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February 22, 2011

IN REPLY PLEASE

REFER TO FILE: WM-9

Mr. Samuel Unger, P.E.
Executive Officer
California Regional Water Quality
Control Board – Los Angeles Region
320 West 4th Street, Suite 200
Los Angeles, CA 90013-2343

Attention Ms. Thanhloan Nyugen

Dear Mr. Unger:

**COMMENT LETTER – DOMINGUEZ CHANNEL AND
GREATER LOS ANGELES AND LONG BEACH HARBOR WATERS
TOXIC POLLUTANTS TOTAL MAXIMUM DAILY LOAD**

Thank you for the opportunity to comment on the proposed Amendment to the Water Quality Control Plan for the Los Angeles Region to incorporate the Dominguez Channel and the Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants Total Maximum Daily Load. The enclosed comments are being submitted on behalf of the County of Los Angeles.

We look forward to your consideration of these comments. If you have any questions, please contact me at (626) 458-4300 or ghildeb@dpw.lacounty.gov or your staff may contact Ms. Rossana D'Antonio at (626) 458-4325 or rdanton@dpw.lacounty.gov.

Very truly yours,

GAIL FARBER
Director of Public Works

GARY HILDEBRAND
Assistant Deputy Director
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Enc.

cc: Chief Executive Office (Burt Kumagawa, Dorothea Park)

**COMMENTS OF THE COUNTY OF LOS ANGELES ON THE PROPOSED TOTAL
MAXIMUM DAILY LOAD FOR TOXIC POLLUTANTS IN DOMINGUEZ CHANNEL
AND GREATER LOS ANGELES AND LONG BEACH HARBOR WATERS**

1. The County of Los Angeles Cannot be Named a Responsible Party for the Dominguez Channel and the Greater Los Angeles and Long Beach Harbors as such Action Would Conflict with the Amended Consent Decree Entered by the Federal District Court

The designation of responsible parties under the proposed Total Maximum Daily Load (TMDL) for Toxic Pollutants in Dominguez Channel and Greater Los Angeles and Long Beach Harbor conflicts with an Amended Consent Decree entered by the federal district court in Los Angeles. Pursuant to the terms of the Amended Consent Decree, the proposed TMDL should be modified to delete the County of Los Angeles (County) as a responsible party for the Dominguez Channel, including the Torrance Lateral and Dominguez Channel Estuary, and the Los Angeles and Long Beach Harbors.

In 1999 the United States and the State of California settled a lawsuit with local governmental entities over the environmental condition of the Dominguez Channel and the Los Angeles and Long Beach Harbors. The lawsuit was brought by the United States on behalf of the United States Environmental Protection Agency, the Department of the Interior and the National Oceanic and Atmospheric Agency, and by the State of California on behalf of the State Lands Commission, the Department of Fish and Game, the Department of Parks and Recreation, the Department of Toxic Substances Control and the Los Angeles Regional Water Quality Control Board (Regional Board).

The settlement is set forth in an Amended Consent Decree entered by the Federal district court on August 24, 1999. The County was one of the parties to this settlement. The Regional Board also was a party, with the Executive Officer signing the Amended Consent Decree on behalf of the Regional Board.

The Amended Consent Decree resolved all liability of the settling local governmental entities for all natural resource damages with respect to the "Montrose NRD Area" and all response costs incurred in connection with the "Montrose NPL Site" (Amended Consent Decree, page 19). The Montrose NRD Area was defined to include the Los Angeles and Long Beach Harbors (Amended Consent Decree, ¶ 6.J). The Montrose NPL Site was defined to include the Torrance Lateral, the Dominguez Channel from Laguna Dominguez to the Consolidated Slip, and that portion of the Los Angeles Harbor known as the Consolidated Slip (Amended Consent Decree, ¶ 6.I.).

Under the Amended Consent Decree, the Regional Board explicitly agreed that, except for certain circumstances not applicable here, the Regional Board would not take any civil or administrative action against any of the settling local governmental entities, including the County, for any civil or administrative liability for natural resource damages (Amended Consent Decree, ¶ 11). Natural resource damages were defined to include loss of use, restoration costs and resource replacement costs, among other costs (Amended Consent Decree, ¶ 6.L).

The Regional Board also agreed that, except for certain circumstances not applicable here, the Regional Board would not take any civil or administrative action against any of the settling local governmental entities, including the County, to compel response activities or to recover response costs in connection with the Montrose NPL site (Amended Consent Decree, ¶ 17). Response costs were defined to include all costs of response as provided in 42 U.S.C § 9607(a)(1-4)(A) and as defined by 42 U.S.C § 9601(25). (Amended Consent Decree, ¶ 6.M). These response activities and costs included activities to remove hazardous substances from the environment, to monitor, assess, and evaluate the release or threat of release of hazardous substances (see 42 U.S.C. §9601(23)), and actions consistent with a permanent remedy such as diversions, dredging and excavations (see 42 U.S.C. §9601(24)).

The proposed TMDL's assignment of responsibility to the County for the Dominguez Channel and the Los Angeles and Long Beach Harbors violates this Amended Consent Decree. The obligations imposed by the proposed TMDL, such as preparing monitoring plans and implementation plans, monitoring, dredging of sediments and diverting stormwater, clearly fall within the definition of natural resource damages and response activities under the Amended Consent Decree. (See Amended Consent Decree, ¶¶ 6.L and M.) By naming the County as a responsible party for the Dominguez Channel and the Greater Los Angeles and Long Beach Harbors, the Regional Board is requiring the County to take these or related actions. Under the Amended Consent Decree, however, the Regional Board has explicitly agreed that it will not require the County to take these and other actions (Amended Consent Decree, ¶¶ 11 and 17).

Accordingly, the proposed TMDL must be modified to delete the County as a responsible party for the Dominguez Channel, including the Torrance Lateral and Dominguez Channel Estuary, and the Los Angeles and Long Beach Harbors. Under the Amended Consent Decree, the Regional Board has agreed that it will not compel response activities by or seek natural resource damage or response costs from the County. Naming the County as a responsible party is barred by this Decree.

2. The Regional Board has Improperly Included Site Remediation and Monitoring in the Proposed TMDL

Phase II of the proposed TMDL's Implementation Plan for the Dominguez Channel and the Greater Los Angeles and Long Beach Harbors calls for the implementation of Best Management Practices (BMP) and site remedial actions. According to the proposed TMDL, "Phase II should include implementation of site-specific clean up actions. . . ." The proposed TMDL further provides that, should there be a Phase III, this phase should include implementation of "secondary and additional remediation actions as necessary . . ." (Draft BPA, Attachment A, Paged 27, 28, 29 and 30)

There is no authority, however, for the Regional Board to order site-specific remedial actions, including sediment monitoring, management or removal plans, as part of the proposed TMDL. A TMDL is meant to address the daily amount of a pollutant in a discharge. A TMDL does not address the cleanup of legacy pollutants that have been previously discharged.

A TMDL sets forth the amount of pollutants which can be discharged to a water body on a daily basis without causing an exceedance of an applicable water quality standard. As set forth in 33 U.S.C. § 1313(d)(1)(C) "such load shall be established at a level necessary to implement the applicable water quality standards with seasonal variations and a margin of safety" 40 C.F.R. § 130.2(i) defines a TMDL as "the sum of the individual WLAs for point sources and LAs for nonpoint sources and natural background." A "WLA" or "waste load allocation" is defined as "the portion of a receiving water's loading capacity that is allocated to one of its existing or future point sources of pollution." 40 C.F.R. § 130.2(h). A "LA" or "load allocation" is defined as "the portion of a receiving water's loading capacity that is attributed either to one of its existing or future non-point sources of pollution or to natural background sources." 40 C.F.R. § 130.2(g). The term "loading capacity" is defined as "the greatest amount of loading that a water can receive without violating water quality standards." 40 C.F.R. § 130.2(f).

Thus, a TMDL sets forth the amount of pollutants from existing and future point sources and non-point sources that a water body can receive without violating water quality standards. Nothing in the TMDL addresses legacy pollutants that have been previously discharged. No authority is given to the Regional Board to address historically discharged pollutants.

This is not to say that the Regional Board might not have other authority to address contaminated sediments in the Dominguez Channel and/or the harbors. Both Federal and State law may provide tools to the Regional Board to address the contaminated sediments. These may include provisions such as cleanup and abatement orders under the Porter-Cologne Act, Water Code § 13304, or the right to recover response costs under Federal Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42. U.S.C. § 9601 et seq. To invoke

those remedies, the Regional Board must comply with the provisions of those statutes. The Regional Board has no authority, however, under a TMDL to require remedial actions or monitoring at sites with respect to pollutants that have already been discharged.

3. Toxicity Waste Load Allocation for the Dominguez Channel Freshwater Should be Removed from the Proposed TMDL

The draft Staff Report states that “water column toxicity was repeatedly observed at S28 monitoring station from 2002 to 2010” (Draft Staff Report, Page 27). This statement is not accurate based on our review of available data. The table below presents the toxicity data collected at S28 and submitted annually to the Regional Board by Los Angeles County Department of Public Works (LACDPW) over the last 8 years. The same data was provided to the United States Environmental Protection Agency (USEPA) during the development of this proposed TMDL. The data shows *Ceriodaphnia dubia* tests with inhibited survival and reproductive success during wet weather events in 2002 and 2005, based on a 1 toxic unit (TU) target. There was no *C. dubia* toxicity detected during dry weather between 2002 and 2010.

It appears that sea urchin test results having greater than 1 TU were inappropriately counted as toxicity observations in Dominguez Channel freshwater. Use of sea urchin, a marine species, to assess freshwater toxicity is inappropriate. The brining of freshwater samples by mixing with sea salt or saltwater significantly changes the chemical composition of the sample. Further, currently there are discrepancies in the laboratory methods being used for determining freshwater toxicity using sea urchin. While some laboratories use hypersaline brine to raise the salinity of freshwater sample, others prefer to use sea salt. The use of hypersaline brine leads to a detection limit higher than 1 TU, making it difficult to assess toxicity based on 1 TU. Adding sea salt is potentially toxic to embryo in fertilization tests, making it very difficult to determine the true cause of toxicity. While the 2008-09 toxicity testing for sea urchin at S28 was conducted using hypersaline brine, sea salt was used in other years. Due to these inconsistencies and the lack of scientific basis for using a marine species as indicator for freshwater toxicity, the sea urchin toxicity data cannot be used in assessing water column toxicity in Dominguez Channel.

It is also worth noting that there were only two toxic results between 2002 and 2005 based on *C. dubia* tests, and no toxicity was detected after October 2005 which coincides with USEPA’s ban on urban use of diazinon. Further, chronic toxicity tests are not an appropriate predictor of wet weather toxicity because the exposure time of seven days for chronic tests is significantly longer than the duration of most wet weather events in Southern California which often last for less than a day.

Because of the reasons discussed above, the proposed TMDL should be revised to remove the WLA for toxicity for Dominguez Channel freshwater, specifically on pages 3, 9, and 11 of the Draft Basin Plan Amendment (BPA).

Summary of Toxicity Data for Dominguez Channel (S28) Monitoring Station (Results are in toxic unit)						
Year	Toxicity Indicator		Dry Weather		Wet Weather	
			Event 1	Event 2	Event 1	Event 2
2002-03	Ceriodaphnia	Survival	<1	<1	1.33	<1
		Reproduction	<1	<1	1.33	<1
	Sea Urchin	fertilization	NA	<1	<1	<1
2003-04	Ceriodaphnia	Survival	<1	<1	<1	<1
		Reproduction	<1	<1	<1	<1
	Sea Urchin	fertilization	<1	1.17	<1	1.47
2005-06	Ceriodaphnia	Survival	<1	<1	1.23	<1
		Reproduction	<1	<1	1.1	<1
	Sea Urchin	fertilization	<1	<1	1.3	<1
2006-07	Ceriodaphnia	Survival	<1	<1	<1	<1
		Reproduction	<1	<1	<1	<1
	Sea Urchin	fertilization	<1	<1	1.36	1.6
2007-08	Ceriodaphnia	Survival	<1	<1	<1	<1
		Reproduction	<1	<1	<1	<1
	Sea Urchin	fertilization	<1	<1	1.25	<1
2008-09	Ceriodaphnia	Survival	<1	<1	<1	<1
		Reproduction	<1	<1	<1	<1
	Sea Urchin	fertilization	<2	<1.81	<1	<2
2009-10	Ceriodaphnia	Survival	<1	<1	<1	<1
		Reproduction	<1	<1	<1	<1
	Sea Urchin	fertilization	<1	<1	<1	<1

4. The Determination of Total Recoverable Metals Should Use Consistent Values for Hardness and Conversion Factor

Freshwater targets for total recoverable metals as presented on page 3 of the Draft BPA were calculated using California Toxics Rule (CTR) acute dissolved criteria based on a median hardness and 90 percentile conversion factor. Using the median hardness and the 90 percentile conversion factor is arbitrary and not consistent. A more scientifically robust approach would be to use either the median or the 90th percentile values for both parameters.

We recalculated the dissolved and total recoverable metals targets based on two consistent scenarios: (i) using median hardness and median conversion factor and (ii) using 90 percentile hardness and 90 percentile conversion factor. We used the same data (2002-10 wet-weather data at S28) as the proposed TMDL with the addition of 5 data points from the 2007-08 monitoring year which was inexplicably and erroneously omitted in the proposed TMDL, increasing the total number of data points to 35. This omission renders staff's conclusion invalid. The table below presents the total recoverable metals targets under the two scenarios. Under both scenarios the values are significantly higher than what was presented in the proposed TMDL. Though either of the scenarios can reasonably be used, we recommend using the median values of the hardness and conversion factors. Therefore, we strongly urge that the metals targets and the corresponding allocations in the proposed TMDL be revised to reflect what is presented under Scenario 1 in the table below.

Freshwater Metals Targets for Dominguez Channel (µg/L)								
Metal	Scenario 1: Using Median Hardness and Conversion Factor				Scenario 2: Using 90th Percentile Hardness and Conversion Factor			
	Hardness (mg/L)	Dissolved Criteria	Conversion Factor	Total Metals	Hardness (mg/L)	Dissolved Criteria	Conversion Factor	Total Metals
Copper	49.6	6.94	0.298	23.3	133	17.56	0.722	24.3
Lead	49.6	29.87	0.085	351.9	133	87.98	0.684	128.6
Zinc	49.6	64.69	0.397	163.1	133	149.2	0.935	159.6

5. The Dominguez Channel Freshwater Metals Interim Allocations are Incorrect and Need To Be Revised

As stated on page 10 of the Draft BPA and page 86 of the Draft Staff Report, the metals interim allocations for the Dominguez Channel freshwater are set to “the 95 percentile of total metals data collected from January 2006 to January 2010 with the exclusion of two outlier data points that occurred in December 2006 and April 2007.” We have two main concerns regarding the approach used to determine the proposed TMDL’s interim allocation. First, the two data points measured in December 2006 and April 2007 are inappropriately excluded from the calculations. It is not appropriate to exclude data simply because they are relatively high in magnitude; rather, it is potentially a trigger for further assessment. In our assessment we have found no evidence to indicate that these two data points are in error; instead, they appear to reflect the highly variable and unpredictable nature of stormwater quality and represent actual water quality condition at the time of sample collection

Second, the calculation inexplicably and erroneously omits data from the 2007-08 monitoring year. This omission renders staff’s conclusions invalid. The error in calculating the interim allocations is evident from the fact that the interim allocation for lead (35.8 µg/L) is less than its final allocation (39.3 µg/L).

We re-calculated the 95 percentile interim allocations for total metals using all data collected from 2006 to 2010 at station S28. The table below presents the re-calculated interim allocations and the current interim allocation in the proposed TMDL. The re-calculated values are significantly different from the interim allocations given in the proposed TMDL. We urge that the proposed TMDL's interim allocations for Dominguez channel freshwater be revised to reflect the re-calculated values as shown below.

Interim Allocations for Dominguez Channel (µg/L)		
Metal	Re-calculated Interim Allocation	Current Interim Allocation in the Proposed TMDL
Copper	263	93.1
Lead	153	35.8
Zinc	1300	382.5

However, should the so-called outliers remain excluded in the interim targets calculation, the proposed TMDL should be revised for consistency and allow the same approach to be used during compliance determination, i.e., discharger's compliance with the interim allocations should be assessed by comparing the 95 percentile values of data collected at the discharge site (after omitting the outliers) with the proposed TMDL interim allocations.

6. Total Metals Waste Load Allocations and Interim Allocations for Torrance Lateral Should Be Re-calculated Using Site-Specific Data

As presented on pages 11-12 of the Draft BPA, the metals allocations for the Torrance Lateral are set to target values calculated based on hardness and conversion factors obtained from Station S28. Given that Torrance Lateral has its own water quality data, the extrapolation of targets at S28 to Torrance Lateral is inappropriate. Although the proposed TMDL recognizes the 10 wet-weather data points collected at the tributary station TS19 at Torrance Lateral, this data was not used on grounds that they were insufficient. We disagree with this assertion because assessments of numerous 303(d) listings and derivation of targets and allocations for several previous TMDLs in the Los Angeles region have relied on even smaller data sets. We believe 10 data points are sufficient to derive metals targets and allocations for the Torrance Lateral.

We calculated the metals targets for Torrance Lateral based on the available data at TS19. The resulting total metals targets based on various combinations of site hardness and conversion factors are presented in the table below. We urge that the total metals allocations for Torrance Lateral be revised to reflect site-specific conditions using median hardness and conversion factor values as shown in

Scenario 1. At a minimum, Scenario 3 should apply as it uses the same median hardness/90 percentile conversion factor approach in the proposed TMDL.

Freshwater Metals Targets for Torrance Lateral (µg/L)								
Metal	Scenario 1: Using Median Hardness and Conversion Factor				Scenario 2: Using 90 percentile Hardness and Conversion Factor			
	Hardness (mg/L)	Dissolved Criteria	Conversion Factor	Total Metals	Hardness (mg/L)	Dissolved Criteria	Conversion Factor	Total Metals
Copper	65	8.95	0.246	36.4	102	13.7	0.444	30.8
Lead		40.3	0.073	552.3		66.0	0.209	315.4
Zinc		81.4	0.361	225.1		119.2	0.909	131.1
	Scenario 3: Using Median Hardness and 90 Percentile Conversion Factor					Current Allocation in the Proposed TMDL		
	Hardness (mg/L)	Dissolved Criteria	Conversion Factor	Total Metals	Total Metals			
Copper	65	8.95	0.444	20.2	9.2			
Lead		40.3	0.209	192.5	39.3			
Zinc		81.4	0.909	89.5	67.6			

Similarly, the interim allocations for Torrance Lateral were re-calculated using site-specific data collected at TS19 and the 95 percentile approach. The re-calculated interim allocations as shown below should apply for Torrance Lateral.

Interim Allocations for Torrance Lateral (µg/L)		
Metal	Re-calculated Interim Allocation	Current Interim Allocation in the Proposed TMDL
Copper	156.7	93.1
Lead	68.6	35.8
Zinc	1034	382.5

7. The Use of Biota-Sediment Accumulation Factor Approach for Setting Sediment Targets is Not Appropriate

Sediment targets associated with fish tissue (Draft BPA, Page 5) appear to consist of criteria derived based on biota-sediment accumulation factor (BSAF) studies conducted in other parts of the country. Because BSAF-derived criteria are location specific, it is not appropriate to apply criteria derived for other areas to the proposed TMDL. Further, the BSAF approach disregards the complex bioaccumulation and biomagnification mechanisms of organic chemicals in the aquatic food chain.

In addition, the proposed TMDL uses the minimum of Effect Range Low (ERL) levels of the marine sediment quality guidelines and the BSAF-derived targets to calculate the WLAs and LAs. This manner of establishing targets and WLAs is arbitrary and leads to unreasonably strict standards.

Currently, the State Water Resources Control Board (State Water Board) is developing fish tissue associated Sediment Quality Objectives (SQO), referred to as SQO-Part 2. This useful tool will be available in the near future and can be used to refine the fish associated sediment targets during the reopener. In the meantime, ERL values should be used for all chemicals of concern to calculate sediment allocations. Accordingly, the sediment WLAs and LAs for total Polychlorinated Biphenyls (PCBs) should be recalculated using the ERL value of 22.7 µg/kg, in place of the BSAF-based value of 3.6 µg/kg.

8. Sediment Quality Objective Part 2 Should Be Considered as One Way of Compliance Demonstration for Bioaccumulative Compounds

The State Water Board is currently developing the SQO Part 2 which addresses the risk posed to fish and human health by pollutants in sediments in enclosed bays and estuaries. Similar to the option of using SQO Part 1 as a means for compliance assessment for sediment-associated risks to aquatic organisms (as indicated on page 16 of the BPA), SQO Part 2 should be used as a means of compliance determination for bioaccumulatives. Although SQO Part 2 has not been completed, the proposed TMDL should recognize this approach and allow for its use upon adoption by the State Water Board. We recommend that an item (c) be added on page 19 for SQO Part 2 as option under the means for compliance demonstration for bioaccumulatives.

9. Load Allocations for Air Deposition Should Not Be Set to Existing Condition

The proposed TMDL sets direct air deposition allocations to the existing load estimates for copper, zinc, and Polycyclic Aromatic Hydrocarbons (PAHs). Only lead allocation is assigned based on air quality criteria. Although no air quality standard for other metals and PAHs currently exist, reductions of air-associated loading contributions for these pollutants should be considered in the proposed TMDL allocations.

Many studies have shown that air deposition is a major source of water pollution, and allowing such pollutant inputs to continue at its current level places an unreasonable burden on stormwater discharges. The USEPA and California EPA, having authority over air pollution control, should implement regulatory mechanisms to reduce or prevent the emission of pollutants of concern into the air. Studies conducted by the Southern California Coastal Water Research Project (SCCWRP) and the University of California, Los Angeles (UCLA) have found that air deposition accounts for 50 to 100 percent of trace metals loading in Los Angeles region. In the

absence of control mechanisms on major air deposition sources, it could be impossible to attain the allocations of the proposed TMDL. We urge the USEPA to re-evaluate the current LA for air deposition and commit to working with appropriate parties to reduce trace metals loading from air deposition.

10. Waste Load Allocations and Load Allocations for Stormwater Discharges Should Be Expressed as Mass Per Year

Where data are available, WLAs and LAs should be expressed as mass per year. Expressing loading in mass as opposed to concentration more appropriately reflects actual environmental impact. As currently presented in the proposed TMDL, allocations are expressed as mass per year only for the final allocations of metals (copper, lead, and zinc), PAHs, dichlorodiphenyltrichloroethane (DDT), and PCBs in sediment for the Estuaries and Harbors. Other allocations, for which sufficient data is available, should be revised and expressed in a similar manner. We request that the following allocations be modified:

- a) Dominguez Channel freshwater interim allocations for metals. (Draft BPA, Page 10)
- b) Estuaries and Harbors sediment interim allocations for metals, DDT, PAHs, and PCBs. (Draft BPA, Page 10)
- c) Dominguez Channel freshwater final allocations for metals. (Draft BPA, Page 11). Freshwater metals final allocations should be expressed in kg/year, as opposed to g/day.
- d) Consolidated Slip and Fish Harbor sediment final allocations for cadmium, chromium, and mercury. (Draft BPA, Page 15)
- e) Estuaries and Harbors sediment final allocations for chlordane, dieldrin, and toxaphene. (Draft BPA, Page 19)

11. The United States Environmental Protection Agency Should Be Named as a Responsible Party

As indicated in the proposed TMDL, two USEPA-managed Superfund sites are located within the drainage area of the proposed TMDL. However, USEPA is neither listed as a responsible party nor required to monitor or implement remedial actions. The proposed TMDL does not assign any responsibility to the USEPA other than stating that "the TMDL for DDT should be taken into account in the course of the remedial decision-making process" (Draft BPA, Page 27). Because these Superfund sites potentially contribute to receiving water impairments, the USEPA should be named as a responsible party on page 31-32 of the Draft BPA. Further, the USEPA should be assigned WLAs and required to conduct monitoring and take remedial actions during Phase I implementation.

12. Dry-Weather Monitoring for Dominguez Channel and Torrance Lateral Freshwaters Should Not Be Required

The proposed TMDL requires a dry-weather monitoring event in addition to two wet weather monitoring events every year for Dominguez Channel and Torrance Lateral. Requiring dry-weather monitoring for these water bodies is inappropriate because the proposed TMDL clearly indicates that they are impaired only during wet weather. Available data does not indicate impairment during dry weather. Consequently any monitoring and compliance requirements should be limited to wet weather. The proposed TMDL should be revised to remove dry weather-monitoring for Dominguez Channel and Torrance Lateral freshwaters.

13. Final Water Column WLA for Total PAHs for the Estuaries and Harbors Should Exclude Pyrene

Due to the absence of CTR human health criteria for total PAHs, the proposed TMDL assigns the lowest CTR human health criteria of 0.049 µg/L for individual PAHs to the sum of six PAH compounds of concern [benzo(a)anthracene, benzo(a)pyrene, chrysene, phenanthrene, pyrene, and 2-methylnaphthalene) (Draft BPA, Page 12). However, the CTR human health criteria for pyrene (one of the six PAH compounds of concern) is 11,000 µg/L, which is several orders of magnitude higher than the criteria for other PAHs. In other words, a pyrene concentration of anywhere between 0.049 and 11,000 µg/L would exceed the proposed total PAH criteria while meeting the criteria for pyrene. We urge that pyrene be removed from the sum of PAHs and, if necessary, be assigned its own CTR criteria apart from other PAH compounds.

14. Urban Runoff and Stormwater Should Not Be Considered as a Source of Legacy Pollutants

The proposed TMDL states that the legacy pollutants, such as PCBs, DDT, dieldrin and chlordane, are being conveyed by urban and stormwater runoff into the receiving waters. This statement is not supported by evidence. Available data for both dry and wet weather at the Dominguez Channel Mass Emission Station, S28, and its six tributary stations have not detected those legacy pollutants. The chemical products that were sources of these pollutants were banned from the market decades ago and, today, urban and stormwater runoff is not the source for these pollutants. The detection of these pollutants only in bottom sediments of relatively stagnant water bodies (lakes, estuaries, and bays) indicates that these pollutants were accumulated in those water bodies during the times of their legal use before the 1980s. In the absence of supporting evidence showing that legacy pollutants are still being transported by the municipal separate storm sewer system (MS4), a reference to urban runoff and stormwater as sources of legacy pollutants is inappropriate and should be removed.

15. Monitoring Responsibilities of the Los Angeles River and the San Gabriel River Metals TMDLs Responsible Agencies Should Be Clarified

The proposed TMDL requires the responsible agencies identified in the previously promulgated metals TMDLs for Los Angeles River (LAR) and San Gabriel River (SGR) to conduct water and sediment monitoring (Draft BPA, Page 25). It should be noted that the LAR and SGR estuaries were not part of the respective effective metals TMDLs. The most downstream parts of the LAR and SGR covered under the respective metals TMDLs are fully channelized and contain no bed sediment, making sediment monitoring in these channels impossible. We request that the sediment monitoring locations and requirements for the LAR and SGR agencies under the proposed TMDL be clarified.

16. Los Cerritos Channel Watershed Should Not Be Considered as Part of the Nearshore Subwatersheds

As shown in Figure 4-1 of the Draft Staff Report and Figure III-2 of Appendix III, it appears that the Los Cerritos Channel Watershed is incorrectly considered as part of the Nearshore subwatershed. The Los Cerritos Channel is a receiving water body, which has its own 303(d) listings and TMDLs and should be excluded from the proposed TMDL's nearshore subwatershed boundary. Similar to LAR and SGR, this water body already has its own metals TMDL (effective March 2010) and the associated responsible agencies were assigned WLAs and LAs under the existing TMDL. Therefore, the nearshore subwatershed drainage area for the San Pedro Bay should be revised to exclude the area covered under the Los Cerritos Channel metals TMDL, and the associated allocations for San Pedro Bay should be recalculated and assigned to appropriate responsible agencies accordingly.

17. Deadline for Achieving the Interim Allocations Must Be Extended

The proposed TMDL currently requires compliance with the interim allocations at the effective date (Draft BPA, Page 33 Table 7-40.2). This is inappropriate for several reasons. First, the interim allocations are set to the 95 percentile of the current conditions, indicating that the interim allocations are currently being exceeded 5 percent of the time. In other words, the interim allocations are not representative of the current conditions and cannot be met immediately without implementation of control measures. Second, interim allocations are calculated based on limited data and therefore contain significant uncertainty. We request that the deadline to attain the interim allocations be extended by four years. This would be consistent with the Santa Clara River Bacteria TMDL which allows four years to attain the 95 percentile interim allocations.

18. Deadline to Submit the Monitoring Plan Should Be Extended

The proposed TMDL, addressing numerous pollutants, water body types, and responsible agencies, is much more complex than TMDLs previously developed for the Los Angeles Region. Yet, the proposed TMDL requires the submission of a monitoring plan within six months of the effective date. This is not a reasonable timeframe based on our experience in designing monitoring programs for previous TMDLs. Developing a monitoring plan of this complexity would require hiring outside experts as well as coordinating with multiple agencies throughout several watersheds. By comparison, the development of the monitoring plan for the Ballona Creek TMDL took over a year. Considering the complexity associated with the proposed TMDL, we request that the deadline for submitting the monitoring plan (Task 2 in Table 7-40.2) be extended to 18 months from the effective date.

19. Deadline to Submit the First Annual Implementation Report Should Be Extended

The deadline for the first annual implementation progress report is set at six months from the submittal of the Implementation Plan and Sediment Management Plan. This timeframe is too short to report meaningful progress on implementation. We request that the deadline for the first progress report be set to at least one year from the submission of the Implementation Plan.

20. The Schedule for the Proposed Implementation Phases Should Be Modified

The proposed TMDL requires the completion of Phase I, Phase II, and Phase III implementation in 5, 15, and 20 years, respectively, from the effective date. With the submission of the first Implementation Plan set to two years, the responsible agencies are allowed only three years during Phase I to complete the implementation of structural and non-structural BMPs. Based on our previous BMP implementation experience, the proposed timeline is unrealistic. Project planning, design, land acquisition, budgeting, environmental permitting, and construction of water-quality improvement projects could minimally take from 8 to 10 years. Further, the final compliance date for the proposed TMDL should take into account the schedules of upstream watershed TMDLs, such as LAR and SGR metals TMDLs. Therefore, the implementation schedule for Phase I should be set at 10 years from the effective date, and that of Phase II and Phase III should be set at 20 and 25 years, respectively.

21. The Proposed TMDL Significantly Underestimates the Cost to Comply

The proposed TMDL estimates the cost to treat stormwater discharge from the Dominguez Channel Watershed to range from about \$60 million to \$250 million over 20 years depending on the type of BMP used. However, our preliminary analysis indicates that this may significantly underestimate the actual implementation cost. Our cost estimate for the same watershed using best available watershed data (excluding that associated with sediment management), ranges from

\$500 million to \$1.5 billion depending on BMP implementation options. The proposed TMDL should include any limiting assumptions employed in its cost analysis that could have contributed to the significant underestimation such as the use of design storm (i.e., 85 percentile storm event).

Additionally, the proposed TMDL does not consider the costs associated with sediment management for the estuaries of Dominguez Channel and LAR, although the implementation section of the proposed TMDL requires the development of a Sediment Management Plan to address contaminated sediments in the estuaries, with such remedial actions to be considered during Phase II implementation. We urge that the proposed TMDL's economic analysis be revised to reflect a more realistic cost to comply including the cost to undertake necessary remedial actions with respect to sediment.

22. Miscellaneous Comments:

- a) The County of Los Angeles and incorporated cities MS4 permit is erroneously referred to as "LACDPW NPDES MS4 permit" in several locations in the staff report. This should be corrected.
- b) Jurisdictional area maps for the various water bodies should be incorporated into the Staff Report.
- c) The Zinc freshwater chronic criterion is higher than the acute and appears to be erroneous. Please check for accuracy (Draft BPA, Page 3).
- d) Water column and associated pollutant impairments are missing from Tables 2-5, 2-6, and 2-7 of the Draft Staff Report. Those tables need to be revised to reflect the correct pollutant-water body matrix combinations.
- e) Sediment WLAs are not applicable to Torrance Lateral because it is a concrete-lined channel and has no contaminated sediments (Draft BPA, Page 12).
- f) The majority of dry weather loading from the SGR is much higher than that of LAR (Draft BPA, Page 7), despite less drainage area and development in SGR Watershed. For example, lead contribution is 73 percent for SGR compared to 20 percent for the LAR. The reasons for such loading are not independently clear and should be explained.
- g) The proposed TMDL sets the freshwater chronic total PCBs target for aquatic life to 0.0002 µg/L (Draft BPA, Page 3). This is incorrect. The CTR total PCBs criteria for the protection of aquatic life in freshwater is 0.014 µg/L. The PCB target and any corresponding analysis and/or allocations thereof should be corrected.
- h) "MS4-LA County et al" in each water body/source allocation should be clarified to list all responsible cities under the County of Los Angeles and incorporated cities MS4 permit for each water body/source allocation.