should be provided.	The sediment deposition rate is an average rate for the entire TMDL zone. Since it is a rate of deposition for new sediment to the bed, it is not associated with a particular sediment depth. Appendix III.1, which is referenced in the Staff Report, presents details on how the rates were determined.
B2.55	74	The model grid does not have an apparent representation of the San Gabriel River. Indicate where the San Gabriel River Watershed loadings were specified in the EFDC grid and provide the rationale to exclude defining the San Gabriel River in the	See response to **Comment M2.9**.

No.	Report Page	Comment	Response
		model grid.	
B2.56	75	A discussion must be added to explain the use of a factor of five times the best -fit bed partition coefficient based on TSS to estimate the water column partition coefficient. An explanation of why five was chosen and what was the scientific basis for a factor of five should be provided.	Section 7.3 in Appendix I describes the selection of the partition coefficients in detail, including the selection of a factor of five.
B2.57	79	In Figure 5-4, points are used to show the average sediment/contaminant concentration or load for zone. Does this mean that the sediment deposition rate and existing pollutant concentration in the bed for each zone was based on EFDC modeling results at these locations. Clarify how these points were used. (Also see other comments related to Table 5-4)	Figure 5-4 has been replaced in the Staff Report as the deposition and existing conditions were based on average conditions in the entire TMDL zone. See also response to **Comment B2.54**.
B2.58	81	Given the depositional rates for the various waterbodies (calculated from total deposition and area per waterbody values listed in Table 5 -3 and an assumed bulk density of 1.5 g/cm3) of 0.01 cm/yr for Inner and Outer Harbor waterbodies, 0.16 cm/yr in Consolidated Slip, 0.29 cm/yr in Dominquez Channel Estuary, and 1.72 cm/yr in the Los Angeles River Estuary, an EFDC model run for just 4 years seems inadequate for establishing relative contributions to watersheds, because very little impact in the top 5 cm would be expected in any area except perhaps Dominquez Channel Estuary and the Los Angeles River Estuary. Longer run times are necessary to determine impact and to model data comparisons of sediment concentration and sedimentation rates need to be made. (See Attachment 7 for expanded discussion)	The LSPC watershed modeling was completed in 2006 – thus the modeling period went through 2005 and incorporated the available data to date at that time. The modeling period for the EFDC receiving water model was based on the watershed modeling period, since this output was required as EFDC input. Additional information has also been included in Appendix III.8 regarding the impact of the simulation time period on the model results.
B2.59	81	The final paragraph of the linkage analysis fails to address the importance and impact of direct air deposition, and therefore, the statement that "…reducing freshwater input loads may not be sufficient to achieve target concentrations in water and sediments; thus decreasing contaminated pollutant levels in bed sediment may be required" fails to indicate that reductions to air deposition may also be required. This sentence should be modified to indicate that reduction of all point and non -point sources may be required to achieve target concentrations in water and sediments.	See response to **Comment 19.1**.

No.	Report Page	Comment	Response
B2.60	85	Dominguez Channel freshwater load allocations for atmospheric deposition are based on a percentage of surface water area in the watershed. Because the TMDL is calculated based on the load duration curve, the use of a percentage to define the load allocation for atmospheric deposition implies that the contribution of atmospheric deposition varies with the TMDL. Hence, the larger the storm volume, the larger the contribution from atmospheric deposition. The justification for this assumption should be provided. The text states that the atmospheric deposition is calculated by multiplying this percent 0.3%) by the total loading capacity, but the equation shows LA = 0.03x (TMDL – MOS). Clarify whether 0.3% or 0.03 (3%) was used.	Since the load allocation pertains to direct deposition, it was based on the percentage of the surface water area. Direct deposition does not necessarily relate to size of storm since precipitation washes out particles and gaseous forms of metals relatively quickly and the input of airborne metals is not continuous over the course of the storm. If additional information becomes available in the future that provides an alternative means of determining these allocations, then such information will be used in TMDL reconsideration.
B2.61	88	A recommended rewrite of this section has been provided offering alternative allocations and compliance measures that are believed to meet the water quality objectives without causing unwarranted impacts to the marine environment.	Comment noted.
B2.62	88-89	Table 6 -8 contains an estimate of the 95th percentile chemical concentrations of existing sediments. These values are used as interim allocations. While this approach is consistent with NPDES permitting methodology for effluent, it is not customary for sediment allocations to be determined prior to any remedial actions. The implementation schedule requires meeting the interim sediment concentrations (Table 6 -8) on the effective day of the TMDL; however, this does not correspond with Section 6.4.5 that states that Direct Effects TMDLs may be achieved via two different means: meeting the final sediment allocations in Table 6 -10 or demonstrate meeting the desired qualitative condition via multiple LOE. Compliance with the interim concentration targets in Table 6 -8 on the effective date of the TMDL should also allow for meeting the multiple LOEs via the Phase 1 SQO – Direct Effects. Like the final targets, the interim sediment targets in the TMDL are based on	See response to **Comment 21.4** in the public comments response document.

No.	Report Page	Comment	Response
		chemistry alone. Because the interim sediment targets do not consider benthic health and sediment toxicity, they prevent the ability to demonstrate attainment of water and sediment quality objectives through the SQO process. Furthermore, the interim sediment targets were not calculated correctly, include mathematical errors, and do not reflect current conditions of the harbor sediments as intended, and artificially split listed waterbodies. Rather than ensuring no further degradation, the listed targets would result in exceedances of the TMDL on the day of adoption. If enforced, the interim targets could require dredging and result in the destruction of marine habitats that currently support healthy marine life. Therefore, the interim sediment targets should not be included in the TMDL. While the Port firmly believes that interim sediment targets should not be used, corrected interim numbers (using the methodology prescribed in the TMDL), are included in Attachment 8 with the database used to develop the interim numbers.	
B2.63	90	It states that "The initial SQV values is equal to the ERL value." The sentence should be revised to include "until other site -specific values are developed".	The test of Section 6.4.2 also states: *"However, the SQV may be modified or replaced based on future sediment quality studies, such as site-specific (toxicity or benthic impact) studies or stressor identification studies. Such special sediment studies may test for sediment toxicity (survival and sub-lethal effects) as well as benthic community response index. Also, plans for sediment special studies will be reviewed by the Regional Board and EPA in order to provide the basis for replacing an ERL as the SQV.*"
B2.64	90	Alternative targets, based on available information regarding the benthic communities and sediment toxicity in the harbor should be used to develop target sediment concentrations. Consistent with the sediment management plan (Figure 7 -1), site -specific values should be developed using methods defined in established guidance manuals. See Attachment 4 for applicable guidance documents.	Targets for this TMDL have been developed using the applicable guidance. The USEPA, Contaminated Sediment Remediation Guidance; USEPA, Ecological Risk Assessment Guidance for Superfund; and USEPA web pages describing the Superfund Ecological Risk Assessment and Superfund Sediment Screening Values (Attachment

No.	Report Page	Comment	Response
			4) are not TMDL guidance documents. Nevertheless, site-specific sediment targets can be developed; see response to **Comment B2.63**.
B2.65	91, 101-102	The TMDL establishes concentration -based WLAs for sources other than MS4's (Table 6 -9; Section 6.4.3.1). These are based on the CTR. The CTR values are designed to protect human health consumption. However, there are no water column exceedances in the ambient water column to require this compliance, and so the Dominguez Channel Estuary and Inner Harbor are not listed for water toxicity; rather, they are listed only for sediment impairments. Thus, the TMDL targets for these sources are not linked to the impairment. CTRs should not be used. In place of the CTR, water column concentrations that are necessary to remove the sediment impairment should be used. In principle, this is what was done for the MS4s in Table 6 -10; sediment impairment was linked (albeit incorrectly) to MS4 loads, which, given knowledge of MS4 flows, can be converted to concentrations. The method by which Table 6 -10 was developed is incorrect and inappropriate; these values are in error (see Attachment 7). However, a linkage between sediment and water should be the basis for WLAs for all point sources, including non -MS4s. One way to do this (which should also be used for MS4s) is to set the concentration of chemicals on particulates settling onto the sediment bed equal to the sediment target. The approach used in Table 6 -10 is based upon the same principle, although Table 6 -10 then uses model results inappropriately to develop WLAs. A more correct way to do this involves simply calculating contaminant concentrations on particulates in the ambient water column.	Commenter provides alternate methods of calculating allocations. Commenter has not made the calculations, vetted them with stakeholders nor subjected them to peer review. CTR protects human health consumption and also protects aquatic life. CTR is appropriate for targets and allocations to protect downstream sediment goals. See response to **Comment 20.4** in the public comments response document.
B2.66	91	Receiving (salt) water column concentration -based waste load allocations were specified for the Dominguez Channel Estuary and Inner Harbor and are applicable to non -MS4 point sources discharges. For the Dominguez Channel Estuary, concentration -based waste load allocations based on CTR criteria were specified	Mass-based allocations were developed using flow data; where data was unavailable, concentration-based allocations were developed.

No.	Report Page	Comment	Response
		for copper, lead, zinc, PAHs, chlordane, DDT, dieldrin, and PCBs. However, water column exceedances of CTR criteria were not found in the Dominguez Channel Estuary and impairments are only attributed to sediment, as described in Section 2.6.3. No evidence was provided to support water column criteria for the Dominguez Channel Estuary. For the Inner Harbor, concentration -based waste load allocations based CTR saltwater criteria were specified for copper, lead, zinc, DDT, and PCBs. However, no linkage analysis was provided to support water column concentration criteria with sediment bed concentrations. The rationale for using water column concentration criteria for the Dominguez Channel Estuary and Inner Harbor should be provided.	See response to **Comment 21.4** in the public comments response document.
B2.67	91	Load allocations for atmospheric deposition are based on atmospheric deposition rates and water surface areas (Table 4 -6). For the Inner Harbor, the load allocation for atmospheric deposition exceeds the TMDL. See other comments related to TMDL allocations in Table 6 -10.	See response to **Comment 23.8** in the public comments response document.
B2.68	91	Until upstream source controls are instituted, any targeted sediment remediation in the sub -water bodies with negative bed sediment allocations has a very high potential of recontamination, because incoming allocations are greater than the TMDL. The final paragraph in Section 6.4.3.2 should be revised to state that any sediment management or compliance plans must consider and quantify recontamination potential by upstream sources before any remediation is required.	Section 6.4.3.2 includes Load Allocations. Section 7 includes the plan for implementation. See Section 7.3 for a discussion of the phased implementation. In addition see response to **Comment 21.9** in the public comments response document.
The Ports did not provide a comment No. 69. For ease of comparison to Ports' numbering system, this response document is continued without No. B2.69.			
B2.70	91	Direct air deposition rates for lead were estimated in Section 4 using area deposition rates; however, in Section 6.4.3.2 rates for lead were changed to the target 0.15 µg/m3 lead ambient air standard. This was converted to 0.15 µg/m2/day deposition rate for calculating lead air deposition in Table 6 -10. The conversion from 0.15 µg/m3 air standard to a daily depositional rate should be converted. In addition, the	For lead, the direct air deposition allocation was calculated using information from EPA' s revision to the National Ambient Air Quality Standard (EPA, 2008) as well as recent rule making by South Coast Air Quality Management District

No.	Report Page	Comment	Response
		expected time frame to achieve reduction from the estimated current loading (Table 4 -5) of lead 91.6 kg/yr to 3.5 kg/yr (a 96% reduction) should be explained. Without these reductions following the same implementation schedule as the rest of the TMDL, recontamination of the waterbodies is entirely possible.	(SCAQMD, 2010). SCAQMD will be implementing EPA's lead ambient air standard (0.15 µg/m^3) in forthcoming years. The load allocation for direct deposition of lead onto surface waters is based on this revised air quality standard and the surface area of each waterbody, converted to mass/year. These mass-based direct air deposition allocations apply as annual limits. In addition see response to Comment 21.9 in the public comments response document.
B2.71	92	The last sentence of the second paragraph on page 92 is out of place. This sentence should be moved to the appropriate section in the TMDL. Section 6.4.3.2 addresses load allocations, and this sentence refers to POLA/POLB discharges grouped with MS4 discharges and the mass -based WLAs are annual limits.	The sentence will be corrected.
B2.72	92	WLAs assigned to MS4 permittees were identified based on drainage area for each waterbody. Whereas, the TMDL (or load capacity) was quantified as a total depositional rate in each waterbody. Individual waste load allocations are not appropriate, because no linkage analysis was conducted to identify watershed specific contributions to the deposition in each waterbody. The use of WLAs based on drainage area for each waterbody assumes that only one watershed contributes to the depositional rate in that waterbody. For example, contributions of the MS4 permittees in the Dominguez Channel Watershed were allocated entirely to the depositional rate of the Dominguez Channel waterbody. However, watershed loadings and sediment bed sources from the Dominguez Channel are transported into the Consolidated Slip and Inner Harbor. As stated in Appendix III -8 on page 4, "The model results show that the accumulation of contaminated sediments in Dominguez Channel Estuary, Consolidated Slip, and Inner Harbor -POLA (zones 01 -03) are due to the Dominguez Channel and the elimination on the Dominguez Channel loading	See response to **Comment 20.4** in the public comments response document.

No.	Report Page	Comment	Response
		results in substantially decreasing levels in Dominguez Channel Estuary and Consolidated Slip as show in Figures 2 and 3. The increasing levels of copper in Outer Harbor -POLB, Los Angeles River Estuary, and San Pedro Bay (zones 09 -11) are due to the Los Angeles River and elimination of the LA River copper load results in decreasing concentrations over time as shown in Figures 3 through 7." Individual WLAs should be removed until an appropriate linkage analysis can be conducted to support individual WLAs. A memorandum discussing major issues with the development (both calculations and the conceptual model) of the TMDL is provided in Attachment 7.	
B2.73	92	WLAs were calculated based on the percent contribution from watershed sources, which were determined based on contaminant sediment concentrations (Appendix III.8). Several problems were identified with the linkage analysis used to determine the percent watershed contributions. 1. Using the contaminant sediment concentration to determine the percent watershed contribution is likely to result in under estimating the percent contribution from watershed sources. The top 5 cm of the sediment bed is a combination of both the existing sediment and newly deposited sediment. Hence, the contaminant sediment concentration for each of the model scenarios is the combined result of the existing contaminant and the new contaminant deposition. Because the modeled deposition rates are, in general, very small (order of mm), proper calculations should be conducted based solely on the new contaminant deposition, not the average of the top 5 cm. 2. In some cases, the watershed contribution was specified as a negative percentage such as Fish Harbor, Cabrillo Marina, and Cabrillo Beach, which is not physically possible. However, waste load allocations were still assigned to watershed sources. Calculations were done arbitrarily by simply converting a negative value to a positive value with no justification. 3. Figure 3 of Appendix III.8 shows the copper concentration in the Consolidated Slip significantly and continually decreasing over the 4 -year simulation period for	See response to **Comment 20.4** in the public comments response document. 1. See response to **Comment M1.11** in the Port's Modeling response to comment document. 2. See response to **Comment 23.8** in the public comments response document. In addition, no negative values were converted to positive values. 3. See response to **Comments M1.6** and **M1.11** in the Port's Modeling response to comment document.

No.	Report Page	Comment	Response
		the no upland sources scenario. Because the Consolidated Slip waterbody is depositional, the decrease in copper concentration is unlikely to be caused by erosion of the bed. An explanation for the decrease in copper sediment concentration could be that for the no upland sources scenario, sediment from watershed sources were simulated without copper (i.e., the scenario was simulated with "clean" sediment). The continuous deposition of clean sediment then leads to the decrease in copper concentration. However, this is wrongly interpreted, as the change in copper concentration due to the removal of upland watershed sources. The change in copper concentration is primarily attributed to the dilution effect of simulating clean sediment. This calculated number is not representative of or equivalent to the percent watershed contribution as represented in the TMDL. A detailed discussion on why the interpretation is wrong is proved in Attachment 7. 4. As shown on Figure 3 of Appendix III.8, by removing the watershed source, the copper concentration of the Consolidated Slip sediment bed would have been reduced from 260 to 140 mg/kg in 4 years. If the model was run for another 5 years, the copper concentration could have been reduced to zero. The simulation time frame is arbitrary and does not reflect long -term or average conditions. The use of only two model scenarios for linkage analysis to determine load allocations does not provide sufficient information to differentiate contaminant contributions from different sources to different waterbodies. The linkage analysis should be revised to determine appropriate allocations. A memorandum discussing major issues with the development (both calculations and the conceptual model) of the TMDL is provided in Attachment 7.	4. See response to **Comments M1.6** and **M1.11** in the Port's Modeling response to comment document.
B2.74	92	A range and estimate of uncertainty is necessary to establish a TMDL based on sedimentation rates. The EFDC model must be used to investigate the magnitude of the uncertainty in the sedimentation rates, as they directly correlate to the established TMDLs presented in Table 6 -10.	See response to **Comments M1.10** in the Port's Modeling response to comment document.
B2.75	92	Load allocations of bed sediments were calculated as the TMDL minus all other	See response to **Comment 23.8** in the public

No.	Report Page	Comment	Response
		allocations. In some cases, the allocations exceed the TMDL resulting in negative allocations for bed sediments. For the Inner Harbor, LAs for air deposition exceeded the copper and zinc TMDLs, resulting in negative LAs for bed sediments. LAs for air deposition also exceed the DDT TMDLs (Table 6 -12), resulting in negative LAs for bed sediments for all waterbodies. The use of a negative allocation contradicts the definition of an allocation. In addition, this illustrates the fact that the bed sediment allocations are calculated based on a faulty linkage analysis, resulting in physically meaningless negative allocations. Thus, allocations for bed sediments should be removed or an appropriate linkage analysis be conducted to change the methodology used to calculate the allocations. More details are provided in the Attachment 7.	comments response document.
B2.76	92	Table 6 -10 allocates 100% of the air deposition calculated from estimated dry deposition of atmospheric deposition on the surface of the water against the TMDL established for the sediment. This means that the TMDL assumes all of the contaminant deposited on the surface of the water reaches the sediment and is part of the sediment TMDL, when in fact, some of this will dissolve into the water column and be flushed out of the system before ever reaching the sediment surface. This is a critical flaw, because the sediment allocation is determined by difference from the TMDL, WLAs, and air deposition. Sediment allocations should be removed until appropriate methodology is established to develop these non -point source allocations.	See response to **Comment 20.4** in the public comments response document.
B2.77	92	Calculating bed sediments by difference from the TMDL established from sedimentation rates and sediment contaminant target concentration yields negative allocations for sediments in the Inner and Outer Harbor waterbodies. Based on the TMDL, the Inner and Outer Harbor waterbodies must have mass removed every year forever to meet this TMDL, meaning source assessment has not sufficiently quantified the incoming sources and provided a reasonable method of controlling sources for water quality attainment. All waterbodies with negative load allocations should be re -evaluated using better science to establish allocations before assigning	See response to **Comment 23.8** in the public comments response document.

No.	Report Page	Comment	Response
		a negative allocation that indicates that the incoming sources (WLAs and air deposition) are greater than the TMDL. The footnote on Table 6 -10 stating “waterbodies with negative bed sediment loads must be remediated” should be removed and replaced with “negative values for bed sediments indicate further study of these waterbodies is necessary to quantify the incoming sources and the contribution of these sources to the water and sediment quality in the waterbody”.	
B2.78	95	It states that "Compliance with mass -based limits will be measured at designated discharge points." Only the WLAs made for the Terminal Island Water Reclamation Plant apply to a specific discharge. Other WLAs specified in Tables 6 -10 and 6 -12 are mass -based limits that are specified based on a depositional rate in each waterbody. Measurements of the depositional rate should not be evaluated at a discharge point. The description of the compliance for mass -based limits should be revised to indicate compliance of the depositional rate. There is no linkage analysis between MS4 discharges and the WLAs of the sediment bed; because, it is not clear how compliance at the end of discharges can be established.	See response to **Comment 21.3**in the public comments response document.
B2.79	95-96	It is of concern that the attainment WLA (Table 6 -10) will not achieve water quality goals for direct effects and pull the demonstration of compliance away from the protection of the intended beneficial uses, which this TMDL has been developed to protect. This section states that WLAs were developed to: 1) reduce sediment toxicity, 2) improve benthic health, 3) minimize the negative impacts of chemicals, 4) reduce pollutant load: however, the proposed WLA values only define the reduction in pollutant loads. Alternatively, the State’s SQOs use multiple LOEs; sediment toxicity, sediment chemistry, and benthic community; therefore, more appropriately define compliance of the four goals (benthic health, toxicity, reduction in chemical concentrations). The ultimate goal is to protect the benthic organisms in sediments, and the best methods would be to measure those organisms directly (like the SQO methods).	Attainment of the WLA and LA will achieve the water and sediment quality goals. See response to **Comment 20.1** in the public comments response document. Progress *solely* in stressor ID studies is not an acceptable substitute for compliance with the TMDL; thus sediment quality improvements, through appropriate BMPs to reduce loadings, remediation of known “hotspots” and other such means, must be concurrent.

No.	Report Page	Comment	Response
		Top of page 96 states that the stressor identification study must be concurrent with sediment quality improvement. However, the stressor identification study must be conducted first in order to determine the stressors (e.g., chemicals) causing the impairment. Then those results are used to determine the actions necessary to reduce the identified impairments. After the actions are completed improvements to the sediment quality is expected. A recommended rewrite of this section has been provided, offering alternative compliance measures that are believed to meet the water quality objectives without causing unwarranted impacts to the marine environment.	
B2.80	96	The use of ERLs as sediment targets for the protection of fish consumption is inappropriate. ERLs were developed as screening level tools for protection of benthic organisms and have never been considered relevant to bioaccumulation into fish tissue. This information should be removed. See comments related to Sections 3.3 and 6.5 as well as Attachments 3 and 4 for further discussion.	See response to **Comment B2.31**.
B2.81	96	A recommended rewrite of this section has been provided, offering alternative allocations and compliance measures that are believed to meet the water quality objectives without causing unwarranted impacts to the marine environment	Comment noted.
B2.82	98	Bioaccumulative TMDLs (Table 6 -12) were calculated based on the numeric target and sedimentation rate (Table 5 -3) in each waterbody. For the PCBs TMDL described in Section 6.5.1, the numeric target was selected as the BSAF, which is the sediment concentration to attain specific fish tissue levels. The BSAF is lower and more protective than the ERL of 22.7 µg/kg (Table 3 -7). In Section 3.3, the numeric targets for bioaccumulatives in fish tissue were specified as the FCGs listed in Table 3 -8, which includes a fish tissue target and associated sediment target. Based on	To address these impairments, the TMDLs have been designed to reduce contaminated sediment levels which will result in lower corresponding pollutant levels in fish tissue. (This approach has been utilized in other Los Angeles Region TMDLs. (Ballona Estuary TMDLs, 2007, Calleguas Creek Organochlorine TMDLs, 2005.)) Specifically, the

No.	Report Page	Comment	Response
		Table 3 -8, the sediment target for PCBs is 3.6 µg/kg. However, the PCBs TMDL in Table 6 -12 indicates that the TMDL was calculated based on a numeric target of 3.2 µg/kg (Appendix III.1, page III -4). Clarify the BSAF and FCGs in Section 3.3 and the justification of selecting the numeric target used to calculate the PCBs TMDL shown in Table 6 -12.	average mass of total sediment (fine and coarse particles) deposited in each waterbody annually based on EFDC model output (using water years 2002-2005) was approximated. This value is the average annual (clean) sediment deposition rate per waterbody. Then the more protective sediment quality value of either ERLs or biota-sediment accumulation factor (BSAF) was selected to determine desired sediment concentrations to attain specific fish tissue levels. The loading capacity of contaminated sediments within each waterbody was calculated from multiplying the sediment quality target by the average annual sediment deposition rate.
B2.83	98-100	Negative value for sediment implies annual dredging. The footnote on Tables 6 -10 and 6 - 12 calls for waterbodies with negative bed sediment loads must be remediated should be replaced with, negative values for bed sediments indicate further study of these waterbodies is necessary to quantify the incoming sources and the contribution of these sources to the water and sediment quality in the waterbody.	See response to **Comment 23.8** in the public comments response document.
B2.84	101 Section 6.6	This sentence should be revised to be more inclusive of the process for modification of listings based on stressor identification studies. These TMDLs will need to be revisited and modified if toxic pollutants outside the scope of these TMDLs are identified as causative agents "and if pollutants within the scope of these TMDLs are found to not cause impairments."	Section 6.6 is a 'Summary of TMDLs.' The process for listing or delisting based on stressor identification is described in the *Water Quality Control Plan for Enclosed Bays and Estuaries – Part 1 Sediment Quality* and also the *Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List*. See, in addition, Section 7, *Implementation*, of the

No.	Report Page	Comment	Response
			Staff Report which includes Section 7.4, *Special Studies and Reconsiderations*.
B2.85	102	As stated in the text, "wet weather events may produce extensive sediment redistribution and transport sediments to the harbors." It is also stated in Appendix II that "...pollutant sources and their means of transport to receiving waters vary between wet and dry conditions (McPherson et al. 2005a; RWQCB 2005a, 2005b, 2005c; Stein et al. 2003)." In other words, wet weather conditions may influence where sediment and associated contaminants are transported and deposited in the sediment bed. Although sediment bed concentrations may not vary significantly during wet and dry weather conditions, transport conditions may vary significantly. Hence, accuracy of wet and dry weather watershed loadings, as well as transport conditions, may be important in assessing the long -term sedimentation conditions, which represent the combined effects of wet and dry weather conditions. Because the TMDL is based on sediment deposition calculated by the EFDC model, the model must be calibrated for both dry and wet weather conditions. Currently, the EFDC model has been "calibrated" for dry weather conditions and the model has not been evaluated to assess the accuracy in sediment deposition. Field data in the Dominguez Channel Estuary and Inner Harbor used for the dry weather EFDC model calibration did also include wet weather data from February and March 2006.	See response to **Comment M1.10** in the Port's Modeling response to comment document.
B2.86	102	A recommended rewrite of this section has been provided to address the concerns presented in these comments. Implementation should include a discussion of natural and assisted recovery (see Attachment 12).	Comment noted.
B2.87	105	A recommended rewrite of this section has been provided to address the concerns presented in these comments.	Comment noted.
B2.88	111	The inclusion of fish tissue compliance into Figure 7 -1 has provided an awkward pathway for compliance. A recommend review of this section and revisions to the	Commenter may be referring specifically to Figure 1 of the August 2010 implementation document

No.	Report Page	Comment	Response
		figure offer an approach that is more appropriate. Implementation should include a discussion of natural and assisted recovery (see Attachment 12).	submitted by the Ports as Appendix 12.D. This Figure, previously submitted to the Regional Board, does not consider fish tissue targets. It will, in fact, be necessary for the responsible parties to achieve the fish tissue targets during the 20 year implementation schedule of the TMDL. On natural and assisted recovery, Staff assume the commenter refers to the sixth of the 6 Attachment 12s (12.F) provided (a PowerPoint assembled by Anchor QEA: Incorporating Rate of Recovery Studies in TMDL Implementation and Compliance Battelle –International Conference of Remediation of Contaminated Sediments New Orleans, Louisiana) As the PowerPoint title illustrates, studies of the rate of recovery can be used in implementation and compliance with the TMDL. Certainly the any natural recovery in the Harbor sediment over the 20 year implementation of the TMDL will assist with compliance with the TMDL. The Harbors may and should consider natural recovery in their sediment management plan.
B2.89	115	It states that "A relationship between sediment constituent concentrations and fish tissue constituent concentrations exists; however, the quantification of that relationship (i.e., what concentrations in sediment lead to levels of concern in fish) is not well understood in the waterbodies addressed in the Harbor TMDLs." For this reason, WLAs (Table 6 -12) should not be determined until a site -specific sediment and fish tissue linkage study is completed. Furthermore, a linkage analysis (linkage of the source of the impairment to contaminant sources) is mandated by USEPA	This is Section 7.4 of the Staff Report, *Special Studies and Reconsiderations* which discusses optional special studies which can be used during a TMDL reconsideration to make refinements to the targets or allocations.

No.	Report Page	Comment	Response
		TMDL guidance. Thus, it is not optional but critical that the sediment and fish tissue linkage study be conducted during Phase I and be conducted prior to implementing allocations for sediment for meeting fish tissue targets. Specifically, the TMDL should use the interim sediment goals, as given in Table 6 -8 (corrected using the complete port database [see Attachment 8), to calculate interim WLA values. This can be done using the approach suggested herein, instead of the approach used to develop Table 6 -10. These WLAs can then be used in NPDES permitting. This is important, because by presenting only final WLA values in Table 6 -10, overly conservative (and incorrect) WLA values will be used in permitting. Due to anti -backsliding provisions, it is likely to be difficult or impossible to develop future NPDES permit values less stringent than Table 6 -10, which would run counter to the aims of this TMDL, which are appropriate to use the weight of evidence in the SQO process to determine attainment.	See response to **Comment 20.4** in the public comments response document.
B2.90	116	A recommended rewrite of this section has been provided to address the concerns presented in these comments.	Comment noted.
B2.91	119	The requirement to monitor sediments every 2 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 hundreds of years. Therefore, sampling every 2 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 WRAP control measures and have those actions result in an effect on bed sediments, 2 -year intervals will not provide insight in changes to sediment quality related to accumulation of sediment. As such, the frequency of sediment chemistry sampling should be revised to once every 5 years or at a minimum the frequency should be revised to once every 5 years for the first 15 years of the	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 data every two years will be of great value.

No.	Report Page	Comment	Response
		TMDL, during which time watershed controls and WRAP control measures are being established.	
B2.92	121	Tissue monitoring implies biannual sampling of three species at 17 locations within POLA/POLB, no tissue sampling in the Dominquez Channel Estuary, and sampling at four locations for all of Eastern San Pedro Bay. However, the selection of monitoring locations is premature prior to conducting a linkage analysis to understand the sources of constituent contaminant concentrations to fish tissue. Furthermore, prior to selection of species to monitor, it is necessary to identify the most commonly consumed species. USEPA guidance for assessing contaminant data in fish tissue advisories mandates exposure assessments be evaluated with a mixture of consumed species (2000). Evaluating attainment of targets with species that pose the biggest risk to human health in effect lowers the target, when the diet of the local population is mixture of fish species with varying degrees of contamination.	See response to **Comment B1.32**.
B2.93	122	The schedule cannot be met for several tasks. • Task 1: The interim load allocations for bedded sediment, based on values currently presented in Table 6 -8, will not be met on the effective date of the TMDL. • Task 5: Data from the benthic infauna analysis will not be available and validated until June 2015 (SCCWRP controls timeline of validation process). Follow -up stressor identification studies will be underway and not complete until 2.5 years after the monitoring or approximately 4.5 years after the effective date of the TMDL. These evaluations must occur at specific times (field work is conducted between June and September). • Task 11: While it is the Port's intent to remediate sediments with contaminant concentrations shown to cause impairments, all of the sediment remediation programs will not be completed during Phase II (with a timeline of 15 years) due to the logistical constraints of construction programs in an active port. The areas requiring management will be identified and actions will be made to promote the remediation actions, but tenant relocation, alignment with port projects to	Staff note that the implementation schedule was discussed at length with representatives of the Ports on several occasions and staff took care to accommodate the Ports concerns especially in light of coordinating SQO measurements with Bight studies for cost savings; Port experience in project schedules including CEQA documentation, and permitting and project execution; and the Ports desire to have flexibility to coordinate and necessary remediation dredging with maintenance or other project dredging. Task 1. See response to **Comment B1.18.** Task 5. The Implementation Plan and Contaminated Sediment Management Plan do not

No.	Report Page	Comment	Response
		accommodate the material being dredged, EIR/EIS approval and permitting will dictate remediation schedules. If the TMDL is enforced as written, dredging or dredging/capping are the only implementation alternatives that would achieve the sediment targets in the implementation time frame; therefore, the lead agency can reasonably foresee the specific large -scale dredging will be required and the SED must adequately and quantitatively analyze the environmental impacts of dredging/capping within the harbor and San Pedro Bay to meet the TMDL. • Task 11: The text suggests TIWRP will eliminate discharge completely in 2020 (page 59). There is significant input from this source (greater than the loading capacity), any potential remediation actions in Outer Harbor cannot be considered until after discharge is stopped. • Task 12: If the TMDL is enforced as written, dredging or dredging/capping are the only implementation alternatives that would achieve the sediment targets in the implementation time frame; therefore, the lead agency can reasonably foresee the specific -large scale dredging will be required and the SED must adequately and quantitatively analyze the environmental impacts of dredging/capping within the harbor and San Pedro Bay to meet the TMDL. • Task 13: If the TMDL is enforced as written, dredging or dredging/capping are the only implementation alternatives that would achieve the sediment targets in the implementation time frame; therefore, the lead agency can reasonably foresee the specific large -scale dredging will be required, and the SED must adequately and quantitatively analyze the environmental impacts of dredging/capping within the harbor and San Pedro Bay to meet the TMDL. In addition, request the language be changed to water quality targets met (not LAs and WLAs). Implementation should include a discussion of natural and assisted recovery (see Attachment 12).	need to wait for the final benthic infaunal analysis. The critical parts of the Implementation Plan and Contaminated Sediment Management Plan will be the schedule of the remediation of identified 'hotspots' (such as Consolidated Slip and Fish Harbor) the detailed sediment sampling plan and fish collection locations, a proposed method for determining the number of sites included in one station assessment (i.e. each site alone, or some number to be averaged). Task 11. In the City of Los Angeles (Bureau of Sanitation) comment letter, the City clarified that the TIWRP is not under an order to stop discharge. The City has not offered a schedule for stopping discharge. Does the City of Los Angeles (Port of Los Angeles) mean to suggest that the discharge is scheduled to cease? In either case, the TIWRP can cease discharge or comply with the allocations set forth in the TMDL. Task 12. See response to **Comment 36.6** in the public comments response document and the responses to the Ports specific CEQA comments. Task 13. See response to **Comment 36.6** in the public comments response document responses to the Ports specific CEQA comments.
B2.94	123	The estimated cost for implementing the "Sediment Removal/Dredging" component of TMDL implementation is factually flawed and technically inaccurate. The per cubic yard estimate of $60.84 for dredging, dewatering, rehandling, transporting,	Staff assumes the responsible parties will work to contain costs and will not dredge areas that are found to be in compliance. Because of the SQO

No.	Report Page	Comment	Response
		and disposing of contaminated sediments is not accurate based on current and predicted future market conditions in Southern California. Furthermore, the estimated cost does not consider related capital expenses, such as facility upgrades (e.g., power substations to allow for electric dredging, development of a dewatering and rehandling facility, and rail line upgrades) required to manage the volume of sediment removal predicted for the region. The estimated dredging cost used in the TMDL is based on a 1998 study conducted for Marina del Rey Harbor by the USACE and represents an average range of management costs that include open -water disposal at the low end up to landfill disposal at the upper end of the price range. Any sediment that is removed as a WLA action will be "contaminated" in nature and certainly will not qualify as suitable for open ocean disposal. As such, considering inexpensive ocean disposal management costs in the cost summary underestimates the true cost of implementation. Furthermore, the landfill disposal cost estimate provided in the Moffat and Nichol (1998) study assumed transport via truck and disposal at a local landfill. However, given the very large volume of dredged material that would need to be removed to comply with the fish tissue component of the TMDL (38 million cubic yards), truck transport will not be an option simply due to the air quality and transportation impacts as well as the logistical feasibility of cycling 2.6 million round trip truck trips through the harbor. Similarly, the current landfills in the state of California are not capable of receiving the volume of sediment proposed for disposal. As such, a more realistic disposal scenario would include disposal via rail line at one of the larger private landfills located in Utah, which would be capable of receiving very large volumes of material. Implementing a rail disposal management option at the harbor would consist of locating and permitting the construction of a large (approximately 10 acre or larger) on -site, nearshore processing facility to offload, dewater, and load to rail the sediments for disposal at an inland landfill. Once loaded, the rail cars would be transported to Utah where private facilities are in place to handle large quantities of contaminated sediments. The estimated costs (using 2010 unit prices projected	compliance option (and the natural attenuation assumed by commenter in Comment B2.88) the suggested 'high' cu yd estimate in Attachment 9.C is not going to be undertaken. Given this, the Ports estimate is about 2.5 times what the Regional Board estimated. Nonetheless, see response to **Comment 23.9 and 30.21** in the public comments response document.

No.	Report Page	Comment	Response
		forward to 2015 dollars) for dredging, dewatering, and disposing of the sediments is $221/cubic yard (see table in Attachment 9). This estimate does not include the capital development costs associated with sighting and permitting a suitably sized offloading facility, upgrading the rail lines to access the offloading facility, adding power substations to allow the use of electric dredges at all areas of the Inner and Outer harbors that would require dredging, or wharf upgrades required to allow significant dredging along the marine structures. Adding conservative estimates for each of these items would add considerably to the total implementation costs. The TMDL estimates a total implementation cost for the dredging and disposal portion of the compliance section at $679 million. Considering the cost adjustments discussed above and presented in table in Attachment 9, a more accurate estimate of the true implementation cost is closer to $9 billion. This value does not consider lost revenues for the space occupied by the sediment rehandling facility or potential mitigation costs, which are impossible to estimate at this time because they will vary depending on the projected real estate market at the time the work is conducted. A memorandum discussing major impacts associated with dredging as a remediation alternative in the TMDL is provided in Attachment 9.	
B2.95	123	The cost analysis for stormwater discharges as presented in the Staff Report is inaccurate and outdated. The cost analysis for sand/organic filters is based on case studies conducted more than 14 years ago (in 1997), and the costs to construct vegetated swales are based on 2003 information. However, it is unlikely that vegetated swales and sand filters are capable of treating stormwater end of pipe discharges to CTR levels. Based on a study completed in January 2011 provided in Attachment 11, there does not appear to be a currently available treatment technology with the demonstrated ability to consistently treat stormwater to concentrations below the CTR criteria for metals. However, a "treatment train" approach was explored, consisting of media filtration followed by ion exchange as the basis for estimating costs that could be incurred to comply with requirements to treat runoff from the harbor to CTR concentrations. According to the results of the	The TMDL presents a reasonable range of costs, shared by many responsible parties over a period of twenty years.

No.	Report Page	Comment	Response
		study, annual costs ranged from $42,052,000 to $141,488,000 for treatment of stormwater discharges from the harbor alone, depending on the size of the design storm.	
	Ports' Attachment "Technical Comments" Table 4 Basin Plan Amendment Comments		
B4.1	7	The statement, "The SED identifies mitigation methods for impacts with potentially significant effects and finds that these methods can mitigate potentially significant impacts to levels that are less than significant. To the extent that there are significant adverse effects on the environment due to the implementation of this TMDL, there are feasible alternatives and/or feasible mitigation measures that would substantially lessen significant adverse impacts.", is not properly supported. The level of significance determinations are required to be supported by substantial evidence per CEQA guidelines 15384. There must be enough relevant information and reasonable inferences from the information available that a fair argument can be made to support a conclusion. The analysis in the SED is unsubstantiated narrative, which does not rely on technical and/or specific data inclusion or by reference. The environmental checklist (starting on page 28) identifies 80 percent of the items as potentially significant. The evaluation considered whether the construction or implementation of BMPs would cause a substantial, adverse change in any of the physical conditions within the area affected by BMPs. Structural BMPs are identified as installing infiltration systems, vegetated swale, sand/media filter, oil/water separators, and catch basin inserts; removing contaminated sediments in the harbor; and diverting the low flow runoff. Non-structural BMPs include public education and outreach, trash collection/street sweeping, and storm drain cleaning. The significance determinations are based on the implementation of these BMPs, yet there are neither specific areas nor projects associated with said action. In addition, there are no calculations and/or technical analysis to support the number of BMPs necessary to properly mitigate specified potential impacts.	See response to **Comment 20.8** in the public comments response document.
B4.2	8	The California Secretary of Resources has certified the SWRCB and RWQCB's	Commenter quotes CCR.

No.	Report Page	Comment	Response
		basin planning process as exempt from certain requirements of CEQA, including preparation of an Initial Study, Negative Declaration, and Environmental Impact Report (CCR, Title 14, Section 15251[g]). As the proposed BPA is part of the basin planning process, the environmental information developed for and included with the amendment is considered a substitute for an Initial Study, Negative Declaration, and/or Environmental Impact Report. However, per CEQA Guidelines, Article 17, 'Exemption for Certified State Regulatory Program' Section 15250 General—which is the opening paragraph to the aforementioned Section 15251 (g)—states that "A certified program remains subject to other provisions in CEQA such as the policy of avoiding significant adverse effects on the environment where feasible". The SED is required by CEQA California Public Resources Code Section 21159 to comply as follows: a. An agency listed in Section 21159.4 shall perform, at the time of the adoption of a rule or regulation requiring the installation of pollution control equipment, or a performance standard or treatment requirement, an environmental analysis of the reasonably foreseeable methods of compliance. In the preparation of this analysis, the agency may utilize numerical ranges or averages where specific data is not available; however, the agency shall not be required to engage in speculation or conjecture. The environmental analysis shall, at minimum, include, all of the following: 1. An analysis of the reasonably foreseeable environmental impacts of the methods of compliance. 2. An analysis of reasonably foreseeable feasible mitigation measures. 3. An analysis of reasonably foreseeable alternative means of compliance with the rule or regulation. b. The preparation of an environmental impact report at the time of adopting a rule or regulation pursuant to this division shall be deemed to	

No.	Report Page	Comment	Response
		satisfy the requirements of this section. c. The environmental analysis shall take into account a reasonable range of environmental, economic, and technical factors, population and geographic areas, and specific sites. d. Nothing in this section shall require the agency to conduct a project level analysis. e. For purposes of this article, the term "performance standard" includes process or raw material changes or product reformulation. f. Nothing in this section is intended, or may be used, to delay the adoption of any rule or regulation for which an analysis is required to be performed pursuant to this section. A "reasonable range" does not require an examination of every site, but a reasonably representative sample of them. Revision to the SED analysis shall include a representative sample of projects selected in consultation with the harbor. These projects and/or specific sites would represent a cross section of work that includes potential toxic and sediment impacts. The projects should be analyzed at the programmatic level per Section 21159, items a through f.	See response to **Comment 22.10 and 36.10** in the public comments response document.
B4.3	19	Infiltration systems are infeasible in large portions of the harbor due to the high groundwater table and the large surface areas needed to implement these systems. Depth to groundwater must be greater than 10 feet to implement an infiltration system successfully, and in the majority of the harbor, depth to groundwater is greater than 10 feet. Mobilization of legacy contamination plumes and geotechnical concerns also must be considered.	See response to **Comment 20.8** in the public comments response document.
B4.4	19	Vegetated swales are infeasible in large portions of the harbor due to the high groundwater table and the large surface areas needed to implement these systems.	See response to **Comment 20.8** in the public comments response document.
B4.5	20	The description regarding dredging is not sufficient and does not include accurate assumptions for proper CEQA analysis to be performed. Assumptions for analysis	See response to **Comment 20.8** in the public comments response document.

No.	Report Page	Comment	Response
		must be discussed, such as the amount of material likely to be dredged, methods of dredging (the description only describes hydraulic dredging, when clamshell dredging is an equally likely method of dredging), long-term duration of dredging operations needed to meet TMDLs, estimated amount of truck trips or rail trips for disposal of such a large volume of material. Additionally, there is no discussion or assumptions about capping in the project description to allow the public to understand the activities involved with the capping option. Having identified dredging/capping as a method of compliance, and the fact that dredging/capping would only occur in the harbor area, the lead agency can reasonably foresee the specific area where dredging would be performed and should analyze the environmental impacts of dredging/capping within the harbor and San Pedro Bay to meet TMDLs. As stated on page 8 of the draft SED, "the environmental analysis shall take into account a reasonable range of environmental, economic, and technical factors, population and geographic areas, and specific sites."	
B4.6	20	Low flow diversion systems are often infeasible at the harbor. The local sanitation districts are not willing in many situations to accept additional flow even in dry weather. Non-stormwater flows are substantial in the harbor due to groundwater infiltration into storm drain lines. Lines are often built below the water table.	See response to **Comment 20.8** in the public comments response document.
B4.7	23	The only available method to feasibly approach achieving compliance with water quality targets (CTR) at the harbor is treatment control BMPs (see AMEC technical memorandum provided in Attachment 11). Therefore, the TMDL is mandating a method of compliance, and the draft SED must adequately and quantitatively analyze the impacts associated with the installation of treatment control BMPs throughout the harbor and the watershed.	See response to **Comment 20.8** in the public comments response document.
B4.8	36	It is incorrectly stated that dredging would not be to the depth or scale to cause unstable conditions or changes in geological substructures. It is estimated that 11-35 million cy of material (Draft RWQCB Staff Report, Table 7-3) will need to be removed in order to meet the TMDL. To comply with the fish tissue component of the TMDL, up to 38 million cy will need to be removed (see fish target exceedance	See response to **Comment 20.9 and 20.10** in the public comments response document.

No.	Report Page	Comment	Response
		memorandum provided in Attachment 9). Dredging and or capping would be large in scale, would affect most of the harbor, and have potential significant impacts. Dredging around the wharves may cause unstable conditions in the slopes supporting the wharf faces, which can compromise the structural integrity of the wharves. Sediment capping would cause changes in geological substructures, because placing material would raise the height of the harbor bottom. Depending on the location within the harbor, certain depths are necessary to be maintained to ensure navigational safety for vessels. This section must be revised to properly analyze the potential significant impacts of dredging and/or sediment capping and include a discussion on feasible mitigation measures or alternatives that would reduce potentially significant environmental impacts.	
B4.9	37	It is incorrectly stated that dredging would not be to the depth or scale to result in disruptions or displacement of soil/sediment. It is estimated that 11-35 million cy of material (Draft RWQCB Staff Report, Table 7-3) will need to be removed in order to meet the TMDL. To comply with the fish tissue component of the TMDL, up to 38 million cy will need to be removed (see fish target exceedance memorandum provided in Attachment 9). Dredging and or capping would be large in scale, would affect most of the harbor, and disrupt or displace a large extent of sediment in the harbor. This section must be revised to properly analyze the potential significant impacts of dredging and/or sediment capping and include a discussion on feasible mitigation measures or alternatives that would reduce potentially significant environmental impacts.	See response to **Comment 20.9 and 20.10** in the public comments response document regarding the amount of materials to dredge.
B4.10	38	It is incorrectly stated that dredging or sediment capping would not be of size or scale to have any impacts to topography or ground surface relief features. It is estimated that 11-35 million cy of material (Draft RWQCB Staff Report, Table 7-3) will need to be removed in order to meet the TMDL. To comply with the fish tissue component of the TMDL, up to 38 million cy will need to be removed (see fish target exceedance Memorandum provided in Attachment 9). Dredging and or capping would be large in scale, would affect most of the harbor, and would result in significant changes to the topography of the ocean floor and bottom surface relief features. Especially in terms of capping, certain depths are necessary to be maintained within the harbor to ensure navigational safety for vessels. This section	Staff disagrees. The ports conduct regular dredging throughout the port to maintain the safe navigability of vessels. Due to this dredging and consistent and continuous boat traffic, the topography and geologic features within the ports are already in a constant state of flux. If dredging or dredging and capping were pursued as a potential method of compliance, it would be reasonable to assume that certain depths may need to be maintained to ensure save the navigability of

No.	Report Page	Comment	Response
		must be revised to properly analyze the potential significant impacts of dredging and/or sediment capping and include a discussion on feasible mitigation measures or alternatives that would reduce potentially significant environmental impacts. It is incorrectly stated that infiltration systems and vegetated swales would not be of the size or scale to result in a change in topography and ground surface relief figures. Large volumes of stormwater would require substantial changes to the topography of the harbor to provide adequate infiltration. There is no substantial evidence supporting the statement that these alternatives would have no impact.	vessels. In fact additional dredging maybe potentially beneficial for the ports as greater depths and clearance may aid in the navigation of larger vessels that have a greater draft as seen in the current Port of Los Angeles Channel Deepening Project. Also see response to **Comment 20.9 and 20.10** in the public comments response document regarding the amount of materials to dredge.
B4.11	39	It is incorrectly stated that dredging or sediment capping would not be of size or scale to have any impacts and would not result in the destruction, covering, or modification of unique geologic or physical features. It is estimated that 11-35 million cy of material (Draft RWQCB Staff Report, Table 7-3) will need to be removed to meet the TMDL. To comply with the fish tissue component of the TMDL, up to 38 million cy will need to be removed (see fish target exceedance memorandum provided in Attachment 9). Dredging and or capping would be large in scale, would affect most of the harbor, and would result in significant modifications to unique underwater geologic or physical features. Dredging to remove contaminated sediments would result in destruction and modification of the topography of the ocean floor. Capping will result in covering unique geologic features of ocean floor. This section must be revised to properly analyze the potential significant impacts of dredging and/or sediment capping and include a discussion on feasible mitigation measures or alternatives that would reduce potentially significant environmental impacts.	See response to **Comment B4.10**.
B4.12	44	Dredging up to 38 million cy of material within 15 years to meet the TMDL would cause adverse impacts in air quality in terms of the continuous, long-term duration of dredging operations as well as trucks trips to dispose of dredged material. It would take 2.6 million round-trip truck trips to dispose of 38 million cy of material (see supporting materials in Attachment 9). The estimated air emissions of the truck trips	Also see response to **Comment 20.8, 20.9, and 20.10** in the public comments response document.

No.	Report Page	Comment	Response
		as well as the estimated air emissions from the dredge equipment must be quantified. Mitigation measures for dredging are inadequate, because only trucks and heavy construction equipment were evaluated. Theses mitigation measures do not address the dredge equipment itself. The draft SED failed to discuss and properly analyze the direct and indirect impacts of electric dredging as a mitigation measure to address air emissions from the dredge equipment. There is no substantial evidence supporting the statement that mitigation measures will reduce these impacts to less than significant levels without a quantitative analysis. Stormwater treatment systems capable of achieving the water quality targets set in the TMDL will be large capital improvement projects with substantial air impacts related to construction. Because this method is the only approach capable of achieving compliance, air (criteria pollutants) impacts from construction of these treatment facilities should be quantitatively analyzed. There is no substantial evidence supporting the statement that mitigation measures will reduce these impacts to less than significant levels without a quantitative analysis. In general, the mitigation measure of using emulsified diesel fuel to reduce air emissions from trucks is not a valid mitigation measure, because emulsified diesel fuel is not readily available on the market. Additionally, there is no discussion as to if the project would conflict with federal and state air quality goals/attainment standards.	
B4.13	47	It is incorrectly stated that air emissions resulting from installation, construction, and maintenance of structural and non-structural BMPs would not be significant to cause climate change and would not conflict with the state's ability to meet AB32 goals. There is no substantial evidence that supports the determination of less than significant impact. Because electric dredging is a foreseeable mitigation measure, the energy needs, as well as GHG emissions, for this approach must be quantified. In addition, the number of truck trips for disposal of material would be a large source of GHG emissions. It is also stated that the relative contributions of the implementation program, when compared to the estimated GHG reduction goal of 174 million tons	The SED has evaluated the potential impacts on greenhouse gases. See SED, page 59, section on air impacts. The Resources Agency recently revised the CEQA Guidelines to address greenhouse gases. The revised guidelines state that the agency should make a good faith effort to estimate the amount of greenhouse gases from the project, assess the environmental significance of greenhouse gases, and identify mitigation

No.	Report Page	Comment	Response
		CO_2e by 2020, are small by comparison. However, there is no quantification of the "small" contributions of the program that would allow the public to be able to validate this statement. Stormwater treatment systems capable of achieving the water quality targets set in the TMDL will be large capital improvement projects with substantial GHG impacts related to construction. Because this method is the only approach capable of achieving compliance, CO_2e impacts from construction of these treatment facilities should be quantitatively analyzed. There is no substantial evidence supporting the statement that mitigation measures will reduce these impacts to less than significant levels without a quantitative analysis.	measures. The SED is consistent with these new regulations. It includes an estimate of greenhouse gases, discusses the significance, and identifies potential mitigation with respect to reasonably foreseeable methods of compliance.
B4.14	48	Mitigation of adequate modeling, siting, and planning is not a feasible mitigation measure. Dredging is intended to remove contaminated sediments from the environment, and dredging will must be performed where indicated by sampling results. Dredging operations cannot be "sited" so as not to cause environmental impacts. Because there are no mitigation measures to reduce potential impacts, it should be stated that dredging is an unavoidable significant impact.	Also see response to **Comment 20.8 and 20.9** in the public comments response document.
B4.15	52	The discussion does not provide a linkage between dredging of sediment and improving water quality. Increasing the depth to provide greater storage area for water, which will improve water quality, is not substantiated by facts; essentially describing that dilution of harbor waters by surface runoff or rainwater would improve water quality.	The linkage analysis for the reduction of existing sediment loading and water quality is included in staff report along with the corresponding modeling estimates for the existing sediment load and freshwater load. Increased surface water without increases loadings from surface water equates to a larger assimilative capacity for the waterbody thereby assisting in meeting targets.
B4.16	53	Proposed mitigation measure of using small cutterhead dredges is infeasible. There are other dredging methods that are foreseeable, such as clamshell dredging, and these methods are not analyzed nor are mitigation measures proposed. The	Staff disagrees. The SED indicates the potential for significant impact to existing water quality from dredging, especially if proper timing, citing, and

No.	Report Page	Comment	Response
		discussion states that dredging is expected to degrade water quality, which contradicts the discussion on page 52 that states that dredging will improve water quality.	mitigation are not employed. However, these impacts already exist when the ports conduct regular navigation-related dredging. The impacts are temporary for the duration of dredging and are unlikely to effect to long term water quality. Increased assimilative capacity aids in long term water quality. Also see response to **Comment B4.15 and 20.10** in the public comments response document.
B4.17	54	Infiltration systems at the harbor could potentially mobilize legacy plumes of groundwater contamination negatively impacting ongoing remediation activities. There is no substantial evidence supporting the statement that mitigation measures will reduce these impacts to less than significant levels without a quantitative analysis.	See response to **Comment 20.8** in the public comments response document.
B4.18	59	This section needs to include a discussion of the adverse impacts to the harbor bottom and plant life and destruction of habitat from dredging and capping. Mitigation measure of limiting the extent and duration of dredging to lessen impacts to plant life is infeasible and should be removed from the text. If sampling indicates that an area does not meet sediment or fish tissue targets, dredging must occur to remove contaminants; cannot "site" the dredging in another location. As stated in the draft RWQCB Staff Report (page 15), there is eelgrass habitat within the harbor, but there is no discussion in the draft SED of potential impacts to eelgrass or the need to mitigate for any impacts to eelgrass habitat destroyed as a result of dredging. A proper analysis of impacts to eelgrass habitat must be included in the section, and it should be stated that impacts to biological resources are significant and unavoidable.	The majority of eelgrass habitat is concentrated in the nearshore area around the beaches. Some of the areas proposed for dredging are located away from this habitat and should not be impacted. To the extent that dredging may impact plant life in habitat loss, responsible parties may chose to mitigate these impacts through adherence to NOAA's NMFS Southern California Eelgrass Mitigation Policy. Acute impacts are temporary for the duration of dredging and are unlikely to effect to long term water quality. Habitat may also be replaced in other locations or restored to locations which maybe proposed for dredging to allow the reestablishment plant, animal, and benthic species.

No.	Report Page	Comment	Response
			The SED will be revised to include additional discussion of impacts to plant life from dredging. Also see response to **Comment B4.18 and 20.8 and 20.10** in the public comments response document.
B4.19	63	The mitigation measure discussed in this section is infeasible, as the extent and duration of dredging cannot be limited to lessen impacts to benthic organisms and other animal species. If sampling indicates that an area does not meet sediment or fish tissue targets, dredging must occur to remove contaminates; cannot "site" the dredging in another location. Only hydraulic dredging impacts are discussed, and there is no discussion of clamshell dredging. There is no discussion of existing benthic health of the sediment. Because existing conditions are healthy (Attachment 2), dredging may be more detrimental and destructive than beneficial, because dredging/capping would destroy benthic habitat that is thriving and healthy. Additionally, in Section 5.b., the California brown pelican is no longer on the threatened or endangered list, and the text should be revised.	The staff report and SED will be revised to address this comment. See response to **Comment B4.18 and 20.8, 20.9, and 20.10** in the public comments response document.
B4.20	71	It is stated that dredging will have significant impacts to the deterioration of existing fish and wildlife habitat, but no mitigation is proposed to lessen impacts. It should be stated that dredging is an unavoidable significant impact and that because existing conditions are healthy (Attachment 2), dredging may be more detrimental and destructive than beneficial. The text discusses only impacts of hydraulic dredging. Other types of dredging methods, such as clamshell dredging, must be analyzed or discussed.	See response to **Comment B4.18 and 20.8, 20.9, and 20.10** in the public comments response document.
B4.21	72	It is stated in regards to dredging and low flow diversions that noise impacts as a result of these implementation activities will be reduced to less than significant once mitigation measures have been properly applied. Additionally, it is stated that	See response to **Comment B4.18 and 20.8, 20.9, and 20.10** in the public comments response document.

No.	Report Page	Comment	Response
		increases in ambient noise levels for installation of all structural BMPs are expected to be less than significant once mitigation measures have been applied. There is no substantial evidence to support these determinations. Without any quantitative analysis comparing the difference between baseline noise levels and future noise levels versus significance thresholds, it cannot be determined whether mitigation measures would reduce the impacts to less than significant. In terms of dredging, only hydraulic dredging method is discussed. There is no discussion on noise impacts from clamshell dredging operations or noise levels from trucks/trains transporting dredged material. A quantitative analysis of noise impacts must be performed to support the determination that implementing proposed mitigation measures would reduce noise impacts to less than significant.	
B4.22	78	It is stated that infiltration systems, vegetated swales, stormwater capture systems, media filters, diversion, and/or treatment BMPs are not expected to result in substantial alterations or adverse impacts to present or planned land use. These BMPs all will have a substantial footprint on port terminals and decrease acreage currently used for goods movement. As a trustee of California state lands, the Ports of Los Angeles and Long Beach are obligated to use lands in the harbor district for the highest and best use. Reasonably foreseeable impacts on port operations should be adequately and quantitatively analyzed. There is no substantial evidence supporting the statement that mitigation measures will reduce these impacts to less than significant levels without a quantitative analysis. It is also stated that construction of structural treatment devices will not result in permanent features, such as above ground infrastructure, that would disrupt, divide, or isolate existing land uses. Incorporation of these structural BMPs on an operational marine terminal can potentially disrupt, divide, or isolate terminal operations. These impacts must be adequately and qualitatively analyzed. There is no substantial evidence supporting the statement that mitigation measures will reduce these impacts to less than significant levels without a quantitative analysis.	See response to **Comment B4.18 and 20.8, 20.9, and 20.10** in the public comments response document.
B4.23	81	It is stated that structural BMPs will not result in a generation of substantial	See response to **Comment B4.18 and 20.8, 20.9,**

No.	Report Page	Comment	Response
		additional long-term vehicular movement. It is estimated that 2.6 million round-trip truck trips would be needed to dispose of 38 million cy of material (see supporting materials in Attachment 9). This amount of truck trips is a substantial increase within the vicinity of the harbor and the regional transportation network. Disposal in a port fill site is limited and the majority of the material will need to be disposed of in an upland landfill. In addition, there are not enough certified trucks available for that level of waste movement, and so rail cars may be the only option for moving that volume of sediment. There will be substantial impacts upon existing transportation systems and significant impacts to circulation of people and goods as these truck/rail trips will not be limited and short term. A traffic management plan is not an adequate mitigation measure to address significant impact to transportation systems. Further analysis must be performed on the potential significant traffic impacts.	**and 20.10** in the public comments response document.
B4.24	82	It is stated that the potential impacts would be limited and short term. Permanent structural BMPs on port terminals would have the potential to substantially impact goods movement. The construction and operation of numerous stormwater treatment systems would require large areas of land and terminal space as well as altering existing terminal operations and movement of goods (see AMEC technical memorandum provided in Attachment 11).	See response to **Comment B4.18 and 20.8, 20.9, and 20.10** in the public comments response document.
B4.25	83	It is stated in the discussion that there are potentially significant impacts; however, on the checklist, it is stated that there is no impact. This discrepancy must be fixed. It is incorrectly stated that dredging would result in short-term impacts to waterborne traffic. Dredging would need to be performed 24 hours a day, 7 days a week, over a 15-year period in order to meet the TMDL and would result in impacts to waterborne traffic if dredging should be performed near active berths and within busy shipping channels. No mitigation measures are proposed, and no substantial evidence presented that waterborne traffic impacts would be reduced to less than significant levels.	The SED will be revised to address this comment. See response to **Comment B4.18 and 20.8, 20.9, and 20.10** in the public comments response document.
B4.26	87	Stormwater treatment systems needed to comply with the TMDL will have	See response to **Comment B4.18 and 20.8, 20.9,**

No.	Report Page	Comment	Response
		substantial maintenance requirements with substantial costs, which should be analyzed adequately and quantitatively. There is no substantial evidence supporting the statement that mitigation measures will reduce these impacts to less than significant levels without a quantitative analysis.	**and 20.10** in the public comments response document.
B4.27	88	Electric dredging is a foreseeable mitigation measure and will require new substations to be constructed in the harbor area to reach all potential dredge areas. The large extent of the harbor that will need to be dredged and the substantial amount of electricity used to power the dredge equipment will result in a substantial increase in demand upon existing sources of energy. The significant impacts of this method must be properly and adequately analyzed. The stormwater treatment systems required to comply with the TMDL water quality targets will have energy consumption impacts that must be adequately and qualitatively analyzed. There is no substantial evidence supporting the statement that mitigation measures will reduce these impacts to less than significant levels without a quantitative analysis.	See response to **Comment B4.18 and 20.8, 20.9, and 20.10** in the public comments response document.
B4.28	89	Comment same as above.	See response to **Comment B4.27**.
B4.29	91	In many situations, the local sanitation districts are not willing to accept additional flows even in dry weather. Bypass systems for rain events are not a feasible mitigation measure due to the inability of local POTWs to take on any additional capacity.	See response to **Comment B4.18 and 20.8, 20.9, and 20.10** in the public comments response document.
B4.30	91	The treatment systems needed to comply with the TMDL will require substantial alterations to the harbor's stormwater infrastructure. These alterations must be analyzed adequately and quantitatively. There is no substantial evidence supporting the statement that mitigation measures will reduce these impacts to less than significant levels without a quantitative analysis.	See response to **Comment B4.18 and 20.8, 20.9, and 20.10** in the public comments response document.

No.	Report Page	Comment	Response
B4.31	93	It is estimated that 11-35 million cy of material (Draft RWQCB Staff Report, Table 7-3) will need to be removed to meet the TMDL. To comply with the fish tissue component of the TMDL, up to 38 million cy will need to be removed (see fish target exceedance memorandum provided in Attachment 9). Dredging will result in a large amount of dredged material that will need to be disposed. It is not discussed in detail the significant adverse impacts to landfill sites, and the fact that landfill site within California may not have the capacity to accept this amount of material. Material may have to be trucked to landfills located out of state. While fill material may be used for new landfill within the harbor, it is not known if and where it might be used. It is incorrect to state and assume that the material will be used for expansion of the terminal's on-dock rail yard. This statement is highly speculative and must be removed from the text. A discussion on the possibility of the lack of capacity in landfills and port fills to properly dispose of the dredged material, and how this action will result in a significant impact that cannot be mitigated, should be added. A new waste stream from the required stormwater treatment units will be generated and will have to be properly disposed. This impact should be adequately and quantitatively analyzed. There is no substantial evidence supporting the statement that mitigation measures will reduce these impacts to less than significant levels without a quantitative analysis.	Implementation of upstream TMDLs (e.g., metals and bacteria TMDLs) may result in the installation of structural BMPs which also capture and retain sediment and treatment multiple pollutants simultaneous in the upstream watersheds and downstream receiving watersheds. Also see response to **Comment B4.18 and 20.8, 20.9, and 20.10** in the public comments response document.
B4.32	95	There is no discussion in this section of the health impacts from diesel particulates from substantial increase in truck trips or rail operations needed to dispose of dredged material or from heavy construction equipment for installation of structural BMPs. Further analysis is needed to evaluate potential public health effects from toxic air contaminant emissions that would result from the project.	See response to **Comment B4.18 and 20.8, 20.9, and 20.10** in the public comments response document.
B4.33	97	It is stated that dredging has no potential to uncover buried archaeological site and artifacts. While it is true that the harbor have been dredged, the entire harbor has not been dredged. There are many areas that have never been dredged; therefore, with the large extent of harbor that will need to be dredged to meet TMDLs, there may be	The SED will be revised to address this comment.

No.	Report Page	Comment	Response
		archaeological sites or artifacts that may be uncovered during dredging.	
B4.34	98	It is state that potential impacts of the project will not cause significant degradation to the environment, significant cumulative impacts, or substantial adverse effects on human beings with appropriate implementation of available mitigation measures. Because there is no quantitative analysis of environmental impacts, there is no evidence that mitigation measures would reduce significant impacts to less than significant. There are significant impacts to plant and animal life, air quality, climate change, and traffic that cannot be mitigated. In addition, it is stated that the project would have no impacts in terms of achieving short-term to the disadvantage of long-term environmental goals. While it will have beneficial impacts to water quality over the long term, it may result in negative long-term impacts to the environment in terms of air quality and climate change. Discussions are inadequate and unsupported by substantial evidence and need to be revised.	See response to **Comment 20.11** in the public comments response document.
B4.35	99	The determination of nominal cumulative impacts is inappropriate. The stormwater treatment systems required to comply with the TMDL water quality targets will have a cumulative impacts including air, GHG, energy consumption, goods movement, utilities, and land use impacts, which should be adequately and qualitatively analyzed.	See response to **Comment B4.18 and 20.8, 20.9, and 20.12** in the public comments response document.
B4.36	101	Cumulative discussion is inadequate and must be revised. The only projects mentioned are Machado Lake and Dominguez Channel TMDLs. There are other TMDLs in place in the vicinity, such as Los Angeles River TMDL and Colorado Lagoon TMDL, that are not discussed and analyzed. In terms of project cumulative impacts, only certain environmental impacts are addressed and not others, such as biological resources (plant and animal life), GHG, and human health risk. These areas will have significant cumulative impacts and must be properly analyzed. In addition, the areas discussed mentioned that due to mitigation measures being implemented, there would be no significant long-term cumulative impacts from the project. There is no evidence that mitigation measures would reduce significant	See response to **Comment 20.12** in the public comments response document.

No.	Report Page	Comment	Response
		impacts to less than significant, and there are significant impacts to plant and animal life, air quality, climate change, and traffic that cannot be mitigated.	
B4.37	105	This section discusses potential significant irreversible environmental impacts, but does not discuss Section 15126.2 (b) of the CEQA guidelines that requires a discussion of the significant environment impacts, which cannot be avoided if the proposed project is implemented. There are significant impacts to plant and animal life, air quality, climate change, and traffic that cannot be mitigated. Without a proper discussion on these unavoidable environmental impacts, it is difficult to determine if a statement of overriding considerations sufficiently discusses how the benefits of the project outweigh the unavoidable environmental impacts of the project.	See response to **Comment 20.11 and 20.12** in the public comments response document.
B4.38	106	The statement of overriding considerations is inaccurate and inadequate. It states that the benefits of the project outweigh the unavoidable adverse environmental effects, but it does not specify what the unavoidable adverse environmental effects are. Consequently, it also states that there is a variety of alternative implementation measures and mitigation measures that would reduce environmental impacts to less than significant. This statement is not true, because many of the mitigation measures are not feasible and there was no evidence to support the determinations that the mitigation measures would reduce impacts to less than significant. The statement of overriding considerations must be revised to provide the public and decision makers a clear picture of the unavoidable significant environmental impacts and a sufficient justification on why the benefits of the project outweigh the negative environmental impacts of the project. Until it can be clearly described, the statement of overriding considerations in inadequate and the document fails to comply with CEQA.	See response to **Comment 20.13** in the public comments response document.