



The Port of  
**LONG BEACH**  
*The Green Port*

February 22, 2011

**VIA HAND DELIVERY**

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Los Angeles Regional Quality Control Board  
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Re: Port of Long Beach Comments on the Draft Dominguez Channel and  
Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants  
Draft Total Maximum Daily Load and Related Documents

Dear Ms. Nguyen:

The Port of Long Beach (Port) appreciates the opportunity to continue to work with the Regional Water Quality Control Board (Board), the United States Environmental Protection Agency, Region 9 (EPA) and other stakeholders on the development of the draft Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants Total Maximum Daily Load (TMDL). As you know, the Port has been an active stakeholder in this process since 2006, contributing significant resources to the development of this TMDL. The Port has collected and shared data, comments, and technical expertise throughout the process and has been very grateful for the Board and EPA staffs' willingness to work cooperatively on this effort.

The Port is committed to the protection and improvement of the harbor waters, as demonstrated through our participation in this process as well as the numerous water and sediment programs the Port has implemented over the last two decades. This effort was exemplified when the Port, working with the Port of Los Angeles, the Board, EPA, and other stakeholders adopted the Water Resources Action Plan (WRAP). This voluntary, proactive action taken by both ports put in motion many of the programs, best management practices (BMPs), and measures that will be required to meet this TMDL, years prior to the TMDL being adopted.

As stated goals of the WRAP, the Port is committed to (1) supporting the attainment of full beneficial uses of harbor waters and sediments by addressing the impact of past, present, and future port operations, and (2) preventing port operations from degrading existing water and sediment quality within the port.

In order for the Port to meet these goals, however, it is critical that the TMDL be scientifically sound; technically, logistically, and economically feasible; and executed in a manner that ensures environmentally harmful and unwarranted costly actions are not required. Therefore, the Port respectfully submits the following comments on the TMDL documents, in order to ensure that the final TMDL not only provides the tools to meet all the beneficial uses of the water body, but also does not cause more environmental harm than benefit.

The Port looks forward to working with the Board to address all the concerns raised in an expeditious manner.

First, the Port is concerned that the TMDL process is being driven by the deadline imposed by the terms of the consent decree between Heal the Bay et al. and the EPA. While efforts have been underway on this TMDL for some time, and the Port has been an active participant in that process, sufficient analysis has not yet been completed to fully understand the complex system affected by this regulatory effort. It is the Port's opinion that the rush to finalize the TMDL to meet the consent decree deadline has resulted in the identification of targets that are based on unsound science, unclear expectations for achieving compliance, and an inadequate analysis of the potential effects of implementing this TMDL, and ultimately has compromised the process. Further detail on these comments is addressed in the remainder of this letter and in the detailed attachments.

**A. The TMDL Employs Measurements, Targets, And Methods That Are Overly Conservative, Not Achievable, And Potentially Harmful**

The targets in the TMDL are inappropriate, ignore the assimilative capacity of the system, and are overly conservative. The targets are irrelevant to the area, ignoring site-specific conditions. The targets also assume overly simplistic and unrealistic relationships between all contaminants and all living organisms. In addition, the targets are overly conservative and significantly underestimate the current water and sediment quality within the harbor. Through port and city programs, the water and sediment quality, including the health of the benthic community, has measurably improved in the last 10 years, as shown by the monitoring data.

Further, the Port is greatly concerned that the TMDL provides targets, load allocations (LAs) and waste load allocations (WLAs) that, if enforced, could cause greater environmental harm than benefit. If the TMDL is enforced as is, the targets will require construction of massive, unwarranted stormwater treatment systems, and the removal of sediments from every inch of the sea floor which currently supports a thriving marine

community. The Port contends that greater environmental damage will result from attempts to meet the numeric targets in the TMDL than any impacts from current conditions.

### 1. The Board Should Use SQOs And Not ERLs As The Target

The establishment of the appropriate target is, perhaps, the most critical element of a TMDL. The wrong selection method and target will dramatically alter the outcome of the TMDL. The TMDL's use of Estimate Range Lows (ERLs) as sediment targets results in an incorrect indicator of sediment health and grossly underestimates the actual sediment quality of the harbor. As stated by Long and Morgan (1990), "ERLs were not intended for use in regulatory decisions or any other similar applications." Instead, as specified by Long et al. (1995) and NOAA (2010), ERL and Effects Range Median (ERM) were designed to be informal, screening-level tools that could be used to evaluate areas that might need further investigation. (Comment Table 2, Items 25 and 26, and Attachment 3 for further discussion.)

**Sediment Quality Objectives (SQOs) and not ERLs should be utilized in the final TMDL.** The SQO standard is set forth in the *Water Quality Control Plan For Enclosed Bays and Estuaries - Part 1 Sediment Quality* (SQO Part 1) adopted by the State Water Resources Control Board (State Board) on August 25, 2009. SQOs are based on three lines of evidence, specifically: sediment chemistry, sediment toxicity, and benthic community condition. (TMDL at 45-6.) According to SQO Part 1, SQO consists of "scientifically-defensible sediment quality objectives for bays and estuaries, which can be **consistently applied statewide to assess sediment quality, regulate waste discharges that can impact sediment quality, and provide the basis for appropriate remediation activities.**" (State Board Resolution No. 2008-0070 ¶ 14.)

SQO Part 1 has been adopted pursuant to Water Code section 13393, which requires the State Board to develop SQOs for toxic pollutants for enclosed bays and estuaries. This statutory requirement was upheld by the Superior Court of Sacramento County in August 2001, which led to the creation and adoption of SQO Part 1 by the State Board. (State Board Resolution No. 2008-0070 ¶ 4.) The State Board developed SQOs pursuant to Water Code sections 13240-13247 which require, among other factors:

(1) consideration of past, present, and probable future beneficial uses of estuarine and bay waters that can be impacted by toxic pollutants in sediments; (2) environmental characteristics of waters; (3) water quality conditions that can reasonably be achieved through the control of all factors affecting sediment quality; and (4) economic considerations.

As they are based on statutory requirements that have been upheld in court, application of SQOs in this TMDL is mandatory, and adoption of another method would be in conflict with this legal requirement. Beyond this, as the aforementioned factors will indicate in comparison to ERLs, SQOs are the superior alternative in this case. SQOs were developed precisely because the legislature recognized the need to develop a better means

of regulating sediment impairment in bays and estuaries. (Water Code § 13393.5.) ERLs are preliminary screening-level values that do not consider all of the confounding and contributing factors associated with understanding the conditions at a particular site. Therefore, ERLs are not adequate to be the basis for the protection of California's bays. The SQOs, on the other hand, take into account site-specific conditions and are designed to adequately consider all the factors pertinent to the protection of the bays and estuaries.

ERLs do not provide a threshold for chemical concentrations in sediment above which the probability of impairment shows an abrupt increase. There is no basis for assuming that multiple concentrations above an ERL will increase the probability of toxicity or alterations to the benthic community. ERLs are merely the 10th percentile on an ordered list of concentrations in sediment found in scientific literature that co-occur with some biological effects. It is not a threshold below which sediment impairment is impossible and above which it is likely. Rather, ERLs are a concentration at the extreme low end of a continuum roughly relating bulk chemistry with toxicity. While correlations may be statistically significant between a chemical concentration above an ERL and a biological effect, these relationships are coincidental, not necessarily causal.

Categorizing sediments on the basis of whether their chemical concentrations include one or more ERL exceedances leads to unfounded conclusions and misperceptions of the actual probability that sediments are toxic. ERLs have insufficient predictive ability for setting remedial goals because of the significant frequency of false positives and false 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; and Vidal and Bay, 2005.) This is illustrated with data from the Los Angeles and Long Beach Harbor itself. Sediment chemistry data collected within the harbor indicate numerous ERM and ERL exceedances with little corresponding toxicity or benthic effects. (See comparison of ERL exceedance map and benthic health map in Attachment 1.) (Comment Table 2, Items 25 to 27, and Attachment 3 provide further discussion.)

In the TMDL, the Board relies on the 303(d) listing policy, which states that the ERL value is an acceptable method of determining sediment impairment. However, the State Board has made it clear that this particular aspect of the 303(d) listing policy is all but eliminated in the wake of the development of SQOs. SQO Part 1 states that "the section 303(d) listing policy was adopted prior to the development of SQOs and without the benefit of the scientific evidence supporting their development. The State Water Board recognizes the need to ensure that the listing policy and this plan are consistent." (State Board Resolution No. 2008-0070 ¶ 10.) The State Board now uses the SQOs, which provide an integrated assessment of concentration of selected chemicals, measured toxicity, and alterations in benthic organism assemblages for the evaluation of sediments quality. Therefore, the Board should abandon ERLs in favor of SQOs in the final TMDL.

An examination of the comparison between the estimated volumes in cubic yards (cy) of dredged materials in TMDL Table 7-3 indicates the extreme difference between the

amount of sediment that would have to be dredged in the harbor using the ERLs as thresholds and an SQO approach, respectively. (TMDL at 125.) Adoption of the sediment targets would, in fact, result in the dredging of an additional 25,000,000 cy of sediments that currently support healthy marine communities in the harbor, whereas SQO would require dredging certain “hot spots” that will result in an improved marine habitat. (See Attachment 9.)

Furthermore, under Water Code section 13241(c), the Regional Board is required to consider the “[w]ater quality conditions that could reasonably be achieved through the coordinated control of all factors which affect water quality in the area.” SQOs are a drastically superior way of meeting this statutory requirement. Given these facts, the use of ERLs rather than SQOs simply cannot be justified in this instance. (See Section D of this cover letter below for a discussion of the application of Water Code section 13241 to this TMDL.)

*The TMDL should be revised to reflect SQO Phase 1 as the sediment target (inclusive of chemistry, benthic community effects, and toxicity) as is required by California law. If a numeric chemical number is needed to complete elements of the TMDL (i.e., Load and Waste Load Allocations), time should be allowed in the implementation schedule to derive the values through the SQO Phase 1 approach, based upon an understanding of site-specific conditions, and not set at the ERL level.*

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: (1) were not calculated correctly, (2) include mathematical errors, (3) do not reflect current conditions of the harbor sediments as intended, and (4) artificially split listed water bodies. 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.

## **2. Methodologies Used To Create The TMDL Are Flawed And Not Based On Accurate Or Current Data**

All TMDLs must be based on sound science and must be established in accordance with state and federal regulations, which provide for informed decision making and opportunities for meaningful public input. (40 C.F.R. 130.7(c).) Numeric water quality targets for a TMDL, if deemed necessary, must be identified and an adequate basis for those targets as an interpretation of water quality standards must be specifically documented in the submittal. (40 C.F.R. 130.7(c)(1).) Furthermore, the TMDL

document must describe the relationship between numeric target(s) and identified pollutant sources, and estimate total assimilative capacity (loading capacity) of the water body for the pollutant of concern. (40 CFR 130.7(d) and 40 CFR 130.2 (i) and (f).)

*The Port is concerned that the TMDL does not accurately summarize the current condition of the harbors. The TMDL is developed from inaccurate and outdated information. (Comment Table 2, Items 1 through 24.) This is particularly true because the harbor has shown vast improvement in water quality in recent years. (Attachments 1 and 2.) Moreover, in developing the TMDL, insufficient weight was given to the most recent and reliable data. (Id.) When evaluated using the methodologies set out in SQO Part 1, the current sediment condition is healthy with some isolated areas requiring more study. (See SQO map in Attachment 1A.)*

As fully detailed in Comment Tables 1 to 3 and the attachments, every stage in the development and calculations of **this TMDL is fundamentally flawed and must be corrected, prior to issuing the final TMDL**. Specifically, Attachment 7 describes how the TMDL does not provide an adequate, comprehensive, science-based assessment of the source of contaminants to the harbor impairments, does not provide adequate linkage analyses to link pollutant sources to the harbor, and does not consider assimilative capacity. Furthermore, Attachment 7 explains how it is not possible for the methodology presented in the TMDL to differentiate which specific watershed sources are contributing to harbor sediments, and therefore, is it not possible to develop allocations. Finally, Attachment 7 demonstrates that the modeling efforts are not sufficient to establish linkages between specific sources and specific impairments. The TMDL also misinterprets the model results, leading to an arbitrary selection of allocations. This is confirmed by the resulting negative allocations for sediments in the harbor, which contradict the definition of an allocation (i.e., the portion of the pollutant an entity is allowed to discharge).

The linkage analyses were also not sufficient to support load allocations made for air deposition, which assumes that all of the contaminants from air deposition on the surface of each water body deposits in the sediment bed of the same water body. This assumption does not take into account the assimilative capacity of the water body. In addition, no site-specific linkage analysis was conducted to link fish tissue concentrations with the sediment contaminant concentrations that were used to determine the polychlorinated biphenyls (PCB) numeric target. Further, with other sources of PCBs and DDTs in the region, including the Palos Verdes Shelf, there is evidence that the fish tissue impairments could be the result of sources outside of the harbor waters.

Finally, the conclusions and data contained in the TMDL were not properly subjected to scientific peer review. For example, the sediment fish targets from San Francisco Bay were not peer reviewed for appropriateness for use in the Los Angeles and Long Beach Harbors. Additionally, the development of the linkage analyses and load allocations were not peer reviewed. Therefore, the Board failed to comply with Health and Safety Code section 57004. The fact that the Functional Equivalent Document (FED) may have been

peer reviewed does not satisfy this requirement. (FED Appendix B at B-3.) No evidence is provided in the TMDL or related documents which indicates that the Board complied with Health and Safety Code section 57004 in drafting or adopting the TMDL.<sup>1</sup> The Board should initiate a peer review process prior to final adoption of the TMDL.

### **3. Targets Regarding Fish Tissue Are Not Environmentally Sound And Require Significant Revision**

The Fish Contaminant Goals (FCGs) used in the TMDL were not intended to be used as numeric targets. (Office of Environmental Health Hazard Assessment (OEHHA), *Development of Fish Contaminant Goals and Advisory Tissue Levels for Common Contaminants in California Sport Fish: Chlordane, DDTs, Dieldrin, Methylmercury, PCBs, Selenium, and Taxaphene* (OEHHA 2008.)) In addition, the technical basis for applying these FCGs as the fish tissue numeric targets for DDTs and PCBs has not been established. Throughout the 2008 document, OEHHA indicates that FCGs were not intended to be used as 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. (OEHHA 2008 and Attachment 5A.)

The TMDL provides no evidence that OEHHA was consulted for advice or that the tissue concentrations were modified to account for site-specific conditions.

The TMDL incorrectly attempts to justify the use of the FCGs, without consultation or site-specific modifications, by stating “Fish tissue targets for DDT and PCBs are selected from ‘Fish Contaminant Goals and Advisory Tissue Levels for Common Contaminants in California Sport Fish . . . ,’ which are 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.” (TMDL, p. 51.) This statement incorrectly implies that the purpose of the 2008 FCGs is to provide other agencies with fish-tissue based criteria to use for their programs. The full statement, however, on page 1 of the OEHHA documents 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.” (Page 1 of the OEHHA 2008 documents.)

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<sup>1</sup> The requirement for scientific peer review of TMDLs is not limited to state law. *See also* 40 C.F.R. 130.7(c)(1)(ii); U.S. Environmental Protection Agency Region IX (2000) Guidance for Developing TMDLs in California, p. 15.

The full quote demonstrates that on page one, as throughout the OEHHA document, OEHHA is clear that the FCGs are provided as a starting point for further development of site-specific criteria and should not be used as an end point, as they were applied in the TMDL.

The TMDL sets generic, non site-specific sediment targets that bear no relationship to the fish tissue target in this TMDL for PCBs and DDT. The U.S. EPA *Guidance for Developing TMDLs in California* states that “The TMDL document must describe the relationship between numeric target(s) and identified pollutant sources.” (*Guidance for Developing TMDLs in California*, EPA Region 9 (Jan 7, 2000) (2000 EPA Guidance) at 4.) However, no relationship between sediment bio-accumulative—i.e., PCBs and DDTs—concentrations and the fish tissue numeric target have been demonstrated.

Instead, the sediment target described to be in association with the fish tissue target for total PCBs in the TMDL was taken from a San Francisco Bay food web bioaccumulation model, which looked at linkages between tissue concentrations in San Francisco Bay organisms and associated sediment concentrations (Gobas and Arnot 2010.) The sediment target (provided in association with the fish tissue target) for total DDT is the low sediment threshold for DDT effects on human health, based on data collected from Newport Bay Harbor. (SFEI 2007.)

Thus, the sediment targets in the TMDL were established specifically for other sites which have different assemblages of organisms, food webs, circulation patterns, sources, and sediment and water column concentrations. They also bear no relationship to the selected fish tissue targets. The total PCB fish tissue target is based on OEHHA guidance and the total PCB sediment target is taken from a San Francisco Bay bioaccumulation study. Likewise, the total DDT target is based on an OEHHA guidance fish tissue value of 0.021 mg/kg (Table 3-8), while the total DDT sediment target is based on low tissue threshold level of 0.0098 mg/kg from a study in Newport Bay. Accordingly, the required link between the sediment and fish tissue targets is wholly absent from the TMDL.

Furthermore, there is no scientific link between ERLs, which were derived based on data related to direct toxicity to benthic organisms, and fish tissue concentration. The only justification given for use of ERLs as a target for addressing fish tissue is the following: “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” (Staff Report, page 96). This justification implies an arbitrary selection of the lowest published value regardless of applicability.

Finally, the linkage analyses conducted to establish sediment targets for fish tissue 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 re-suspension/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 Comment Table 2, Items 31, 32, and 47 to 50, and Attachment 5.) Given that this TMDL does not identify the current sources of PCBs in fish tissue, further study will be required to identify the sources and establish the proper linkages, before a sediment target can be established.

For the reasons summarized above and detailed in the enclosed documents, the Port is deeply concerned that the TMDL is wrong in its assessment of the current conditions of the harbor and has improperly assigned targets, LAs, and WLAs that, if not addressed, will result in a TMDL that could potentially cause remedial actions to be taken that will cause greater environmental harm than benefit. **Therefore, the final TMDL should defer setting targets until they can be established through the SQO Phase 1 and Phase 2 (or similar) assessment process.**

#### **4. The TMDL Fails To Demonstrate Necessary Linkages**

U.S. EPA guidelines (2000) state, “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 linkage analyses should be conducted prior to setting TMDLs.

- a. The linkage between sediment numeric targets and pollutant sources needs to be demonstrated.
- b. The linkage between existing sediment bed sources and sediment bed concentrations needs to be demonstrated.
- c. The linkage between water column concentrations (e.g., California Toxic Rule [CTR] and sediment concentrations [i.e., benthic impairment]) needs to be demonstrated.
- d. The site-specific linkage between fish tissue targets and sediment numeric targets needs to be demonstrated.

**B. The TMDL Requires Modification In Terms Of Measuring And Achieving Compliance**

**1. The TMDL Should State That Sediment Targets Are Not Intended To Be Remedial Action Goals, Clean-Up Levels, Or Levels To Which Individual Dredging Projects Will Be Held**

The Port is very encouraged to see SQO Part 1 incorporated into the Draft Implementation and Sediment Monitoring Program. The Port believes that many of the concerns raised in our general and specific comments can be addressed through the establishment of a clear and comprehensive SQO-based Sediment Management Plan. However, the Port is very concerned that the TMDL does not adequately ensure that all required sediment management actions will be determined through this process and that specific clean-up actions or dredging clean-up goals will not be issued based on the sediment targets. The TMDL must clearly state that the numerical sediment targets are **not** intended to be remedial action goals, clean-up levels, or levels to which individual dredging projects will be held. Such levels should be determined through the risk-based approach identified through the SQO Part 1. Specific redline text changes that provide this clarification have been attached. (See Recommended Rewrites.)

**2. Compliance For NPDES Measured At The Point Of Discharge Is Inappropriate**

Until *appropriate* linkages between contaminants and specific water body impairments are completed, compliance for Port NPDES permits measured at the point of discharge is inappropriate. Furthermore, CTR values are designed **to establish ambient water quality criteria to be protective of aquatic ecosystems and human health**. CTRs are designed to be compared against monitoring data in the water column, not monitoring data related to samples collected at the end-of-pipe. Therefore, achieving CTRs at end-of-pipe should not be used for the Port's NPDES discharges. Further, since CTRs are related to human health and aquatic life exposures, they are not linked to protection of sediment quality or prevention of sediment impairments. As the data demonstrates, there are no water column CTR exceedances in the Port. Therefore, there is no evidence that establishes a link between achieving the TMDL water column targets for these sources and addressing the impairments.

The Port requests that the language provided in the Recommended Rewrites attachment be inserted into Section 7.5. If site-specific stressor and source identification studies determine that specific discharge points are impacting sediment quality, NPDES permits should be modified accordingly to control those particular sources for the identified stressors.

### 3. Compliance With Fish Tissue

The assessment of indirect impacts of sediment contamination via bioaccumulation is currently under development by the State Board and the Southern California Coastal Water Research Project (SCCWRP) as part of the state's Sediment Quality Plan – Part 2. 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 2 assessment tool is adopted or a similar approach is applied, 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.

For final WLAs, the SQO Part 2 assessment or similar approach will assist in the development of site-specific sediment levels necessary to achieve site-specific fish tissue targets. Following the site-specific linkage analysis, attainment of these bioaccumulative TMDLs may be achieved via two different means: (1) meet fish tissue targets for trophic level-4 (TL-4) species, or (2) demonstrate attainment through the SQO Part II evaluation or similar approach.

Therefore, interim WLAs for addressing fish tissue impairments, determined either as loads or water column concentrations, should not be established in the TMDL or used in setting permit levels until such time as the final SQO Part 2 methodology is available, and site-specific attainment conditions are established.

#### C. **The CEQA Document Does Not Adequately Analyze The Impacts And Thus Does Not Inform The Decision Makers Of The Potentially Greater Negative Impacts Of The TMDL**

The Substitute Environmental Document (SED) does not meaningfully analyze the potential impacts of the TMDL and therefore does not provide the decision makers, other regulatory agencies, and the public the required understanding of whether the environmental benefits of the proposed TMDL outweigh the significant and unavoidable environmental impacts.

In *City of Arcadia v. State Water Resources Control Board*, 135 Cal.App.4th 1392 (2006), a number of permittee cities challenged the Board's adoption, and the State Water Board's approval, of a trash TMDL concerning the Los Angeles River and its surrounding watershed. The court held, in part, that the Water Board failed to prepare an EIR. The Board's completion of a California Environmental Quality Act (CEQA) checklist in a manner supporting a negative declaration was not sufficient, particularly in light of evidence in the record concerning potential adverse environmental impacts that could arise from the TMDL (despite its water quality enhancement purposes). The court concluded that the Board had not performed the requisite analysis by checking off boxes on a CEQA checklist form and summarily concluding that there were no significant potential environmental impacts. The court found that the Board ignored impacts likely

to be experienced during the implementation of the TMDL, including soil disruption and displacement, an increase in noise levels, changes in traffic circulation, and effects on air quality. Even though these impacts would only occur temporarily and would ultimately result in environmental benefits, the court held that the TMDL was not lawfully adopted in compliance with CEQA and that a full EIR and alternatives analysis, or their functional equivalent, were necessary. Because the Board did not conduct a thorough analysis of the temporary environmental impacts that some public commenters had opined would result from the implementation of the TMDL, nor consider mitigation measures or alternative approaches, the court held that adoption of the TMDL failed to comply with CEQA.

There is evidence in the record here that the TMDL and its implementation plan may have a significant physical adverse impact on the environment, even if only temporary in duration, which requires adequate CEQA analysis by the agency.

Because the objective of the TMDL is to protect and restore fish tissue and sediment quality in Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters, the environmental analysis should take into account the environmental impacts from feasible implementation measures required within the general vicinity of the ports of Long Beach and Los Angeles to meet TMDLs. As stated on page 8 of the SED and in the California Code of Regulations (Title 23, Division 3, Chapter 27, Section 3777):

“The environmental analysis shall take into account a reasonable range of environmental, economic, and technical factors, population and geographic areas, and **specific sites**.”

If the TMDL is enforced as written, dredging or dredging then capping are the only implementation alternatives that would achieve the sediment targets in the implementation time frame; therefore, the lead agency can reasonably foresee that specific large scale dredging will be required and the SED must adequately and quantitatively analyze the environmental impacts of dredging/capping within the Los Angeles/Long Beach Harbor and San Pedro Bay to meet the TMDL.

In addition, other landside implementation methods such as infiltration systems, vegetative swales, and low-flow diversion systems are infeasible within the ports and therefore will not adequately achieve the CTR target set in the TMDL for General NPDES discharges, or the WLA for MS4s. The only available method to feasibly approach achieving compliance with water quality WLAs at the ports is treatment control BMPs. (Attachments 11B and 11C.) Therefore, the lead agency can reasonably foresee that the specific implementation measure of stormwater treatment and the SED must adequately and quantitatively analyze the impacts associated with the installation of treatment control BMPs throughout the Port complex and the watershed.

The Port is very concerned that all potential environmental impacts from the project have not been properly addressed, analyzed, and mitigated. The SED fails in many respects to

comply with the requirements of CEQA. While certified regulatory programs may use the SED, the Board is required to comply with all the substantive requirements of CEQA. This SED does not accurately identify or analyze the significant environmental impacts that would result from this project. Further, it fails to provide sufficient mitigation for impacts that it does identify, and fails to consider alternatives that would effectively protect the environment, while causing less environmental and economic costs to implement.

Given the unavoidable regional and local impacts of the proposed project, it is especially important that the SED contain the necessary analysis to enable both the decision makers and the public to understand the significant environmental repercussions of the project. Because there can be no meaningful public review of the project due to the following inadequacies, the Board should correct the deficiencies to provide a complete discussion of the environmental issues at stake.

#### **1. Inadequate Descriptions Of Structural Implementation Alternatives Result In Underestimated Environmental Impacts**

By underestimating the magnitude of the amount of sediment needed to be removed by dredging to comply with the TMDLs, and the compliance methods of achieving CTR and WLAs, the existing environmental analysis does not fulfill the Board's obligation under CEQA. The SED lacks an adequate discussion of the numerous environmental impacts associated with dredging and stormwater treatment alternatives, as well as an accurate and complete assessment of air and transportation impacts resulting from a dredging project of this size. These numerous impacts are not provided to the public for review, and do not give the public a true indication of the significant environmental impacts of the project.

The SED incorrectly describes dredging to be small in scale and extent. Based on this inaccurate statement, the environmental analysis incorrectly assumes most dredging impacts to be less than significant or no impact. According to the draft Board staff report (Table 7-3 at 125), it is estimated that 11 to 35 million cy of sediment would have to be removed within the ports of Long Beach/Los Angeles and San Pedro Bay to meet the ERL and/or SQO requirements of the TMDL. In order to comply with fish tissue targets stated in the TMDL, approximately 38 million cy of material would need to be dredged. (Attachment 9.) This is a monumental and unprecedented amount of material that would need to be dredged within a span of 15 years and would have significant adverse impacts in a number of resource areas such as air quality, plant life, animal life, climate change, traffic, etc. (Comment Table 4, Items 8 through 33 and Attachment 9D.) The environmental impacts of dredging have been grossly underestimated in each of the resource areas, and the SED needs to be revised to rectify these deficiencies.

For a proper CEQA analysis to be performed, detailed assumptions need to be discussed and analyzed such as the amount of material likely to be dredged, methods of dredging (clamshell and hydraulic), methods of disposal (truck or rail), and disposal areas (upland

and port landfill). The document only states that hydraulic dredging would be used—which is not accurate, since clamshell dredging is an equally likely method of dredging. Additionally, the option of capping is inadequately analyzed and there is no discussion or assumptions about capping in the project description to allow the public to understand what is involved with the capping option. Capping is a major undertaking and also needs to be properly analyzed for environmental impacts.

**2. The Following Analyses Are Deficient Because No Impact And Less Than Significant With Mitigation Determinations Are Not Supported By Substantial Evidence**

Further analysis needs to be performed to determine potential significant impacts and appropriate mitigation measures. The CEQA analysis inappropriately dismisses any likelihood of impacts or determines that impacts will be less than significant with mitigation. Additionally, potential mitigation measures are vague and there is no substantial quantitative evidence to support how the mitigation measures will actually ensure that significant impacts will be reduced to less than significant with mitigation. Provided below are the major analyses that are deficient, and in which further analysis needs to be performed to determine potential significant impacts and appropriate mitigation measures. (Comment Table 4, Items 8 through 33.)

**a. Air Quality and Greenhouse Gases (2.a, 2.c)**

The document incorrectly states that the project will have less than significant impacts to air quality with mitigation and that the project will result in less than significant impacts in climate change. Dredging up to 38 million cy of sediment within 15 years to meet the TMDL would cause adverse impacts in air quality in terms of the continuous, long-term duration of dredge operations, as well as truck trips to dispose of the sediment. It would take 2.6 million round trip truck trips to dispose of 38 million cy of material. (Comment Table 2, Item 94.) The estimated air emissions and greenhouse gas emissions from truck trips and from the dredge equipment need to be quantified. The identified mitigation measures for dredging are inadequate because they only target trucks and heavy construction equipment. They do not address the dredge equipment itself. One mitigation measure to address air emissions from the dredge equipment that is not discussed is electric dredging. There is no substantial evidence supporting the statement that mitigation measures will reduce these impacts to less than significant levels without a quantitative analysis.

Additionally, stormwater treatment systems capable of achieving the water quality targets and WLAs set in the TMDL will be large-scale construction projects that can result in substantial air quality impacts and greenhouse gas impacts from construction and operation. These impacts also need to be properly analyzed.

**b. Earth (1.a, 1.b, 1.c, 1.d)**

The document incorrectly states that dredging would not be to the depth or scale to cause unstable conditions or changes in geological substructures; result in disruptions or displacement of soil/sediment; impact topography or ground surface relief features; and result in the destruction, covering, or modification of unique geologic features. In order to meet the TMDL targets, dredging and sediment capping would be large in scale, would affect most of the harbor, and would result in significant changes. This section needs to 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.

Additionally, the document incorrectly states 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. Providing adequate infiltration for large volumes of stormwater would require substantial changes to the topography of the port. Therefore the level of analysis performed is insufficient and there is no substantial evidence supporting the statement that these alternatives would have no impact.

**c. Plant (4.a, 4.b, 4.c) and Animal Life (5.a, 5.b, 5.c)**

The document incorrectly states that significant impacts to plant and animal life from dredging and capping can be mitigated to less than significant. Further, the mitigation measure of limiting the extent and duration of dredging to lessen impacts to plant and animal life is infeasible. If sampling indicates that an area does not meet numerical sediment or fish tissue targets, dredging will need to be performed to remove the contaminated sediment. Dredging cannot be "sited" in another location to prevent impacts to plant and animal life. Because existing harbor conditions are healthy (Attachments 1 and 2), dredging may be more detrimental and destructive than beneficial since dredging/capping would destroy benthic habitat that is thriving and healthy. This is a significant impact. If this impact cannot be mitigated, it should be stated that this is an unavoidable significant impact.

**d. Noise (6.a)**

The document incorrectly states that increases in existing noise levels from dredging and the installation of structural BMPs will be reduced to less than significant once mitigation measures have been properly applied. There is no substantial evidence to back up 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. A quantitative analysis of noise impacts needs to be performed to support the determination that implementing proposed mitigation measures would reduce noise impacts to less than significant.

**e. Transportation/Circulation (13.a, 13.c, 13.d, 13.e)**

The document incorrectly states that dredging operations and installation of structural BMPs will not result in the generation of substantial additional long-term vehicular traffic. The determination that impacts upon existing transportation systems, circulation or movement of people and/or goods, and alterations to rail or waterborne traffic can be reduced to less than significant with mitigation is also incorrect. Disposal of dredged sediment in a Port fill site is limited, and the majority of the sediment will need to be disposed of in an upland landfill, most likely out-of-state. It is estimated that 2.6 million round trip truck trips would be needed to dispose of 38 million cy of sediment in an upland landfill. This is a substantial increase of truck trips within the vicinity of the port and the regional transportation network. 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, which could have significant impacts on the rail network.

Truck trips/rail trips resulting from dredging operations and installation of structural BMPs will not be limited and short-term. There will be substantial impacts upon the existing transportation systems and significant impacts to the circulation of people and goods. A traffic management plan is not an adequate mitigation measure to address the significant impact to transportation systems as a result of the project. Further analysis is needed and potential significant traffic impacts should be quantitatively and adequately analyzed.

**f. Human Health (17.a, 17.b)**

There is no discussion in this section of the health impacts from diesel particulates from substantial increases in truck trips or rail operations needed to dispose of dredge material, or from heavy construction equipment for dredging and installation of structural BMPs. This section needs to be revised to properly and quantitatively analyze the potential significant public health impacts from toxic air contaminant emissions that would result from the project. Increase in human health risk is a significant concern for the already impacted communities near the ports. The ports have made substantial efforts and progress in addressing this concern through implementing air quality measures and reducing human health impacts from new projects. Consistent with these efforts, the ports have committed to reduce human health risk from port operations in the local communities and throughout the local area by 85% by 2020. The increased human health risk associated with meeting the requirements of this TMDL will run counter to those efforts and result in significant impacts. All recent Port development projects, which are not this large in magnitude, have included substantial Human Health Risk Assessment evaluations to justify alternatives. This impact should be adequately analyzed.



**g. Economics**

The document fails to consider the potential significant economic impact of these requirements to the ports of Los Angeles and Long Beach or other involved stakeholders. The evaluation of economic impacts and a consideration of other alternatives that reduce the economic impact are required under CEQA.

**h. Water Quality**

The use of a small cutterhead dredge for a project of this size is infeasible. Creation of new fill sites to handle hydraulic slurry would have numerous tangential impacts, and typically require years to evaluate and permit. Impacts to water quality are not adequately described, and lack understanding of the impacts of dredging at this scale. These impacts should be adequately analyzed.

**i. Public Services**

The document does not address the stress on regional landfill capacity, or the effect of the project on the capacity of offshore disposal sites. The volumes proposed in this project would far surpass available capacity at available port fills, upland disposal sites, or offshore disposal sites.

**3. The SED Fails To Provide Adequate Findings Of Significance**

The SED states 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. Since there is no quantitative analysis of environmental impacts in the SED, 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, traffic, etc. that cannot be mitigated. Also the no impact determination, in terms of achieving short-term to the disadvantage of long-term environmental goals, is incorrect and unsupported by substantial evidence. While the project will have beneficial impacts to water quality over the short and long term, it may result in negative long-term impacts to the environment in terms of air quality and climate change. Discussions in this section are inadequate and unsupported by substantial evidence and need to be revised.

**4. The SED Fails To Provide An Adequate Cumulative Impact Analysis Of The Project**

The cumulative impact analysis is inadequate and needs to 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, Colorado Lagoon TMDL, etc. 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), GHGs, and human health risk. These areas will have significant cumulative impacts and need to be properly analyzed. Also, the areas discussed mention 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 impacts to less than significant, and there are significant impacts to plant and animal life, air quality, climate change, traffic, etc. that cannot be mitigated.

#### **5. The Statement Of Overriding Considerations Is Inadequate**

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 of the project are. Section 15126.2 (b) of the CEQA guidelines requires a discussion of the significant environmental impacts which cannot be avoided if the proposed project is implemented. There are significant impacts to plant and animal life, air quality, climate change, traffic, etc. that cannot be mitigated. Without a proper discussion on these unavoidable environmental impacts, it is difficult to determine whether a statement of overriding considerations sufficiently discusses how the benefits of the project outweigh the unavoidable environmental impacts of the project.

Consequently, the SED also states that there are a variety of alternative implementation measures and mitigation measures that would reduce environmental impacts to less than significant. This is not true because many of the mitigation measures identified are not feasible, and further, there was no evidence to support the determinations that the mitigation measures would reduce impacts to less than significant.

The statement of overriding considerations needs to 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 this can be clearly described, the statement of overriding considerations is inadequate and the document fails to comply with CEQA.

#### **6. The SED Is Inadequate As An Informative Document Under CEQA And Meaningful Public Review And Comment Could Not Be Performed**

The SED does not adequately address the environmental impacts of the Project. The SED does not meet the objectives of CEQA which are to:

- a. Disclose to the decision-making body and the public the potential environmental impacts of proposed activities.
- b. Propose feasible alternatives or mitigation measures that avoid, eliminate, or reduce project-related environmental effects.

- c. Describe the analytical process which led to the public agency's decision on the project.

The CEQA analysis does not meaningfully analyze the potential impacts of the implementation alternatives, nor does it provide any explanation of how proposed mitigation measures will lessen significant environmental impacts. It does not provide the necessary information and analysis to enable decision makers, other regulatory agencies, and the public to understand the significant environmental impacts of the project. The document deficiencies should be corrected and a revised SED should be re-circulated for public review to provide a complete discussion of the environmental issues at stake.

**D. The Board Has Failed To Adequately Consider Water Code Sections 13000 And 13241**

Water Code section 13000 mandates that the Board's regulations must be "reasonable, considering all demands being made and to be made on those waters and the total values involved, beneficial and detrimental, economic and social, tangible and intangible." Water Code section 13241 requires the Board to consider a number of factors when adopting its regulations, including economic considerations and the need for developing housing in the region.

In the Tentative Resolution to the TMDL, the Board has stated its belief that the standards set forth in section 13241 do not apply to the TMDL because the TMDL does not "establish" Water Quality Objectives (WQOs) but only "implements" those that have already existed. (Tentative Resolution at ¶¶ 5, 6.) This argument is the same one that was most recently made by the State Board in *San Joaquin River Exchange Contractors Water Authority v. State Water Resources Control Bd.*, 183 Cal.App.4th 1110, 1119-1120 (2010). In that case, however, the Court of Appeals once again failed to hold that section 13241 would not apply to a TMDL.

Though the Court of Appeals in *San Joaquin River Exchange* noted that the distinction made by the State Board did have merit, it ultimately stated that it did not want to be accused of "splitting hairs" by distinguishing between WQOs that "established" water quality objectives and TMDLs that "implemented" them. (*Id.* at 1119.) Thus, instead of deciding the issue, the court instead found that the TMDL in question did consider the economic factors in section 13241 through a detailed analysis of each of the provision's requirements, including all of the economic considerations. (*Id.* at 1119-21.) This has been the same position other California courts, including the Supreme Court, have taken when considering whether section 13241 applies to TMDLs. *City of Arcadia v. State Water Resources Control Bd.*, 135 Cal.App.4th 1392, 1415 (2006) (refusing to accept State Board's argument that section 13241 did not apply to TMDL, instead siding with State Board because TMDL did comply with section 13241's requirements); *City of Burbank v. State Water Resources Control Bd.*, 35 Cal.4th 613, 625 (2006) (holding that TMDLs complied with section 13241).

Thus, it would seem that the best course of action for the Board regarding this as-yet undecided issue would be to consider the factors in section 13241 in implementing the TMDL, as all the previous court cases that have addressed the issue have done. In considering the cost factors required by that statutory provision, the Board should recognize that the TMDL constitutes a significant financial burden for the Port. As shown by the cost estimation study, Attachments 9C and 11C, the actual cost of implementation may be significantly higher than the Board's estimates. In short, the estimates to comply with the TMDL as written in the harbor area alone are as high as \$10 billion. Furthermore, with the proposed TMDL there are broad economic, social, and environmental impacts on the community that the Board has thus far failed to consider. Prior to adopting the TMDL, the Board should conduct a full economic analysis.

#### **E. The TMDL Amounts To An Unfunded Mandate**

By imposing this new regulatory requirement, the State and Regional Boards are attempting to impose new programs and/or require a higher level of service of existing programs than are specifically mandated under the Clean Water Act or any federal regulations thereunder. The imposition of unfunded programs and mandates in the TMDL is inconsistent with the provisions of the California Constitution, specifically Article XIII B, Section 6, which requires a state agency which mandates a new program or a higher level of service to provide a "subvention" of funds to reimburse local governments for the costs of the program or increased level of service.

The TMDL does not fully consider the fiscal impact on the Port, especially considering the fiscal difficulties imposed on the Port by the current economic climate. The TMDL will require a substantial capital investment in a non-revenue-generating project at a scale that is above and beyond any previous capital investment, that individual agencies will have to fund despite the fact that the state will provide no funding mechanism nor any assistance, financial or otherwise, to the Port. According to the Regional Board's estimates, the TMDL will cost the Port and other regulated entities upwards of \$9 billion for sediment remediation in greater San Pedro Bay and \$500 million to \$1.5 billion to treat stormwater in the two ports over the next 10 years. (Attachments 9C and 11C.) Article XIII B, Section 6 of the Constitution prevents the state from shifting the cost of government from itself to local agencies without providing a "subvention of funds to reimburse that local government for the costs of the program or increased level of service . . ." State agencies are not free to shift state costs to local agencies without providing funding, even if those costs were imposed upon the state by the federal government. If the state chooses to impose costs upon a local agency as a means of implementing a federal program, then those costs should be reimbursed by the state agency. *Hayes v. Commission on State Mandates* (1992) 11 Cal.App.4th 1564, 1593-1594. If the state refuses to appropriate money to reimburse a city, the enforcement of the state mandate can potentially be enjoined by a court. *Lucia Mar Unified School District v. Honig* (1988) 44 Cal.3d 830, 833-834.

The TMDL contains new programs and mandates that go beyond the specific requirements of either the Clean Water Act or EPA's regulations implementing the Clean Water Act. This includes, but is not limited to, the development of massive public works projects such as dredging, sampling, testing, etc. If the state wishes to impose this program, it needs to provide a means to pay for its implementation.

Furthermore, the TMDL contains numerous data collection requirements. These activities go beyond the requirements of EPA's regulations implementing the Clean Water Act. Any information collection demands mandated by federal regulations must be submitted for approval to the Office of Management and Budget under the provisions of the Paperwork Reduction Act. 44 U.S.C. §§3501 *et seq.*

Implementing the programs outlined in the TMDL would require the ports to collectively hire dozens of additional employees to implement these mandates. The Port does not believe that these additional burdens were contemplated by EPA, nor are they consistent with the requirements of the federal Paperwork Reduction Act. 44 U.S.C. §3507. Accordingly, these requirements are invalid for failure to comply with the Paperwork Reduction Act, the Clean Water Act, its implementing regulations, and the California Constitution.

Finally, it is not sufficiently clear from the TMDL documents and from subsequent comments made by Regional Board staff (RWQCB meeting related to the TMDL held February 7, 2011), which entities will ultimately be responsible for the implementation of remediation activities to achieve compliance in the harbor sediments. The impairments are the result of historic inputs into the harbor sediments from activities in the harbor and from activities upstream, throughout the watershed, that have resulted in contaminants being transported to the harbor and deposited in the sediments. Therefore, the ports are not solely responsible for the impairments and therefore should not be held solely responsible for remediating the sediments to address those impairments. The TMDL should clearly identify that all parties that have contributed to historical inputs into the watershed are responsible for their fair share of the compliance actions.

\* \* \*

The Port respectfully requests that the Board postpone incorporating the TMDL into the Basin Plan until such time as the Board and affected stakeholders can conduct a thorough scientific study on the effectiveness of the Board's plan with respect to toxic pollutants in the Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters. Requiring stakeholders to go forward with this plan without conducting further study would be an inefficient and unproductive use of public resources.

The Port is committed to dedicating the resources required to properly address and mitigate legitimate issues associated with toxic pollutants in the waters in question. Prior to dedicating the significant amount of resources required for this undertaking, however, the Port asks that the Board take the time to ensure that the prescribed cure is

Ms. Thanhloan Nguyen

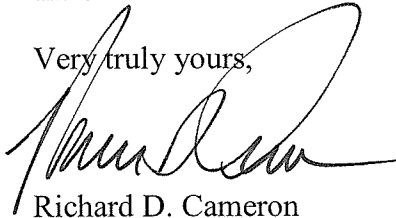
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scientifically proven to achieve results. The Port does not believe that the TMDL as it is presently written is sufficient to adequately address any alleged problems associated with toxic pollutants. In contrast, implementing the TMDL as written may result in greater environmental harm than exists under current conditions.

We look forward to your response to these comments, as well as comments submitted by the other stakeholders.

Very truly yours,



Richard D. Cameron  
Director of Environmental Planning

Enclosures

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