

Summary of Comments and Responses on the Los Angeles Area Lakes TMDLs

Prepared by USEPA, Region IX, March 2012

List of public review comment letters received pursuant to a May 13, 2010 public notice:

1. County Sanitation Districts of Los Angeles County
2. City of Thousand Oaks
3. City of Los Angeles comments on Echo Park Lake
4. City of Los Angeles comments on Lincoln Park Lake
5. Las Virgenes Municipal Water District
6. Heal the Bay
7. Los Angeles County, Department of Public Works
8. Los Angeles County, Department of Public Works, Flood Control District

List of public review comment letters received pursuant to a January 25, 2011 public notice:

9. City of Claremont
10. City of San Dimas
11. City of South El Monte
12. City of Thousand Oaks
13. City of LaVerne
14. City of Monrovia
15. Heal the Bay
16. City of Los Angeles
17. Los Angeles County, Department of Public Works
18. Los Angeles County, Department of Public Works, Flood Control District
19. County of Ventura

List of public review comment letters received pursuant to a November 30, 2011 targeted public notice to wasteload allocation holders in the Lake Sherwood watershed:

20. City of Thousand Oaks
21. County of Ventura
22. Sherwood Valley Homeowner's Association

INTRODUCTION

This document summarizes comments received in response to the May 13, 2010, January 25, 2011 and November 30, 2011 public notices, identifies the commenter at the beginning of the comment and responds to the comments. Where multiple comments were received on a single topic, the response generally refers to the most extensive response to a comment and additional details are included for the specific comment(s), as necessary.

CHANGES TO THE FINAL TMDLs

The final TMDLs differ from the draft TMDLs as a result of public comment. The changes include:

- Grouped wasteload allocations were omitted from the final TMDLs.
- Alternative load allocations were added to: the TMDLs for nutrients that include alternative wasteload allocations; the TMDLs for organochlorine pesticides; and the TMDLs for PCBs.
- Text addressing the circumstances under which total nitrogen and total phosphorus allocations can be attained was added to some TMDLs for nutrients.
- Legg Lakes allocations were revised due to a computational error in the draft document.
- Lake Sherwood wasteload allocations were revised to include entities identified since the January 2011 public draft. A targeted public notice was extended to these entities.

REFERENCES

- LARWQCB. 1994. Water Quality Control Plan Los Angeles Region Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties. Developed by the Los Angeles Regional Water Quality Control Board.
- Tetra Tech. 2006. Technical approach to develop nutrient numeric endpoints for California. Prepared for U.S. EPA Region IX and California State Water Resource Control Board by Tetra Tech, Inc., Lafayette, CA.
- UC Riverside. 1994. Evaluation of water quality for selected lakes in the Los Angeles hydrologic basin. Submitted to LARWQCB, December 1994.

| Number | Comment | Response |
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| The following comments were received following a May 13 2010 public notice | | |
| 1 County Sanitation Districts of Los Angeles County | | |
| 1.1 | <p>The Sanitation Districts have reviewed the proposed LA Area Lakes TMDLs and have concerns about the assignment of waste load allocations (WLAs) for PCBs, DDTs, and chlordane. Specifically, the LA Area Lakes TMDLs assign concentration-based WLAs as micrograms of the target pollutant per kilogram of total suspended solids ($\mu\text{g}/\text{kg}$) within the suspended sediment. These concentration based WLAs, however, are not effective for measuring or reducing the mass loading to a lake or a discharger's contribution to a TMDL. If the WLAs remain as drafted, a facility or municipality which reduced its contaminated sediment loading to the impaired lakes might not make any progress towards meeting the TMDL because the remaining sediments that are present might have the same or similar concentration of the target constituents. Alternately, a facility or municipality that does not reduce its contaminated sediment loading and instead allows a new source of clean soil to be eroded by stormwater could comply with the TMDL through dilution.</p> <p>Instead of basing WLAs on pollutant concentrations in suspended solids, it is requested that the WLAs be set as mass loadings of pollutants. The allowable incoming mass loading from all sources should be set equal to the amount leaving a lake due to attenuation, with application of an appropriate safety factor. The internal lake storage of contaminated sediments is by far the greatest contributing source to the impairments. Therefore, once remediation efforts are complete, WLAs set equal to attenuation plus a factor of safety will ensure future lake impairments are avoided and beneficial uses are protected. Furthermore, dischargers to the lakes will be able to meet the WLAs by reducing sediment loadings. This approach will ensure that responsible parties measurably reduce any contaminated sediment loadings to the lakes.</p> | <p>USEPA does not agree that the PCB, DDT or chlordane waste load allocations (WLAs) should be established as mass loads. USEPA believes that establishing mass load allocations for those pollutants could result in ongoing contamination and/or recontamination of the lakes. The TMDLs establish concentration-based WLAs and concentration-based load allocations (LAs) to ensure that water quality standards are not exceeded due to either (1) further accumulation of pollutants in the sediments currently in the lakes or (2) the addition of pollutants in contaminated sediments discharged to the lakes. The pollutants at the surface of the lake bed are the most bioavailable, and most likely to be magnified up the food chain. USEPA believes that allocations expressed as pollutant concentrations in the sediment of the subject lakes are superior to mass-based allocations because the concentration-based allocation will better correlate to fish tissue concentrations and the ultimate goal of achieving the water quality standards. Alternative WLAs and LAs are included in these TMDLs as well in order to provide greater flexibility if fish tissue targets are attained.</p> |
| 2 City of Thousand Oaks | | |
| 2.1 | <p>Incorrect: <i>In total, the private lake, which is connected to the city sewer system.</i> Comment: The private lake is abutted by residential development. This development was historically served by individual septic tanks and was connected to the Triunfo Sanitation District (TSD) sewer system in the middle to late 1980s.</p> | <p>USEPA did not intend to imply that the lake itself is connected to the city sewer system. USEPA has revised the TMDL to clarify that the residences are connected to the city sewer system.</p> |
| 2.2 | <p>Incomplete: <i>The lake is fed by watershed run-off but also contains natural springs.</i> Comment: The lake is fed by watershed run-off and hydraulic contact with Golf Course in-stream, water features which are maintained with the addition of reclaimed water and run-off from reclaimed water use on the golf course. Additional source water comes from natural springs.</p> | <p>The Sherwood Valley Homeowner's Association has clarified that the in-stream water features of the golf course that function during summer months do not overtop a weir that separates the golf course and the lake during dry weather. Reclaimed water is not expected to be a significant source of mercury to the lake and is not being assigned an individual allocation. All runoff from the golf course area, which is in the Western subwatershed, is incorporated into the wasteload allocation assigned to the Lake Sherwood Overall Plan Entities for that subwatershed.</p> |
| 2.3 | <p>Incorrect: <i>Recreation includes catch and release fishing, boating and swimming</i> Comment: Recreation includes catch and release fishing and boating. Swimming is prohibited in the lake.</p> | <p>The Sherwood Valley Homeowner's Association has confirmed that swimming is allowed in the lake.</p> |

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| 2.4 | <p><i>TMDL subwatersheds boundaries for Lake Sherwood are based on the County of Los Angeles subwatersheds.</i> The City does not understand how the TMDL subwatersheds boundaries for Lake Sherwood could possibly be based on the County of Los Angeles subwatersheds. These subwatersheds are well within the boundaries of Ventura County.</p> | <p>The subwatershed boundaries for Lake Sherwood identified in the TMDL were primarily based on a subwatershed boundary dataset maintained by the County of Los Angeles; the County of Los Angeles' dataset includes data regarding portions of the subwatersheds that intersect with Ventura County. USEPA has revised the TMDL to better describe this dataset.</p> |
| 2.5 | <p>Omission: Sources of discharge to the Lake include Lake Sherwood Golf Course via in-stream, water features which are maintained with the addition of reclaimed water and run-off from reclaimed water use on the golf course which is provided from Tapia Reclamation Facility and conveyed and purveyed by Triunfo Sanitation District.</p> | <p>See response 2.2</p> |
| 2.6 | <p><i>For consistency with the other two mercury impaired lakes addressed in this TMDL (Puddingstone and El Dorado Park) , the upland mercury loads will be calculated from tributary monitoring data collected in 2009 and estimates of run-off volumes and sediment loading predicted by an LSPC model.</i> The City is uncertain of the validity of the LSPC model. However, the undeveloped and exposed geology of the Lake Sherwood watershed is made up primarily of Conejo Volcanics with outcroppings of Monterrey formation. These are both formations rich in earth metals.</p> | <p>USEPA calculated the loadings from the watershed using data from samples collected at Lake Sherwood that reflect local geology. USEPA used the LSPC model to estimate flows in the Lake Sherwood, Puddingstone, and El Dorado Park watersheds.</p> |
| 2.7 | <p>Comment: Once more the extensive use of reclaimed water to irrigate two golf courses and the use of that reclaimed water to maintain in-stream water features on those courses which are in hydraulic contact with the lake, are not included among these' additional inputs.</p> | <p>See response 2.2</p> |
| 2.8 | <p>Comments: Airborne deposition of mercury into the Southern California area from the use of heavy-coal fired power plants in China is not included among the additional inputs.</p> | <p>USEPA estimated the air deposition of mercury using depositional data collected at Mercury Deposition Network monitoring sites; the data quantifies mercury deposition at those sites from all air sources.</p> |
| 2.9 | <p>Comments: The use of copper sulfate for algae reduction and the possibility of mercury as a contaminant in that application was not addressed as an additional input.</p> | <p>A literature review did not yield any evidence that copper-based algicides commonly contain high concentrations of mercury.</p> |
| 2.10 | <p>Table 12-7 infers that Thousand Oaks is responsible for the input of MS4 stormwater through the Hidden Valley Wash subwatershed. The jurisdictional property of the City tributary to this subwatershed is made up of 40 acres of undeveloped, zoned Open Space and consists entirely of stormwater run-off not attributable to the City's MS4 system Table 12-7 infers that Thousand Oaks is responsible for the input of MS4 stormwater through the Near-Lake Developed subwatershed. The jurisdictional property of the City tributary to this subwatershed is made up of 8.8 acres of undeveloped, zoned Open Space and consists entirely of stormwater run-off not attributable to the City's MS4 system Table 12-7 infers that Thousand Oaks is responsible for the input of MS4 stormwater through the Northern subwatershed. The jurisdictional property of the City tributary to this subwatershed is made up of 338 acres of undeveloped, zoned Open Space and consists entirely of stormwater run-off not attributable to the City's MS4 system Table 12-9 infers that Thousand Oaks is responsible for the input of MS4 stormwater through the Hidden Valley Wash subwatershed. The jurisdictional property of the City tributary to this subwatershed is made up of 40 acres of undeveloped, zoned Open Space and consists entirely of stormwater run-off not attributable to the City's MS4 system. Therefore the City should not be subject to a Wasteload Allocation. Table 12-9 infers that Thousand Oaks is responsible for the input of MS4 stormwater through the Near-Lake Developed subwatershed. The jurisdictional property of the City tributary to this subwatershed is made up of 8.8 acres of undeveloped, zoned Open Space and consists entirely of stormwater run-off not attributable to the City's MS4 system. Therefore the City should not be subject to a Wasteload Allocation. Table 12-9 infers that Thousand Oaks is responsible for the input of MS4 stormwater through the Northern subwatershed. The</p> | <p>Table 12-7 has been corrected to indicate that Thousand Oaks is responsible for runoff and not MS4 stormwater. This wasteload was incorrectly identified as MS4 stormwater and has since been corrected. See Response 12.2.</p> |

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| | jurisdictional property of the City tributary to this subwatershed is made up of 338 acres of undeveloped, zoned Open Space and consists entirely of stormwater run-off not attributable to the City's MS4 system. Therefore the City should not be subject to a Wasteload Allocation. | |
| 3 | City of Los Angeles, Department of Public Works, Bureau of Sanitation, Comments on Echo Park Lake | |
| 3.1 | The TMDL should indicate the impairments per the 303(d) list. For example, the nutrient related impairments for Echo Park Lake are algae, ammonia, eutrophication, odor, and pH. Therefore, the TMDLs should be named for those impairments, or simply as Nutrient TMDLs, but not as Nitrogen or Phosphorus TMDLs as these are not the impairments. | USEPA disagrees. USEPA concludes that the pollutants causing the suite of nutrient-related impairments of Echo Park Lake are nitrogen and phosphorus, and that identifying the TMDLs as addressing those pollutants is appropriate. |
| 3.2 | Echo Park Lake is close to the boundary of the Ballona Creek watershed (a subwatershed of the Santa Monica Bay management area), but is entirely within the Los Angeles River watershed. The lake is not on the border of two watersheds. This can be shown through City and County GIS information. Please correct this language. | USEPA revised the TMDL in response to the comment. |
| 3.3 | Figure 6.1 is not clear on its use of the term "jurisdictions". Also, a label for "hydrology" is shown on the legend, but not used in the map. Was this meant to indicate the storm drains in the area? | Los Angeles City is the only jurisdiction identified in Figure 6-1. USEPA determined to use a format for Figure 6-1 and its legend that is generally consistent with the formats used in the related TMDLs. The lakes addressed in those TMDLs have more jurisdictions in their watersheds and therefore have more entities listed under that heading. The "hydrography" label is intended to show creeks or rivers of which there are none in Figure 6-1. |
| 3.4 | The delineation of the northern and southern subwatersheds does not make sense, especially since it cuts right through the storm drain network drainage area. How was this boundary selected? It seems arbitrary. A more appropriate delineation would be to note the high flow/wet weather drainage area into the lake from the storm drain network (approximately 725 acres) and the remaining surface runoff area to the lake. | As noted in the TMDL, USEPA identified the subwatershed boundaries described in the Echo Park Lake TMDL using data obtained from the County of Los Angeles. USEPA then subdelineated the County of Los Angeles southern-subwatershed based on a digital elevation model to remove the drainage area downstream of the lake. |
| 3.5 | The staff report makes the statement, "Because both subwatersheds drain to a storm drain system and because many storm drains drain to the lake, all allocations except atmospheric deposition will be wasteload allocations." Again, this is arbitrary (see previous comment about subwatershed delineation). Assignment of waste load and load allocations is reliant on the actual drainage characteristics of the watershed. The majority of the watershed (approximately 725 acres) drains only high flows during wet weather events to the lake. No dry weather flow enters the lake, as it is bypassed around the lake and ends up in the Los Angeles River. Only a small area that drains surface flows to the lake (essentially, the parklands of Echo Park) provide year-round flows to the lake through wet weather or irrigation. Therefore, waste load allocations should be assigned to the high flows to the lake through the storm drain network only, and the load allocations should be assigned to the nonpoint sources (i.e. – park surface runoff) for all pollutants. | As indicated above, USEPA identified the subwatershed boundaries described in the TMDL using data obtained from the County of Los Angeles. USEPA believes that the pollutant loads entering Echo Park Lake from the subwatershed areas should be addressed as WLAs because those loads are predominantly delivered to Echo Park Lake through a stormdrain. Additionally USEPA notes that, upon implementation of the Proposition O Rehabilitation Project, Echo Park Lake will receive dry weather flows. |
| 3.6 | The TMDL states that, "The disturbed area associated with this permit drains to the northwestern storm drain which is diverted around the lake; therefore, no wasteload allocation is assigned to the general industrial stormwater permit in these TMDLs." This is incorrect. The flows from the northwestern storm drain under Glendale Blvd. do enter Echo Park Lake during high flow, wet weather conditions. Therefore, the non-MS4 permittee may be discharging flows during wet weather to the lake that would not be covered under this TMDL. The TMDL needs to assign an allocation to the non-MS4 permittee for wet weather | USEPA has revised the TMDL. Based upon information from a contractor of the City of Los Angeles, USEPA understood that the northwestern stormdrain delivered stormwater to the lake only during extreme high flow events. Upon implementation |

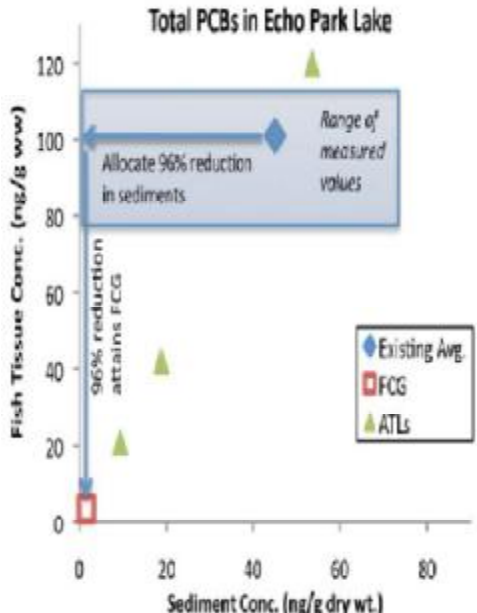
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| | discharges. | of the Proposition O Rehabilitation Project, the northwestern stormdrain will deliver stormwater to Echo Park Lake on a regular basis. Accordingly, the final TMDL assigns a concentration-based wasteload allocation to discharges governed by the general industrial stormwater permit. |
| 3.7 | Please cite the reference used for the identification of a natural spring in the lake. | USEPA added this citation. The natural spring in Echo Park Lake is noted in the Urban Lakes Study (UC Riverside, 1994). |
| 3.8 | It was stated on Page 2-2: "Potential beneficial uses marked with an asterisk (P*) in the Basin Plan (and in the table below) are indicated as a conditional use. Conditional designations are not recognized under federal law and are not water quality standards requiring TMDL development at this time. (See letter from Alexis Strauss [US EPA] to Celeste Cantú [State Board], Feb. 15, 2002.)" Echo Park Lake is listed for potential MUN use marked with an asterisk (P*), only for a conditional use which does not require TMDL development. Therefore, the Bureau requests that Echo Park Lake's MUN beneficial use not be considered in the TMDLs. | Allocations designed to achieve a MUN beneficial use were not proposed nor established in the TMDL for Echo Park Lake. |
| 3.9 | <p>Sections 6.2.3.1 & 6.2.3.2 state EPA's recommendation that pH and ammonia be removed from the next 303(d) listing for Echo Park Lake and that a TMDL should not be assigned for pH and ammonia. Section 6.2.6 states that "based on observed levels of chlorophyll a and DO in Echo Park Lake, existing levels of nitrogen and phosphorus loading result in attainment of both the chlorophyll a and DO targets." Section 6.2.6 also states that "to prevent degradation of this waterbody, nutrient TMDLs will be allocated based on existing loading."</p> <p>If a waterbody is currently achieving all proposed targets (i.e., no beneficial use impairment) and EPA is proposing to set the loading capacity to current conditions (i.e., no reductions are necessary to protect beneficial uses), then a TMDL is not warranted and Echo Park Lake should not be identified as impaired by algal growth, eutrophication, odor, ammonia or pH in California's next 303(d) list. Additionally, the available data indicate the lake does not have a nutrient related impairment. The Bureau requested the original listing data from the Regional Board and EPA; however, EPA informed Bureau staff that those data could not be found. As such, the newer data are the only data available to evaluate whether an impairment exist. The newer data meet the State's minimum data requirements for delisting a waterbody and appear to meet the requirements used by EPA to make findings of non-impairment for pH and ammonia.</p> <p>The Bureau requests that a finding of non-impairment be made for nutrient related listings and the TMDL for Nutrients be removed from the proposed TMDLs for Echo Park Lake.</p> | In August 2010, California identified Echo Park Lake as impaired due to algae, ammonia, eutrophic conditions, odor and pH, as well as for other pollutants, and determined that a TMDL was still needed to address those impairments. USEPA does not agree that it should, at this time, find that Echo Park Lake is no longer impaired due to nutrients, or that a TMDL to address that impairment is unwarranted. |
| 3.10 | What is the basis for selecting 20 ug/L as the chlor <i>a</i> target? The approach that EPA has taken in this TMDL makes the selection of this target critical. It is the basis for running the BATHTUB model, the basis for determining the concentrations for TN and TP that are then proposed as TMDL targets, the basis for determining the existing TN and TP load, and the basis for developing waste load and load allocations. This target essentially defines the impairment and the entire TMDL. The Bureau requests that further justification is provided for the selection of this target. | USEPA established a 20 ug/l target for chlorophyll <i>a</i> after review of <i>Technical Approach to Develop Nutrient Numeric Endpoints for California</i> (Tetra Tech, 2006) and the <i>Total Maximum Daily Load for Eutrophic, Algae, Ammonia, and Odors (Nutrient) in Machado Lake</i> (2009). With respect to <i>Technical Approach to Develop Nutrient Numeric Endpoints for California</i> , see in particular, p. 3-4 through 3-5 ("A target of 20 µg/L suggests blooms will occur about 15-20 percent of the time, which is suggested as the maximum allowable level consistent with full support of contact recreation use."; "Because it is relatively easy to measure, a response target defined as a concentration of chlorophyll <i>a</i> provides a natural basis for assessing use support status in response to nutrient |

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| | | enrichment.”), and Table 3-2. This document identified chlorophyll a levels protective of different uses. The REC1 use is the most protective that exists at these lakes and therefore a target of 20 ug/L chlorophyll a was selected. |
| 3.11 | The TMDL uses the <i>Technical Approach to Develop Nutrient Numeric Endpoints for California</i> (Tetra Tech, 2006) (referred to herein as the CA NNE) to derive total nitrogen (TN) and total phosphorus (TP) targets. The State of California is currently in the process of conducting case studies to validate the CA NNE approach. The case studies and the CA NNE will also undergo a peer review process. Therefore, before such peer review and validation has been conducted, it is premature to utilize the CA NNE to set TMDL targets. | USEPA does not agree that it should not consider or rely on <i>Technical Approach to Develop Nutrient Numeric Endpoints for California</i> (Tetra Tech, 2006) until after California has completed its peer review and further case studies. The document was prepared for USEPA, Region 9, under contract with the Agency, and USEPA concludes that it is sufficiently reliable to be used in this action. |
| 3.12 | <p>Per the Water Recycling Policy, the State of California has a mandate to increase the use of recycled water and to specifically replace potable water with recycled water. The goals for California are to:</p> <ul style="list-style-type: none"> • Increase the use of recycled water over 2002 levels by at least one million acre- feet per year (afy) by 2020 and by at least two million afy by 2030. • Increase the use of stormwater over use in 2007 by at least 500,000 afy by 2020 and by at least one million afy by 2030. • Increase the amount of water conserved in urban and industrial uses by comparison to 2007 by at least 20 percent by 2020. • Included in these goals is the substitution of as much recycled water for potable water as possible by 2030. <p>Additionally, Section 11.c. of the Water Recycling Policy explicitly addresses TMDLs by stating:</p> <p>“Water recycling reduces mass loadings from municipal wastewater sources to impaired waters. As such, waste load allocations shall be assigned as appropriate by the Regional Water Boards in a manner that provides an incentive for greater water recycling.”</p> <p>In Section 6.2.6.6, the TMDL evaluates potential TN and TP concentrations in the lake based on the potential use of reclaimed water but does not consider impacts to beneficial uses, only TN and TP concentrations. Effectively, the TMDL would prohibit the City of Los Angeles from utilizing recycled water as the source water for supplemental water to Echo Park Lake regardless of protection of beneficial uses and based solely on calculated TN and TP targets, in direct conflict with the goals and directions of the State Water Resources Control Board.</p> <p>Therefore, the Bureau of Sanitation is recommending that compliance be assessed based on maintaining beneficial uses (i.e., non-eutrophic conditions, meeting DO targets, and ammonia targets) which would still allow the City to use recycled water in the future.</p> | USEPA does not agree that these TMDLs: would effectively prohibit the City of Los Angeles from using recycled water as the source water for supplemental water to Echo Park Lake; or are in direct conflict with the goals and directions of California’s Recycled Water Policy. USEPA notes that the purpose of the State’s Recycled Water Policy is to increase the use of recycled water from municipal wastewater sources “in a manner that implements state and federal water quality laws”. USEPA agrees that, in order for the TMDLs’ targets and allocations to be met, some additional treatment of the recycled water (by, e.g., use of constructed wetlands, bioswales or other bioinfiltration options) will likely be required. |
| 3.13 | Please provide the basis for using the 95th percentile pH value. | USEPA selected the 95 th percentile pH value to calculate the TMDLs’ targets in part to achieve consistency with the State-established Total Maximum Daily Load for Eutrophic, Algae, Ammonia, and Odors (Nutrient) in Machado Lake (2009). |
| 3.14 | The summary of monitoring data states that the 31 ammonia samples taken in Echo Park Lake during the 1992/1993 study were always less than the acute ammonia target; therefore, it should not be necessary to assign an acute ammonia numeric target. The 2003-2009 data, which included 57 ammonia samples, is also stated in the report as not exceeding the acute or chronic ammonia targets. | USEPA does not agree that the TMDLs should omit the target to prevent impairment due to acute toxicity from ammonia. USEPA believes assigning ammonia targets based on median temperature and 95 th percentile pH values for all waterbodies listed as impaired by ammonia on the latest 303(d) list is appropriate. |

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| 3.15 | Please revise the following: "It is unlikely that the source of the odor reported at Echo Reed Park Lake..." | The correction has been made. |
| 3.16 | <p>While Section 303(d) of the Clean Water Act (CWA) and the U.S. Environmental Protection Agency's (USEPA) 1992 supporting regulations (see 40 CFR 130.7) require States, territories, and authorized tribes to develop lists of waters impaired or threatened by pollutants (i.e., Section 303(d) list) and to develop Total Maximum Daily Loads (TMDLs) for these waters, USEPA's supporting regulations also recognize that alternative pollution control requirements may obviate the need for a TMDL (see 40 CFR 130.7(b)(1)). These alternatives to TMDLs are commonly referred to as "Category 4b" waters, as described in USEPA's Integrated Reporting Guidance (IRG) for Sections 303(d), 305(b), and 314 of the CWA (USEPA, 2005 and 2006). Additionally, Diana Regas (USEPA, Office of Wetlands, Oceans, and Watersheds) states the following in a memorandum dated October 12, 2006 to all EPA Regional Offices (emphasis added):</p> <p>"In addition to providing a recommended organization for Category 4b demonstration, EPA would like to reiterate that States have the opportunity to assign impaired waters to Category 4b where controls sufficient to achieve water quality standards in a reasonable period of time are already in place. Specifically, as indicated in the 2006 IRG and Attachment 2, controls relied on for Category 4b demonstrations do not always need to occur pursuant to binding legal authority. States may choose to rely on controls that have already been implemented where there is sufficient certainty that implementation will continue until WQS are achieved and will not be reversed. Because the controls are already in place and achieving progress, EPA may consider such controls to be requirements even if their implementation did not occur pursuant to a specific binding legal authority."</p> <p>In November 2004, voters of the City of Los Angeles passed the Proposition O - Clean Water Bond, authorizing \$500 million of general obligation bonds for projects to protect public health by cleaning up pollution in the City's rivers, lakes, and beaches. The projects are intended to assist the City of Los Angeles in meeting Federal Clean Water Act requirements. Proposition O - Clean Water Bond will also fund improvements to protect water quality, provide flood protection, increase water conservation, provide habitat protection, and create open space.</p> <p>Proposition O projects are administered by an Administrative Oversight Committee and a Citizens Oversight Advisory Committee. Echo Park Lake will undergo an \$84 Proposition O rehabilitation project that will include dredging the lake, installation of a new liner and addition of clean sediment, and the addition of constructed wetlands and other BMPs to address loadings of sediments to the lake. The project is in implementation phase (approved by the Mayor of the City of Los Angeles and the Los Angeles City Council). As this is a project that is already in place and will result in achieving water quality standards by the removal of the contaminated sediment, it obviates the need for TMDLs for PCBs, chlordane, and dieldrin. Therefore, it is more appropriate for the impairment of Echo Park Lake for PCBs, chlordane, and dieldrin to be addressed through Category 4b and not through a TMDL.</p> <p>EPA provides the recommended structure for addressing EPA's expectations for Category 4b demonstrations. Specifically, EPA requires States to address the following six elements in a Category 4b demonstration:</p> <ol style="list-style-type: none"> 1. Identification of segment(s) and statement of problem causing the impairment(s); 2. Description of the pollution controls and how they will achieve WQS, including a description of the pollutant loads needed to meet WQS and a description of the requirements under which the controls will be implemented; 3. An estimate or projection of the time when WQS will be met; 4. Schedule for implementing pollution controls; 5. Monitoring plan to track effectiveness of pollution controls; 6. Commitment to revise pollution controls, as necessary. <p>In determining what constitutes acceptable "pollution control requirements" to support Category 4b alternatives, the IRG states that the EPA will consider a number of factors including:</p> <ol style="list-style-type: none"> 1. authority (local, state, federal) under which the controls are required and will be implemented with respect to sources contributing to the water quality impairment (examples may include: self-executing state or local regulations, permits, and contracts and grant/funding agreements that require implementation of necessary controls), 2. existing commitments made by the sources to implementation of the controls (including an analysis of the amount of actual implementation that has already occurred), | <p>In August 2010, California identified Echo Park Lake as impaired due a variety of pollutants. In its August 2010 action, the State included several waterbodies on its Category 4B list of water quality limited segments being addressed by actions other than TMDLs; however, the State concluded that Echo Park Lake should not be included on that list. Rather, the State determined that TMDLs were still needed to address Echo Park Lake's impairments. USEPA finds no reason to disapprove the State's determination, and does not agree that the Proposition O restoration project now obviates the need for the TMDLs for PCBs, chlordane and dieldrin.</p> |

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| | <p>3. the availability of dedicated funding for the implementation of the controls, and</p> <p>4. other relevant factors as determined by EPA depending on case-specific circumstances.</p> <p>The Proposition O project addresses the above factors. The TMDL and the Pre-Design Report for Echo Park Lake provide the necessary information to make such a determination. The City is fully committed to the completion of the Echo Park Lake Proposition O rehabilitation project and the funds have been secured. The Bureau is currently in the design phase and will start the process of soliciting bids to complete the rehabilitation project by the end of 2010, with construction planned to begin in 2011 and completed in 2014. As such, the Bureau requests that EPA address the pesticides and PCBs listings through Category 4b or delay promulgation of the TMDL to allow the Bureau to address concerns EPA may have with utilizing Category 4b.</p> | |
| 3.17 | <p>As discussed below in Comment #18, deriving sediment concentrations from fish tissue targets to protect human health is extraordinarily complex. In fact, only one TMDL in the State of California (San Francisco Bay PCBs TMDL) has set waste load and load allocations based on sediment concentrations linked to indirect effects (bioaccumulation). In the San Francisco Bay PCBs TMDL, two San Francisco Bay-specific models were developed and used as the basis for the TMDL: (1) a foodweb-PCBs bioaccumulation model and (2) a long-term fate mass balance model. Other TMDLs in California have acknowledged the complexity and lack of information that is necessary to derive indirect effects-based sediment concentrations and have therefore based sediment targets and/or allocations on direct effects. Protection of human health has been achieved through the selection of fish tissue targets.</p> <p>Given that such site-specific modeling has not been developed for Echo Park Lake, and the complexity in developing sediment concentrations based on indirect effects, sediment guidelines should be based on direct effects and not indirect effects. As human health protection is ensured through the fish tissue targets, this approach will address both indirect effects and direct effects, which is consistent with other organochlorinated compound TMDLs in the State of California. As such, the Bureau requests that EPA base sediment concentration guidelines on direct effects.</p> | <p>These TMDLS protect human health by considering indirect effects of sediment concentrations. If the TMDL targets were based on direct effects alone, no reductions would be necessary to existing sediment concentration since existing sediment concentrations are below direct effect targets for three pollutants. This situation does not protect human health as it would not lead to a reduction in fish tissue concentrations. In order to protect human health, the indirect effects of sediment concentrations have been considered and used to set TMDL targets.</p> |
| 3.18 | <p>Fish Contaminant Goals (FCGs) and Advisory Tissue Levels (ATLs) were recently developed by the Office of Environmental Health Hazard Assessment (OEHHA). The FCGs prevent consumers from being exposed to more than the daily reference dose for non-carcinogens or to a risk level greater than 1×10^{-6} for carcinogens. OEHHA's final report states:</p> <p>"FCGs are based solely on exposure to each individual contaminant, without regard to economic considerations, technical feasibility, or the counterbalancing benefit of fish consumption." ATLs take into account the benefits of fish consumption and are designed to prevent consumers from being exposed to more than the average daily dose for non-carcinogens or to a risk level greater than 1×10^{-4} for carcinogens. OEHHA's final report states:</p> <p>"The use of ATLs still confers no significant health risk to individuals consuming sport fish in the quantities shown over a lifetime, while encouraging consumption of fish that can be eaten in quantities likely to provide significant health benefits and discouraging consumption of fish that, because of contaminant concentrations, should not be eaten or cannot be recommended in amounts suggested for improving overall health (i.e., 8 ounces total, prior to cooking, per week)."</p> <p>Additionally, both the FCGs and the ATLs assume that a consumer (i.e., an individual) will consume a certain serving size per week over a lifetime, which was assumed to be 30 years over a 70 year lifespan. Therefore, an individual would need to eat at least one 8 oz. serving of fish from Echo Park Lake with concentrations greater than the FCGs or the ATLs every week, for 30 years, in order to be at risk of accumulating contaminants to levels that would be harmful to human health. Additionally, Echo Park Lake is a "catch and release" lake. While it is reasonable to anticipate that individuals may potentially consume fish from the lake periodically, it is highly unlikely that an individual will consume even one 8 oz serving every week for thirty years from Echo Park Lake.</p> <p>Further, by using the FCGs as a TMDL target, US EPA is establishing a contradictory public message from OEHHA on the safety of consumption of fish. Using DDT for example, if fish in Echo Park Lake had DDT concentrations equivalent to 400 ug/Kg wet weight, US EPA would require substantial reductions in order to meet the FCGs of 21 ug/Kg wet weight (based on eating one 8 oz. serving per week for 30 years) in order to protect human health. However, based on ATLs, OEHHA would determine that fish containing 400 ug/Kg wet weight would be safe for consumers to eat the same serving size not only once</p> | <p>USEPA does not agree that Fish Contaminant Goals (FCGs) were used inappropriately in the TMDLs addressing Echo Park Lake, or that their use provides a public health message that contradicts OEHHA's position regarding the safety of consuming fish. As explained in the TMDLs, some numeric targets are based on FCGs, as well as on other guidelines. As further explained in the TMDLs, and as required by CWA sec. 303(d)(1)(c), TMDLs also must include a margin of safety. USEPA's use of FCGs to develop the Echo Park Lake TMDLs' targets is consistent with the State's use of FCGs in the TMDLs addressing impairments in Machado Lake, McGrath Lake, Colorado Lagoon and Los Angeles and Long Beach Harbors. See, e.g., Total Maximum Daily Load for Toxaphene for the Santa Clara River Estuary, Staff Report, (2010) ("Thus, use of FCGs provides an effective method for accurately quantifying achievement of the water quality objectives/standards.", p. 19). TMDLs must be written to protect existing and potential uses and in the case of Echo Park Lake fishing is a frequently observed occurrence and an existing use. USEPA selected the</p> |

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| | <p>per week, but three times per week, for 30 years. OEHHA would encourage the same consumer to eat one serving of fish per week for 30 years for fish containing up to 2,100 ug/Kg wet weight. Therefore, US EPA would tell the public that fish are not safe to eat from Echo Park Lake while OEHHA would <i>encourage</i> the public to eat fish from Echo Park Lake. Using the FCGs instead of the ATLs is an overly conservative selection for fish tissue targets for the protection of human health as there are orders of magnitude differences in tissue concentrations between the FCGs and the ATLs, yet the use of ATLs confers no significant health risk to individuals over a lifetime. The selection of FCGs has a significant impact on the management actions that will be required to achieve the sediment targets (see Comment #19)</p> <p>As such, the Bureau requests that the numeric targets be based on OEHHA's ATLs.</p> <p>The TMDL calculates sediment targets using a biotic sediment accumulation factor (BSAF) approach. This approach assumes there is a 1:1 ratio between fish tissue concentrations and sediment concentrations. The Fish Tissue-Based Concentration Targets for the legacy pesticides and total PCBs are calculated based on the ratio of the Fish Contaminant Goal (FCG) to existing fish tissue concentrations: $\text{Ratio} = \text{FCG} / \text{existing fish tissue concentrations}$</p> <p>The ratio is obtained separately from trophic level 4 fish (TL4; e.g., largemouth bass) and bottom-feeding, trophic level 3 fish (TL3; e.g., common carp). The lower (i.e., more conservative) ratio between TL4 and TL3 is then applied as the required reduction in sediments: $\text{Sediment Target} = \text{Existing Sediment Concentration} * \text{Ratio}$</p> <p>Carrying forward the lower of the two trophic-specific ratios assumes that humans consume both trophic level 3 and trophic level 4 fish.</p> <p>Sediment Fish Target: 1.61 3.6 Existing Avg.: 45.1 101</p> <p>This method also assumes a direct, linear correlation exists between levels in sediments and levels in fish. The implication is that, for the example of total PCBs in Echo Park Lake, a 96% decrease in lake-average sediment concentrations (from ~45.1 to 1.6 ppb) will result in a commensurate 96% decrease in lake-average largemouth bass fish tissue concentrations (from ~101 to 3.6 ppb). The station-average sediment data and event-composite tissue sample data for total PCBs in Echo Park Lake are plotted in the figure below along with the average value assumed to represent existing conditions. The sediment target, based on the FCG and the assumed linear relationship between fish tissue and sediments, is also shown. The shaded area contains the range of values used to calculate the averages.</p> | <p>OEHHA FCGs as targets in these TMDLs rather than the ATLs after careful consideration. As stated in OEHHA's Development of Fish Contaminant Goals and Advisory Tissue Levels for Common Contaminants in California Sport Fish: Chlordane, DDTs, Dieldrin, Methylmercury, PCBs, Selenium, and Toxaphene (2008), p. iii, "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" Advisory Tissue Levels (ATLs), on the other hand, are used to provide consumption advice to prevent consumers from being exposed to more than the average daily reference dose for non-carcinogens or to a risk level greater than 1×10^{-4} for carcinogens (not more than one additional cancer case in a population of 10,000 people consuming fish at the given consumption rate over a lifetime). <i>Id.</i>, ATLs are one of the criteria that will be used by OEHHA for issuing fish consumption guidelines. <i>Id.</i> Given their differing purposes, there are key differences between these two sets of numbers. These TMDLs use the FCGs and aim towards attaining a level of contamination in fish tissue that is safe for human consumption with the associated cancer level of only one in a million. In light of the State's practice of reliance upon FCGs when developing its TMDLs, and the CWA's requirement to provide a margin of safety, USEPA concludes that its use of FCGs in the TMDLs for Echo Park Lake is appropriate.</p> |

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| |  <p>This figure shows that using the ATLs results in either (1) currently achieving sediment targets, (2) a 58% reduction to achieve sediment targets or (3) a 79% reduction to achieve sediment targets. The magnitude of conservatism by choosing to base the sediment targets on the FCGs over the ATLs is not warranted. As such, the Bureau requests that ATLs are used in calculating required sediment concentrations.</p> | |
| 3.19 | <p>Water column targets for PCBs, chlordane, and dieldrin should not be included as TMDL targets for the following reasons:</p> <ol style="list-style-type: none"> 1. Fish tissue targets provide the most direct link to protection of human health. There is precedent in the Los Angeles Region (see the Calleguas Creek Watershed OC Pesticides and PCBs TMDL and Ballona Creek Toxics TMDL) for utilizing fish tissue targets as the means to protect human health from consumption rather than the CTR Human Health criteria. 2. The CTR human health criteria are expressed as water column targets by converting a fish tissue target into a water column target (by using a bioconcentration factor). Fish tissue targets, based on OEHHA guidelines, have already been directly expressed in the TMDL. Therefore, including water column targets based on the CTR human health criteria contradicts OEHHA guidance (see Comment #18 regarding OEHHA's FCGs and ATLs). 3. Using fish tissue as the basis for ensuring the protection of human health makes sense not only from an exposure/risk perspective, but also from an analytical perspective as well. As the CTR water column criteria are derived values, many are below current detection limits in water, whereas the fish tissue concentrations are detectable using current analytical methods. This detection limit issue is apparent in the data presented in the TMDL. All of the data in Table 6-10, Table 6-18, and Table 6-26 are below detection limits. <p>The Bureau requests that the water column targets be removed.</p> | <p>USEPA does not agree that water column targets for PCBs, chlordane and dieldrin should be omitted from the Echo Park Lake TMDLs. USEPA does not agree that including water column targets based on human health criteria established in the California Toxics Rule contradicts OEHHA guidance. The water column targets for PCBs, chlordane and dieldrin established in the TMDLs are equal to and derived from the water quality criteria applicable to Echo Park Lake for those pollutants. Including the targets will help ensure that the loads established by the TMDLs are set at levels necessary to attain and maintain those criteria, as required by 40 CFR 130.7(c). See Response 16.5.</p> |
| 3.20 | <p>Chlordane was not detected in over 80% of sediment samples (17 out of 21) in Echo Park Lake. Dieldrin was not detected in a single sample (0 out of 21). Yet in both cases averages were estimated and targets set based on the BSAF method. The introduction to each linkage analysis section states that the linkage analysis provides the quantitative basis for determining the loading capacity of each pollutant into the lakes consistent with achieving water quality standards. However, setting a numeric target based on predominantly non-quantified monitoring results and setting targets significantly lower than current detection limits are inconsistent with such a statement. The Bureau requests that only detected data be considered in setting TMDLs.</p> | <p>USEPA agrees that the Linkage Analysis sections of the subject TMDLs provides the quantitative basis for determining the loading capacity of total chlordane and the loading capacity of dieldrin into Echo Park Lake consistent with achieving water quality standards. USEPA does not agree that the resultant numeric targets were established in a manner inconsistent with</p> |

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| | | <p>the Linkage Analysis or with the statement in the Linkage Analysis to which the comment refers. USEPA does not agree that, because the TMDLs' numeric targets were established after consideration of data sets that include non-detects, the resultant targets were established incorrectly. Further, USEPA does not agree that, because the TMDLs' numeric targets were established at levels lower than current detection limits, the targets were established incorrectly. Using half of the detection limit when averaging samples is common practice. USEPA adopted this approach for the chlordane TMDL. The dieldrin TMDLs were revised in the second draft. The percent reduction required to attain the fish tissue concentration is determined based on a ratio of the existing concentration in fish and the desired level in fish. USEPA revised its analysis to assume the concentrations in the dieldrin TMDLs where there were all non-detect samples were at the detection level. This change in assumption was made to be as generous as possible to dischargers by allowing a higher target concentration since it yielded a higher target concentration. While the water column and sediment concentrations are often below detection limits for chlordane and dieldrin, the levels observed in fish tissue are well above detection limits and above levels protective of human health. Additional flexibility has been included into these TMDLs in the form of conditional wasteload allocations. The BSAF derived sediment wasteload allocations are in place while fish tissue targets have not been met. When fish tissue targets are met the TEC based sediment wasteload allocations will be in place.</p> |
| 3.21 | <p><i>The vortex and constructed wetland treatment system will treat 121 ac-ft/yr of wet weather flows, 123 ac-ft/yr of dry weather flows, and all water used for supplementing lake levels. Lake water will be recirculated through the constructed wetland system at a rate of 600 gpd.</i></p> <p>The recirculation rate is 600 gpm not 600 gpd. Please revise.</p> | This correction has been made. |
| 3.22 | <p><i>The vortex/constructed wetland system will remove 73 percent of the total nitrogen and 51 percent of the total phosphorus loads from treated flows. Recirculation of lake water will increase reduction efficiencies to 94 percent for total nitrogen and 87 percent for total phosphorus.</i></p> <p>Modeling efforts determined that the vortex unit would achieve 77 percent and 68 percent removals of TP and TN, respectively through the northeast constructed wetland without recirculation. After recirculation back through the northeast wetland and edge wetlands, the removals increased to 86 percent and 80 percent, respectively. Please revise the removal percentages accordingly.</p> | This correction has been made. |

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| 3.23 | The TMDL states that PCB concentrations possibly impair the MUN beneficial use, which implies concentrations are elevated in the water column. No data are presented to support that PCBs are impairing the MUN beneficial use. Also, the MUN beneficial use should not be considered in these TMDLs as it is only a conditional use (see Comment #8 for more detail). | USEPA has revised the sentence regarding potential impairment of the MUN use to which the comment refers. |
| 3.24 | The TMDL states (emphasis added): “Elevated levels of PCBs potentially impair the REC1, REC2, WARM, WILD, and MUN uses by causing toxicity to aquatic organisms and raising fish tissue concentrations to levels that are unsafe for human consumption (resulting in fish consumption advisories) and impair sport fishing recreational uses.” OEHHA has not issued a fish consumption advisory for Echo Park Lake and based on ATLS would support consumption of fish from Echo Park Lake at current tissue levels. For further comments on the use of OEHHA's ATLS vs. FCGs, please see comment #18 | USEPA has revised the sentence to which the comment refers. See also Response 3.18. |
| 3.25 | The TMDL states: “The existing sediment PCB concentrations in Echo Park Lake are lower than the consensus-based TEC target, and existing fish tissue concentrations are higher than the fish tissue target. Thus, a separate sediment target calculation based on a biota-sediment accumulation factor (BSAF) is carried out to ensure that fish tissue concentration goals are met.” Similar statements are made in Section 6.6.2 for chlordane and Section 6.7.2 for dieldrin. Consider that fish tissue may be exceeding the target due to the fact that the lake is stocked with fish from other sources (i.e. – Fish and Game). If fish are exposed elsewhere, the rationale for using the BSAF approach is flawed and the sediment targets are overly conservative. Therefore, the Bureau requests that the proposed sediment targets are revised to be sediment <i>guidelines</i> . This approach will keep the focus on protection of beneficial uses (i.e., achieving fish tissue targets) while providing guidance for management actions necessary to achieve the fish tissue targets. However, if the assumed relationship between sediment and fish is flawed, it would not result in a finding of non-compliance if beneficial uses are restored and protected (i.e., fish meet TMDL targets) but out of compliance if sediment targets are not achieved. | USEPA does not agree that the TMDLs' sediment targets should be revised to be sediment guidelines. California Fish and Game conducts regular stocking of trout and catfish at Echo Park Lake. Fish tissue data from carp and largemouth bass which are resident species were used for the development of the biota-sediment accumulation factor and the sediment targets in the TMDLs. |
| 3.26 | All of the water column and sediment samples for dieldrin were non-detect; the detection limit may have been above the target in some cases, but not all, as stated in the staff report. Despite this, an assumption that the water column and sediment are impaired based on samples that are non-detect is inaccurate. It is possible that there are no water column and sediment dieldrin impairments. | See Response 3.20 |
| 3.27 | Echo Park Lake and its drainage watershed are contained within the Los Angeles River watershed which has had an effective Trash TMDL since 2001. A map showing the relationship of the Echo Park Lake to LAR reach 2 would be beneficial to show the relationship. The City has been proactive in meeting those compliance milestones of the LA River Trash TMDL and has kept the LA RWQCB inform of its compliance strategy and trash reduction milestones. The City has already spent over \$50 million dollars in addressing trash discharges into the storm drain system within its jurisdiction and has been successful in continually showing the demanded 10% reduction per year. It is unwarranted that this Echo Park Lake TMDL include point sources, that is the storm drain system, since the City has already employed appropriate trash BMPs to address the LA River Trash TMDL in this area. The document should recognize these efforts and remove requirements directly attributed to point sources since a previous issued Trash TMDL has addressed and set measures in how compliance may be achieved from the storm drain system. At a minimum, the TMDL should indicate that the WLAs should be implemented consistent with the LA River Trash TMDL and associated MS4 NPDES permit requirements. | While USEPA acknowledges the trash-reduction measures undertaken by the City of Los Angeles, USEPA does not agree that the TMDL addressing trash in Echo Park Lake should not address the point sources discharging to the lake. Echo Park Lake is still impaired by trash, and the TMDL must address the point source and nonpoint source loadings as required by 40 CFR 130.2 and 130.7. The allocation remains zero allowable trash. USEPA has added to the TMDL a recommendation that implementation plans be consistent with the Los Angeles River trash TMDL. |
| 3.28 | The Echo Park Lake Trash TMDL WLAs do not assign a storm event along with the allocation of zero. Other TMDLs in the Los Angeles area have set a precedent for this, such as the Los Angeles River Trash TMDLs, which states that responsible jurisdictions must meet the trash allocation of zero up to a 1-year-1-hour storm. The Bureau requests that the Echo Park Lake Trash TMDL also assign the WLAs up to the 1-year-1-hour-storm event to take into account the limitations of implementation options for trash removal (which were stated in Section 6.9.3.3). | Trash is harmful to aquatic life during all weather conditions. The allocation remains zero allowable trash. However, USEPA recommends that implementation plans be consistent with the Los Angeles River trash TMDL. |

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| 3.29 | It is incorrect to assume that the CDS prevented "all trash from passing through". Note that a CDS structure provides for flow bypass. It is unclear to what design storm the CDS structure installed in Calabasas was designed for, thus any data collected from this structure would only be applicable to that storm design. The document supports the concept that trash mobilization is rainfall dependent, in the previous paragraph, thus extrapolating trash generation from this CDS is as well rainfall dependent and specific to the design of the structure. | The information from the Calabasas CDS study enabled an estimate of the current trash loading. It was the best information available to create an estimate. Information from this study does not change allocations since all allocations are set to zero which is the allowable load. |
| 3.30 | The definition of a full capture system needs to be consistent to that contained in the LA River Trash TMDL. The Bureau requests that the following definition, consistent with the LA River Trash TMDL, be included in the TMDL: "A full capture system is any single device or series of devices that traps all particles retained by a 5mm mesh screen and has a design treatment capacity of not less than the peak flow rate (Q) resulting from a one-year, one-hour, storm in the drainage area." | This has been included in the Implementation Recommendations under Section 6.9.3.3. |
| 3.31 | A catch basin insert is a BMP located inside a catch basin. The coarse mesh located at street level reference in the paragraph is typically called a catch basin opening screen cover, which is a partial capture device. Please revise the definition of catch basin insert. | USEPA has revised the sentence addressing catch basin cover screens and catch basin inserts. |
| 3.32 | EPA should take future studies, policies, etc. into account when writing the TMDLs. Therefore, the Bureau requests that a re-opener clause be incorporated into the TMDLs that allows the WLA and LA to be re-evaluated and revised in the future based on supporting information. At a minimum, the Bureau requests an acknowledgement in the TMDL that future information may support a refinement of the TMDL. | USEPA has revised the TMDLs to indicate that, if necessary, they may be revised as the result of new information. |
| 3.33 | Suggested change to 3rd paragraph "In-lake improvements...and removing contaminated soils, <u>fishes and other wildlife.</u> " | USEPA has revised the paragraph to indicate that fish will be removed. |
| 3.34 | Please replace "Peck Park Lake" with "Echo Park Lake". | This correction has been made. |
| 3.35 | Please revise the following for clarification: "The City of Los Angeles Department of Recreation and Parks led an effort to develop <u>submitted a recommendation</u> to develop the [Echo Park Lake Rehabilitation Pplan (Plan)] to the request <u>Proposition O program</u> funds in 2006 (CDM, 2006), headed by the Bureau of Sanitation (BOS), <u>Watershed protection Division. BOS and consultant (CDM, 2006) developed the concept plan and presented it to the Prop O Citizens Oversight Committee for bond funding approval.</u> " | USEPA has revised the text addressing the development and funding of the Echo Park Lake Rehabilitation plan. |
| 3.36 | Paragraph 2: Replace funds "will be allocated" to "were allocated" Paragraph 3: line 5, change SD inlet to inlets line 6: Replace "media filters" with "biological filters" line 8-9: remove "floating and islands" in conjunction with "wetlands" there will not be floating islands in project. Paragraph 4: text states that "Sediment removal BMP's" in the watershed warrant separate implementation and monitoring discussions. Please clarify why these are not included even if only to the level of the trash discussion. | These corrections have been made. Regarding paragraph 4, sediment removal BMPs are discussed under the nutrient and under the organochlorine pesticides and PCBs implementation sections. See sections 6.9.3.1 and 6.9.3.2 of the TMDL. |
| 3.37 | On Line 7 please add "domestic" in front of bird populations. | The language has been changed to refer to the excessive <i>resident</i> bird populations. |
| 3.38 | "The Prop O recirculation system will also assist in removal of small pieces of trash and some particulates." | USEPA has revised the text to indicate that the Prop O recirculation system will also assist in removal of small pieces of trash. |
| 3.39 | Echo Park Lake drains to Reach 2 of the LA River which stretches from Elysian Park to just south of downtown (see map). The health of the Echo Park ecosystem is connected to that of the Los Angeles River both hydraulically and geographically. For this reason, the approach of WPD beyond water quality targets has also been to look at ENTIRE ECOSYSTEMS and their associated health, rather than treating them as isolated water bodies or storm water drainage systems. The improvement and enhancement of all beneficial uses, and specifically open water habitat, wetlands, vegetation and nesting islands that are proposed in parallel with the water quality improvements of the Echo Park Lake Prop O project represent such an approach. It is clear that the attraction of native migratory waterfowl to the wetlands, and the ongoing support of recreational wildlife (such as turtles or gamefish) may be considered as a conflict of objectives from a strict pursuit of pollutant targets. However only if the project truly achieves the beneficial use objectives of the TMDL's, and it encompasses multiple objectives that serve the | USEPA agrees that many of the improvements to be made at Echo Park Lake will enhance wildlife habitat. USEPA has revised the text of the TMDL discussing improvements associated with Echo Park Lake Rehabilitation plan. |

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| | <p>both environment and water quality, will it provide the most comprehensive benefits and cost/value to society. Advising agencies have been requested to consider this approach, and to provide suitable input to either support or to redirect this implementation approach. To date there has been consensus with regulators that beyond the main objective of water quality, the Echo Park Prop O project will also benefit the associated ecosystems and society as a whole. It seems that some form of this statement, and indication of this intent should be included in the TMDL documents.</p> | |
| 4 | City of Los Angeles, Department of Public Works, Bureau of Sanitation, Comments on Lincoln Park Lake | |
| 4.1 | <p>The nutrient related listings for Lincoln Park Lake are ammonia, eutrophication, organic enrichment/low dissolved oxygen (DO), and odor. The TMDL concludes that DO, ammonia and odor are not impairing beneficial uses by stating (pg. 5-10): "DO concentrations do appear to be successfully managed by the aeration system and annual averages were greater than the target of 7 mg/L. No odors were observed during the four most recent sampling events by USEPA and/or the Regional Board. There were no exceedances of the acute or chronic ammonia criteria during any recent sampling events with associated pH and temperature measurements."</p> <p>In order to assess if the eutrophication listing met the delisting requirements for the State of California's 303(d) Listing Policy or met EPA's threshold for a finding of non-impairment, the Bureau requested the original listing data from the Regional Board and EPA as it is not presented in its entirety in Appendix G. However, Bureau staff was informed by EPA that the Regional Board no longer had the data. It is not clear, based on the data presented; that impairment related to the biostimulatory substances exists. Detailing the basis of the impairment is fundamental to the purpose of a TMDL.</p> <p>The objective for eutrophication is based on the narrative objective in the Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties (Basin Plan) for biostimulatory substances. The Basin Plan objective states that: "Waters shall not contain biostimulatory substances in concentrations that promote aquatic growth to the extent that such growth causes nuisance or adversely affects beneficial uses."</p> <p>For an impact to occur, the narrative objective requires (1) aquatic growth to be present in amounts to cause a nuisance or adversely impact beneficial uses and (2) biostimulatory substances to be present at levels that result in aquatic growth at levels that trigger those impacts.</p> <p>Taking the first part of the objective, it must first be determined if a nuisance is occurring or if beneficial uses are being impacted. Appendix A defines the adverse impacts caused by aquatic growth (excessive phytoplankton and macrophyte growth) due to biostimulatory substances (excessive nutrient loading): "Excessive nutrient loading, from either external or internal processes, can cause excessive phytoplankton and macrophyte growth. The resulting plant biomass may cause increased turbidity, altered planktonic food chains, unaesthetic conditions, reduced dissolved oxygen concentrations, and increased nutrient recycling (Figure A-2). These changes can lead to a cascade of biological responses culminating in impaired beneficial uses."</p> <p>Yet, as noted above, Section 5.2.3 of the TMDL (pg. 5-10) states that "DO concentrations do appear to be successfully managed by the aeration system and annual averages were greater than the target of 7 mg/L. No odors were observed during the four most recent sampling events by USEPA and/or the Regional Board. There were no exceedances of the acute or chronic ammonia criteria during any recent sampling events with associated pH and temperature measurements." Therefore, no nuisance or adverse impacts to beneficial uses are occurring. Further, the original listing data are not provided to allow for an evaluation of the basis of the listing that required the development of this TMDL.</p> <p>Taking the second part of the objective, concentrations of biostimulatory substances would need to be reduced in order for aquatic growth not to trigger the impacts to beneficial uses. As noted above, impacts to beneficial uses have not been identified. Thus, the selected chlorophyll a target is either not appropriate for this lake, or the assumed relationships for interaction of "biostimulatory substances" are not correct and the model results are not valid.</p> <p>Section 5.2.2 (Numeric Targets) appropriately identifies the narrative objective in the Basin Plan for biostimulatory substances. However, chlorophyll a was used as a numeric interpretation of the narrative objective, but chlorophyll a concentrations are not numeric objectives in the Basin Plan. By using the numeric value of 20 mg/L chlorophyll a, the cause and effect relationship that is explicit in the narrative objective is removed. During the public meeting at EPA's Southern</p> | <p>Monitoring data considered by USEPA is described in Appendix G. USEPA does not agree that no adverse impacts to the beneficial uses of Lincoln Park Lake are occurring. To the contrary, USEPA finds that aquatic growth in Lincoln Park Lake is occurring to an extent that the lake's beneficial uses are adversely affected, and that such growth is promoted by excess nitrogen and phosphorus.</p> |

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| | <p>California Field Office on June 10, 2010, Bureau staff raised the issue regarding the appropriateness of selecting 20 mg/L chlorophyll a as a TMDL target. EPA staff indicated the selection is based on a level that indicates impairment. However, as noted in the TMDL and in this comment letter, no impairment has been identified.</p> <p>As the TMDL has not demonstrated impairments for ammonia, eutrophication, odor and organic enrichment (dissolved oxygen), the Bureau requests that USEPA make a finding of non-impairment for ammonia, eutrophication, odor and organic enrichment (dissolved oxygen) and that a Nutrient TMDL for Lincoln Park Lake is therefore not warranted.</p> | |
| 4.2 | <p>What is the basis for selecting 20 ug/L as the chlor a target? The approach that EPA has taken in this TMDL makes the selection of this target critical. It is the basis for running the BATHTUB model, the basis for determining the concentrations for TN and TP that are then proposed as TMDL targets, the basis for determining the existing TN and TP load, and the basis for developing waste load and load allocations. This target essentially defines the impairment and the entire TMDL. The Bureau requests that further justification is provided for the selection of this target.</p> | See Response 3.10 |
| 4.3 | <p>The TMDL uses the <i>Technical Approach to Develop Nutrient Numeric Endpoints for California</i> (Tetra Tech, 2006) (referred to herein as the CA NNE) to derive total nitrogen (TN) and total phosphorus (TP) targets. The State of California is currently in the process of conducting case studies to validate the CA NNE approach. The case studies and the CA NNE will also undergo a peer review process. Therefore, before such peer review and validation has been conducted, it is premature to utilize the CA NNE to set TMDL targets.</p> | See Response 3.11 |
| 4.4 | <p>Please add a footer or column to clearly identify the "Basis for Target" to make it clear what is based on the Basin Plan and what is calculated using the CA NNE.</p> | The bases of the targets are identified in each TMDL's "Numeric Targets" section. |
| 4.5 | <p>The following comment is not an alternative to Comment #1, rather, it is provided to address the Nutrient TMDL as it is currently written. As discussed in Comment #1, the available data do not demonstrate a nutrient related impairment for Lincoln Park Lake. As such, it is expected that through the continued management of the lake, the targets associated with the nutrient related listings (ammonia, dissolved oxygen, odor, and eutrophication) will continue to be met. Based on EPA's current approach to target selection, the potential exists for the lake to continue to meet Basin Plan objectives and fully support beneficial uses, without meeting the proposed chlorophyll a, total nitrogen (TN) and/or total phosphorus (TP) targets. Consequently, the Bureau would like to present an alternative approach to the use of the proposed chlorophyll a, TN and TP targets.</p> <p>The alternative approach is the use of the Basin Plan objectives for ammonia, dissolved oxygen, and pH as targets and the chlorophyll a, TN, and TP numeric endpoints as guidelines. The use of guidelines rather than targets for chlorophyll a, TN, and TP concentrations correctly prioritizes the original listings for compliance purposes and correctly focuses implementation actions on the end goals of the TMDL (e.g., addressing identified impairments). As such, if the modeled relationship between chlorophyll a, TN, and TP numeric endpoints and potential impairments is inappropriate, it would not result in non-compliance if beneficial uses continue to be protected but the modeled chlorophyll a, TN, and TP targets are not achieved.</p> <p>Utilizing this approach would also allow the City of Los Angeles to continue to use potable water (which does not meet the assigned WLA in the TMDL) as the source of supplemental lake water. This approach would also make it feasible for the City of Los Angeles to comply with the State of California mandate to increase the use of recycled water and to specifically replace the use of potable water with recycled water. The Bureau requests that the total nitrogen and phosphorus targets be changed to guidelines.</p> | USEPA does not agree and finds that Lincoln Park Lake is impaired by nutrients. Additionally, including nitrogen and phosphorus wasteload and load allocations rather than guidelines is important for successful implementation of the chlorophyll a target. The inclusion of alternative load and wasteload allocation for Lincoln Park Lake as well as additional text addressing the circumstances under which total nitrogen and total phosphorus allocations can be attained provide flexibility in how jurisdictions attain load and wasteload allocations. |
| 4.6 | <p>The text only presentation of the data is very difficult to evaluate. All data should be summarized in a table or several tables, as appropriate. The summary should include the selected numeric targets and the number of samples that exceed the targets.</p> | USEPA believes that the data summaries in Appendix G and the Final TMDLs adequately describe the relevant monitoring data. |

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| 4.7 | It is inappropriate to compare individual data points and/or individual events to the 20 ug/L chlor <i>a</i> target as the target is based on summer average. The status of the impairment should be reevaluated in order to appropriately assess water quality data based on summer average conditions. | USEPA does not agree that the available data measuring the concentrations of chlorophyll <i>a</i> in Lincoln Park Lake cannot be used when assessing compliance with a target expressed as an average. As indicated in the TMDL's Section 5.2, USEPA believes that it has adequately evaluated Lincoln Park Lake's continuing nutrient related impairments. |
| 4.8 | The historical data are appropriate to use as background information, but are not appropriate to assess conditions or make a finding of impairment 18 years later. If current data (i.e., current conditions) do not show an impairment, a finding of impairment should not be triggered by including historic conditions in the assessment. | As indicated in Section 5.2 of the TMDL and Appendix G, USEPA relied upon current data when evaluating whether Lincoln Park Lake is impaired due to nutrients. See also, Responses 3.10, 3.11, and 4.1. USEPA agrees that historical data may be appropriately included in a TMDL as background information; USEPA believes that it has done so here. |
| 4.9 | Please provide a basis that for the assumption that over fertilization is occurring in Lincoln Park Lake. | The City of Los Angeles indicated to USEPA that 16-6-8 fertilizer is applied twice a year in the area surrounding Lincoln Park Lake at a rate of 7.5lbs/1,000 square feet. The technical sheet for 16-6-8 fertilizer recommends a rate of 7.5lbs/1,000 square feet for pre-planting, but further recommends that only 6lbs/1,000 square feet be applied when fertilizing groundcover. See, http://techsheets.simplot.com/Best/74025_turfsup1668.pdf |
| 4.10 | The Bureau requests that this section [Section 5.2.4] be organized by point and nonpoint sources and a summary table of all sources should be provided. | USEPA believes this section and Table 5-3 adequately present the information. |
| 4.11 | The methodology for determining the sources is unclear. The method is vaguely but not fully described at the end of the paragraph, but it should be (1) well described and (2) described first before stating any % contribution from various sources. The Bureau requests that any calculations that were used be explicitly described in detail such that the calculations could be reproduced with the available data. | Sources for the loads established in the TMDL are addressed in the TMDL's Sections 5.1, 5.2 and 5.4, and Appendices D (Estimation of Wet Weather Loading from Runoff and Sediment Transport), E (Pollutant Loading from Atmospheric Deposition) and F (Estimation of Loading During Dry Weather). USEPA believes that the TMDL and appendices adequately describe the sources and the method by which they were determined. |
| 4.12 | The assumption that 5.6% of the total irrigation water reaches the lake is not correct. The assumption would have been applicable to the lake prior to the Water Conservation Policy. However, the City of Los Angeles has been implementing the policy since 2009 by retrofitting the park irrigation system to "smart irrigation". The smart irrigation has zero runoff and only irrigates the park land twice a week due to an ordinance issued from the City. | USEPA has confirmed with the City that smart irrigation has yet to be fully operational. |
| 4.13 | Bird population in the Lincoln Park TMDL was considered between one-half to ¼ of Echo Park (1000). Subsequently, the nutrient loading in the model was adjusted accordingly to match this population range. Please clarify what the nutrient loading from this source would be if the number of birds was between 100 to 200 per day (based on season and number of migratory birds) | Additional text has been included in the TMDL to indicate that if the resident bird population is reduced to 100 birds their total phosphorus loads would be only 7.8 lb-P/yr and 78 lb-N/yr. |

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| 4.14 | While data for flow are provided, no source for the flow data are provided. Additionally, no concentration data are provided in order to evaluate how the load was calculated for each source. Please provide sources for the flow and concentration data. | Appendices A (Methodology for Nutrient TMDL Development), D (Estimation of Wet Weather Loading from Runoff and Sediment Transport) and F (Estimation of Loading During Dry Weather) provide information regarding the sources for the flow and concentration data. |
| 4.15 | The table is titled "Summary of Average Annual Flows and Nutrient Loading to Lincoln Park Lake" but it does not include the bird population described in the text as "a significant portion of the additional parkland loading." Is the table meant to be specific only to point sources? If the bird population is significant, the Bureau requests that all sources be tabulated in order to show all sources and the magnitude of both the point and nonpoint sources. | Table 5-3 summarizes flows and nutrient loading from both point and nonpoint sources. The input identified as "Additional Parkland Loading" includes the nutrient contributions from the bird population at Lincoln Park Lake. USEPA believes that Table 5-3, and the TMDL's Sections 5.1 and 5.4 and appendices adequately describe the sources and their associated loads. |
| 4.16 | If limiting nutrient for the lake is nitrogen, why targets for phosphorous is given. They are very few BMPs to remove phosphorous with the exception of Alum treatment. | Establishing nitrogen targets is necessary to ensure successful recovery from the eutrophic conditions in the lake. The impacts of nitrogen and phosphorus on algal growth are complex and often nitrogen and phosphorus are co-limiting or very close to being co-limiting. Often, the importance of nitrogen and phosphorus will change with fluctuating conditions in the environment and the waterbody, so setting dual targets is the best way to ensure attainment of non-eutrophic conditions. |
| 4.17 | While a cross-reference is provided to Appendix A, it remains unclear what calculations were used to determine the loading capacity. These calculations should be explicitly detailed in the TMDL. | In developing a document that spans ten lakes and multiple pollutants we are striving to keep the overall document from becoming overwhelmingly long by using the Appendices to describe details common to many TMDLs. The TMDL's section 5.2 and Appendix A address the method by which Lincoln Park Lake's loading capacity was calculated. See, in particular: Section A.4.1 (providing details on the calculations within BATHTUB); Appendix page A-15 (describing how the NNE BATHTUB Tool uses Visual Basic's GoalSeek function to find combinations of N and P loading that result in a predicted chlorophyll <i>a</i> being equal to the selected target); and Section A.5.1. |
| 4.18 | The TMDL takes a uniform approach to requiring the same percent reduction of all sources in order to achieve the loading capacity. The WLA and LA are calculated as lbs/year. Per the Linkage Analysis (Section 5.2.6), the allowable loads are based on a summer average concentration of 0.88 mg/L N. Supplemental water additions to the lake have concentrations of 0.891 mg/L (see Appendix F). In order to meet a TMDL based on lbs, a discharger can focus management activities on reducing the concentration, reducing the flow, or both. As the source of supplemental water to the lake is potable water, the TMDL is essentially requiring the City of Los Angeles to either (1) treat potable water and reduce the concentration by 45.5% or (2) reduce the amount of supplemental water (the flow) to Lincoln Park Lake by 45.5%. As it is highly infeasible to treat potable water for supplemental lake additions (and as the concentration would not likely comply with the calculated TN target), the City of Los Angeles would likely need to reduce the flow to the lake. Reducing the flow to the lake, and thereby the lake | USEPA does not agree that the TMDL will essentially require the City of Los Angeles to either (1) treat potable water and reduce the concentration by 45.5% or (2) reduce the amount of supplemental water (the flow) to Lincoln Park Lake by 45.5%. USEPA agrees that, in order for the TMDLs' targets and allocations to be met, some additional treatment of the stormwater runoff or supplemental water flows to Lincoln Park Lake will likely be required by, e.g., the use of |

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| | <p>level, by 45.5% would not result in a desirable outcome from either a water quality or quality of life perspective as supplemental water is the only source of water for the lake. Therefore, the Bureau is recommending that compliance be assessed based on maintaining beneficial uses (i.e., non-eutrophic conditions, meeting DO, ammonia, and pH targets) which would still allow the City to add supplemental water to the lake (and potentially use recycled water in the future).</p> | <p>constructed wetlands, bioswales or other bioinfiltration options. These options reduce nutrient concentrations in discharges to the lake. USEPA has also included alternative allocations in the Final TMDL to afford greater flexibility to dischargers. See, TMDL Section 5.2.6.2 (establishing Alternative "Approved Lake Management Plan Load Allocations" that will supersede the allocations in Table 5-6 under described conditions).</p> |
| <p>4.19</p> | <p>Per the Water Recycling Policy, the State of California has a mandate to increase the use of recycled water and to specifically replace potable water with recycled water. The goals for California are to:</p> <ul style="list-style-type: none"> • Increase the use of recycled water over 2002 levels by at least one million acre- feet per year (afy) by 2020 and by at least two million afy by 2030. • Increase the use of stormwater over use in 2007 by at least 500,000 afy by 2020 and by at least one million afy by 2030. • Increase the amount of water conserved in urban and industrial uses by comparison to 2007 by at least 20 percent by 2020. • Included in these goals is the substitution of as much recycled water for potable water as possible by 2030. <p>Additionally, Section 11.c. of the Water Recycling Policy explicitly addresses TMDLs by stating: "Water recycling reduces mass loadings from municipal wastewater sources to impaired waters. As such, waste load allocations shall be assigned as appropriate by the Regional Water Boards in a manner that provides an incentive for greater water recycling." Yet the TMDL states that "unless BMPs are implemented at the lake to provide treatment of the reclaimed water source, the use of this source will not meet the requirements of the TMDL." Effectively, the TMDL would prohibit the City of Los Angeles from utilizing recycled water as the source water for supplemental water to Lincoln Park Lake, in direct conflict with the goals and directions of the State Water Resources Control Board. Therefore, the Bureau of Sanitation is recommending that compliance be assessed based on maintaining beneficial uses (i.e., non-eutrophic conditions, meeting DO targets, and ammonia targets) which would still allow the City to use recycled water in the future.</p> | <p>See Response 3.12 and 4.18.</p> |
| <p>4.20</p> | <p>The TMDL states that the NNE BATHTUB tool under-predicted the nitrogen and phosphorus concentrations when the calibration factors were adjusted within normal range. Loads were then increased in order to simulate the nitrogen and phosphorus concentrations. How many data points were available for nitrogen and phosphorus concentrations to calibrate the model? The lack of calibration may simply be due to the fact that not enough data have been collected in order for the model to accurately predict nitrogen and phosphorus concentrations. Therefore, instead of increasing loads to the lake, more data may simply need to be collected in order to properly calibrate the model. The Bureau of Sanitation requests that calculations that were used are explicitly described in detail such that the calculations can be reproduced, evaluated, and verified.</p> | <p>The modeling details have been shared with the City.</p> |
| <p>4.21</p> | <p>A number of assumptions were utilized in the NNE BathTUB Tool to predict the nitrogen and phosphorous concentrations. For example a calibration factor of 0.62 was selected. The Bureau requests that the accuracy of the calibration factor be checked against 2008 or 2009 data.</p> | <p>The average summer TN and TP concentrations (1.29 mg-N/L and 0.14 mg-P/L) used to calibrate the BATHTUB model were derived from the 2009 monitoring data. The 2008 data were not incorporated into the average summer TN and TP concentrations because these data did not include summer season sampling of nutrients. The calibration factor was adjusted after all known inputs were included in the model. This factor was used to more closely predict the in-lake average summer TN and TP concentrations. We have reviewed the modeling files and have found that the reported values are correct.</p> |

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| 4.22 | We would like to replicate/verify the bathtub model results reported in the Lincoln Park Lake TMDL. The text from the TMDL staff report and the appendixes is not entirely clear with respect to some of the parameters (i.e. for ortho-p load and inorganic-N load). We have communicated with EPA on this issue and are waiting on a) the list of the model inputs, and b) the version of the Bathtub Model Tool that was used. To verify the Model results, the city appreciate if EPA provide us with the Bathtub Model Tool(aka, the spreadsheet tool) | The inputs and information have been provided. |
| 4.23 | The total nitrogen concentration (TN) is 0.891 mg/L and the total phosphorous concentration is 0.118 mg/L in the potable water (Table F-7). Both nutrient concentration in the potable water exceeds the TMDL targets of TN = 0.8 mg/L and TP = 0.08 mg/L. Currently the only way for the City to replenish the lake is with the use of potable water. Without potable water there would be no lake. Additionally, the potable water must be added to the lake in the summer months to compensate for the water loss due to the evaporation. Please explain how the model accounts for the nutrient input from the potable water and why the targets are lower than the input water. Setting chlor a target as 20 ug/L not only may not be correct for Lincoln Lake, but it triggers nitrogen and phosphorous targets that are not feasible and may not be needed to meet noneutrophic conditions. | The nutrient concentration of the potable water is incorporated into the BATHTUB model. The allocations established in the TMDL are lower than the current inputs because reductions were assigned evenly to all inputs. |
| 4.24 | "Zero trash is defined as no allowable trash discharged into the waterbody of concern, shoreline, and channels". It is unclear what is meant by "discharge" or what activates/set in motion a "discharge". Please revise the sentence as follows to provide clarity on what is meant by "discharge for consistency with the effective LA River Trash TMDL: ". . . . trash discharged from a storm event equal or less than a 1-yr, 1-hr storm into the waterbody. . ." | USEPA recommends that implementation plans be consistent with the Los Angeles River trash TMDL. See Response 3.28. |
| 4.25 | It is incorrect to assume that the CDS prevented "all trash from passing through". Note that a CDS structure provides for flow bypass. It is unclear to what design storm the CDS structure installed in Calabasas was designed for, thus any data collected from this structure would only be applicable to that storm design. The document supports the concept that trash mobilization is rainfall dependent, in the previous paragraph, thus extrapolating trash generation from this CDS is as well rainfall dependent and specific to the design of the structure. | See Response 3.29. |
| 4.26 | As Lincoln Park Lake is in the LA River watershed, which has a Trash TMDL, the Bureau requests that "major storms" be defined as a 1yr-1hr storm to be consistent with the LA River Trash TMDL. | USEPA recommends that implementation plans be consistent with the Los Angeles River trash TMDL. See Response 3.28. |
| 4.27 | <p>There are many uncertainties and assumptions that were made in the modeling and the development of the Nutrient TMDL. The results of special studies may be used to reevaluate TMDL targets, guidelines, and load allocations. For the Lake Elsinore and Canyon Lake TMDLs (SARWQCB, 2004), special studies were integrated into monitoring, which provided essential information for the update of models and re-evaluation of the source assessments and allocations. The Bureau requests that the following potential optional special studies be identified in the monitoring section of the TMDL (please note that the initiation and completion of the studies is voluntary):</p> <ol style="list-style-type: none"> 1. Evaluate the potential effects of increased aeration of lake water quality. Aeration can increase DO levels in surface waters as well as distribute DO throughout the water column. Consequently, in addition to directly increasing water column concentrations of DO, aeration can indirectly improve DO conditions by oxygenating the sediment surface which can in turn reduce the release of nutrients from sediments and concomitant algal growth in the water column. An evaluation of the potential benefits of aeration could indicate whether or not aeration alone would be sufficient to meet the DO target and to what extent aeration could contribute to the achievement of TN and TP guidelines and allocations (i.e., through reducing internal loading rates). The information could allow refinement of allocations and evaluation of the potential effectiveness of implementation actions. The information gained through this study may be appropriate for use in reconsidering the inputs utilized in the TMDL model (assumed to be the Nutrients Numeric Endpoints (NNE) BATHTUB spreadsheet tool). 2. Evaluation of relationship between in-lake nutrient concentrations, DO, and algae related targets. Monitoring could be conducted to collect sufficient data to develop a relationship between DO/chlorophyll-a and TN and TP concentrations that could be used to refine TMDL targets, guidelines and allocations for TN and TP. Additional data could be collected for other nutrient constituents to determine the key contributors to eutrophication and the overall nutrient balance of the | The TMDLs have been revised to include the option to develop a Lake Management Plan for approval by the Executive Officer of the Los Angeles Regional Water Quality Control Board that could incorporate lake management strategies similar to those proposed here. |

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| | <p>Lake, as well as determine if more appropriate targets can be justified rather than TN and TP. These include total and dissolved organic nitrogen (often represented as Total Kjeldahl Nitrogen [TKN]), total dissolved phosphorus, nitrite, nitrate, ammonia, soluble reactive phosphorus, and dissolved organic carbon. The information gained through this study may be appropriate for use in reconsidering the inputs utilized in the TMDL model (assumed to be the Nutrients Numeric Endpoints (NNE) BATHTUB spreadsheet tool), or development of a more-detailed eutrophication model that provides improved resolution of eutrophication processes (e.g., representation of diurnal DO) or can provide better representation of in-lake management practices.</p> <p>3. Internal nutrient loading will likely be estimated in the TMDL using assumed maximum flux rates. A sediment core study or direct in situ measurements could be undertaken to estimate the nutrient flux and oxygen demand from sediments under varying seasonal conditions as opposed to during maximum fluxes. In addition, the potential for lake aeration to reduce nutrient fluxes could be investigated by aerating overlying water during sediment core incubations. The approach could generally follow that of the study employed at Canyon Lake to quantify sediment nutrient release and determine sediment and water oxygen demand, which helped in the determination of appropriate in-lake nutrient control strategies. Results from this study could be beneficial to gauge the success of implementation measures such as sediment removal and aeration as they were gauged in the Canyon Lake study. The information gained through this study may be appropriate for use in reconsidering the inputs utilized in the TMDL model (assumed to be the Nutrients Numeric Endpoints (NNE) BATHTUB spreadsheet tool).</p> <p>4. Update the TMDL model, or develop an improved technical approach (including a new model) for TMDL development, based on previous special studies. This model can also incorporate alternate in-lake management practices, prior to their implementation, to assess their benefit in terms of improving water quality. Likewise, following implementation of management practices, their benefits can be incorporated into the model and the TMDL and associated load allocations can be reevaluated. Modeling of the lake nutrient has supported implementation efforts and TMDL reconsiderations in the Lake Elsinore and Canyon Lake nutrient TMDLs. The models for Lake Elsinore and Canyon Lake provided support for the reduction of future allocations.</p> <p>5. A pilot study for the introduction of wetlands and rain gardens into the park. Results would help determine the devices' efficacy in improving water quality and feasibility as BMPs. The study could include signage to provide additional benefit in terms of public education of innovative stormwater treatment processes, to promote wider implementation.</p> <p>6. A habitat study of Lincoln Park Lake to identify any populations (bird and fish) that may be contributing to nutrient loads. Such a study should precede initiatives for bird and/or fishery management to support an evaluation of the potential effectiveness of implementation actions.</p> | |
| 5 | Las Virgenes Municipal Water District | |
| 5.1 | <p>Regarding Lake Calabasas, our primary concern is that the TMDL does not acknowledge the presence of significant deposits of Tertiary age marine sediments of the Monterey Formation within the Lake's drainage area (Fig. 1). This Formation is a well-known petroleum source rock, and local exposures are enriched in compounds the TMDL proposes to regulate (e.g. nutrients), along with significant levels of organic carbon, trace metals, selenium, and high-sulfate salts¹. Water quality impacts have been linked with this geology in the Malibu Creek watershed, immediately adjacent to the Lake Calabasas drainage².</p> <p>The potential impacts of this geology are particularly acute for algal growth, which the TMDL proposes to limit to less than 25 percent of the surface of Lake Calabasas by reducing nutrient inputs to the Lake. Biggs (2000) cautions that this approach - essentially trying to nutritionally "starve" algae to the desired level - will likely fail in the presence of significant deposits of Tertiary marine sediments like those of the Monterey Formation:</p> <p>"It is very important that the public's expectations are realistic. However, there are many cases in which they aren't. Habitat classification helps us identify such situations. For example, people might want to have a particular section of a stream managed for recreational fishing, and for this to happen, it might be necessary to eliminate blooms of filamentous</p> | <p>USEPA appreciates the background information on the watershed geology provided by the Water District. However, these TMDLs are set at level of chlorophyll a protective of the beneficial uses designated for the lakes. If the Las Virgenes Municipal Water District would like to pursue a use attainability analysis of this waterbody they should contact the Regional Board.</p> |

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| | <p>algae during summer. <u>However, if the catchment includes a significant proportion of Tertiary marine siltstones which are rich in nutrients, this would be readily detected in the habitat classification. It would then be clear that filamentous algal growths are a natural product of the catchment conditions and clearly impossible to control.</u>" [JPA emphasis]</p> <p>The JPA recognizes that the state and the US EPA are under significant pressure to complete this TMDL within the schedule called for under the TMDL Consent Decree. However, legal compliance serves no purpose if the water quality targets identified in the TMDL cannot be achieved on the ground because a natural geological source was overlooked in the push to complete it on time. The distribution of the Monterey Formation and other petroleum source rock in the Los Angeles Basin is very site-specific, ranging from large deposits across multiple drainages (i.e. Malibu Creek upper tributaries) to isolated patches in coastal canyons (i.e. Lachusa Creek, Ramirez Canyon). Detailed work by the JPA in the Malibu Creek watershed demonstrates significant water quality impacts associated with the large Monterey Formation deposits in the creek's northern headwaters, north of the 101 Freeway. Whether similar impacts occur in Lake Calabasas and elsewhere in the Los Angeles Basin where the Monterey Formation occurs is an important, open question. Work on natural sources by Stein and Yoon (2007) demonstrates that sedimentary rock in southern California in general has elevated levels of nutrients that commonly exceed national and even EPA Ecoregion-specific guidance targets. However, comparing their regional results with local water quality finds that the Monterey Formation's impacts on native water quality are unusual even for the marine sedimentary deposits they studied, something the US Geological Survey already recognizes (see footnote 1, page 1).</p> <p>Given these findings, the JPA believes the Regional Board should reconsider before adopting and implementing <i>any</i> TMDL absent at least some information on the geology of the target watershed. In our opinion, no party should be willing to accept a "geology blind" TMDL where significant deposits of the Monterey Formation are known to occur, as for Lake Calabasas.</p> <p>Analysis Lake Calabasas lies almost entirely downstream from the Monterey Formation (Figure 1; Yerkes and Campbell, 2005), a highly enriched Miocene marine sediment and the primary oil bearing formation in California (Isaacs and Rullkötter 2001). Surface water quality investigated in nearby Malibu Creek watershed indicates that water draining the Monterey Formation is enriched in many regulated water quality constituents, including nitrogen and phosphorus (Piper and Isaacs, 1994; Piper and Isaacs, 2001; Filippelli <i>et al.</i>, 1994). Filippelli <i>et al.</i> (1994) found that phosphate by percent weight ranged from 0.4 to 3.9% at one location.</p> <p>Four Monterey Formation samples we had tested from the Malibu Creek watershed averaged 0.1% phosphorus by weight. The Monterey Formation is also known to have high concentrations of potentially hazardous elements (Piper and Isaacs, 1994; Piper and Isaacs, 2001; U.S. Geological Survey, 2002, http://geomaps.wr.usgs.gov/env/monterey.html).</p> <p>Figure 1 (below) shows three water quality monitoring locations, all upstream from development, which are within the same geologic formation as Lake Calabasas – the Monterey Formation. Average dry season phosphorus data from these locations is shown in Table 1, where the summer dry season is defined as April 15 through November 15.</p> <p>Values from undeveloped headwaters in the Monterey Formation (Table 1) regularly exceed the numeric target of 0.066 mg-P/L for total phosphorus proposed in the TMDL for Lake Calabasas. The range of total phosphorus values given for Lake Calabasas in section 7.2.3 fits with values from the sites shown in Figure 1, consistent with a Monterey Formation source.</p> | |

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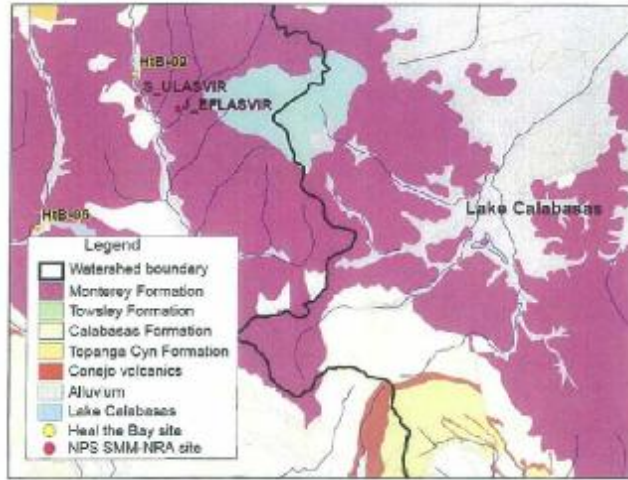


Figure 1. Lake Calabacas in reference to surrounding geology (Yerkes and Campbell, 2005). Three nearby surface water monitoring stations are in undeveloped headwaters.

Section 7 of the Los Angeles Area Lakes TMDLs - May 2010 Draft, Lake Calabacas TMDLs, provides a summary of monitoring data (Section 7.2.3) that are mostly below the proposed numeric target of 0.66 mg/l TN and numeric targets for ammonia of 0.78 mg/l (acute), 0.46 mg/l (4-day) and 0.19 mg/l (30-day). Nitrogen data from the nearby sample stations in undeveloped Monterey Formation would sometimes meet those targets and sometimes exceed them (Table 2). These values are not surprising considering that the Monterey Formation is known for oil seeps and oil source rock in some locations where depth of burial resulted in sufficient temperatures and pressure to form kerogen from biogenic sediment (Isaacs and Rullkötter, 2001). These sites in undeveloped headwaters would not meet the proposed TN and ammonia targets so the targets may not be appropriate for Lake Calabacas.

Table 2. Nitrogen species concentrations measured in undeveloped Monterey Formation headwaters of Malibu Creek watershed the in the vicinity of Lake Calabacas. The numeric targets in the proposed Lake Calabacas TMDL are 0.66 mg/L for TN and 0.78 mg/l (acute), 0.46 mg/l (4-day) and 0.19 mg/l (30-day) for ammonia.

| Site | No. Samples | NO3-NO2-N (mg/l) range (avg) | NO3-N (mg/l) range (avg) | NH3-N (mg/l) range (avg) | Agency |
|----------|-------------|------------------------------|--------------------------|--------------------------|--------------|
| HtB_00 | 25 summer | 0.005-0.05 (0.01) | - | 0.01-2.00 (0.13) | Heal the Bay |
| | 25 winter | 0.005-0.05 (0.01) | - | 0.01-0.14 (0.05) | |
| HtB-09 | 20 summer | 0.01-0.03 (0.01) | - | 0.005-0.08 (0.04) | Heal the Bay |
| | 10 winter | 0.01-0.04 (0.01) | - | 0.005-0.48 (0.09) | |
| J_ | 4-summer | 0.55-3.98 (2.27) | 0.12-0.90 (0.51) | 0.05-0.45 (0.25) | SMM-NRA |
| EFLasVir | 1-winter | 0.03-3.54 (1.26) | 0.01-0.80 (0.29) | 0.02-6.37 (2.17) | |
| S_ | 2-summer | 0.04-1.03 (0.60) | 0.01-0.23 (0.14) | 0.01-0.05 (0.04) | SMM-NRA |
| ULasVir | 3-winter | 0.04-1.10 (0.07) | 0.01-0.02 (0.02) | 0.05-0.05 (0.05) | |

We encourage the Regional Board to recognize the influence underlying geology can have on water quality. The EPA has recognized the effects of enriched marine sedimentary substrate on surface water quality in Florida, where proposed TMDL numeric nutrient criteria vary by watershed depending on the relative influence from similar Miocene marine sedimentary rock. The proposed range for TN is 0.89-1.48 mg/l and for TP and 0.04-0.74 mg/l with higher values in watersheds dominated by Miocene marine sedimentary formations like the Monterey Formation.

1 See the US Geological Survey website on this formation, <http://geomaps.wr.usgs.gov/env/monterey.html>.

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| | <p>² We incorporate by reference our correspondence on the Monterey Formation previously submitted for the Triennial Review of the Los Angeles Basin Plan and the 2008 update of the Los Angeles Basin List of Impaired Waters pursuant to §303(c) and §303(d) of the Clean Water Act.</p> | |
| 6 | Heal the Bay | |
| 6.1 | <p>We support many aspects of this TMDL, particularly the inclusion of concentration-based waste load allocations (WLAs) for the constituents of concern in the water column, the inclusion of a zero trash target for the lake trash TMDLs, and the addition of TMDLs for impairments identified for chlordane and dieldrin at Echo Park and PCBs and dieldrin at Peck Road Park Lake. We also support the inclusion of an explicit 10% margin of safety to some of the load allocations (LAs) for constituents of concern. However, we also believe a 10% explicit margin of safety (MOS) should be applied to all LAs and WLAs within the TMDL.</p> | Comment noted. |
| 6.2 | <p>USEPA correctly assigns TMDLs of zero trash. The Draft Los Angeles TMDLs for Peck Road Park Lake, Lincoln Park Lake, and Echo Park Lake establish numeric targets of zero trash, final Waste Load Allocations ("WLA") of zero trash and final Load Allocations ("LA") of zero trash. We strongly support these requirements, as zero is the only appropriate TMDL for trash given the water quality standards for these waterbodies set forth in the Basin Plan and Clean Water Act requirements. The federal Clean Water Act requires states to establish TMDLs "...at levels necessary to obtain and maintain the applicable narrative and numerical WQS [water quality standards] with seasonal variations and a margin of safety which takes into account any lack of knowledge concerning the relationship between effluent limitations and water quality."¹ The Basin Plan calls for no floatables or settleables that will cause a nuisance or adversely affect beneficial uses. Even small quantities of trash violate the Clean Water Act and Basin Plan. For instance, small amounts of trash are unsightly and can maim or kill wildlife that becomes entangled in, or ingests, the debris. Plainly, zero is the only fair interpretation of the Basin Plan water quality standards that will guarantee protection of the beneficial uses of these waterbodies with an appropriate margin of safety. Also after numerous legal challenges by the regulated community, the courts upheld the LA River Trash TMDL zero trash limit as an appropriate regulation. Thus, the Regional Board staff's proposal of zero trash discharge is, clearly, appropriate. As discussed below, it is particularly important to have an implementation plan to address trash LAs.</p> | Comment noted. |
| 6.3 | <p>USEPA must use all available data to justify making the determination no TMDL is required for certain lake impairments. Our main concern with this TMDL is the finding of nonimpairment for numerous waterbody-pollutant combinations. We have reviewed the document, <i>Assessment Supporting Determination under Consent Decree, para. 8 Heal the Bay, Inc., and others v. Browner, No. C 98-4825 SBA (N.D. Cal)</i>, and do not agree that USEPA was justified in determining the data show no impairments for many of the listed impairments presented in this document. EPA must consider all relevant data prior to making a finding of nonimpairment. In many instances, EPA disregarded the data collected during the time when the original listing was made. For instance, EPA disregarded data prior to 1999 for ammonia in Dominguez Channel because the basin plan objective changed since 1999 to be dependent on pH and Temperature and "these older data sets cannot readily be compared to the appropriate pH and Temperature dependent basin plan objective." In addition, several data sets for metals were not used due to the lack of accompanying hardness data. As a result, no metals TMDLs were developed for all copper and lead impairments within these lakes. We argue that instead of throwing out these data sets, EPA should make an effort to estimate the needed parameters and should still consider this data in their evaluation. For example, the median hardness value from newer data sets could be used for the older metals data. In addition, we are concerned that much of the newer data is collected over an inadequate timeframe. The data collected should be over a span of time so that temporal variability and critical conditions are appropriately captured. For instance, the finding of nonimpairment for copper and lead in Westlake was based on 16 samples that were taken in 11 months. This short timeframe is not adequate for capturing variability. In the last five years, the region has seen record drought and record rainfall. Instead, we believe that at least 3 years of data are necessary to capture temporal variability and critical conditions and to adequately assess the waterbody.</p> | <p>For reasons explained in its letter dated August 20, 2010, with enclosure, EPA determined that no TMDL is needed for Echo Park Lake copper, lead, ammonia, and pH, and for other waterbody-pollutant pairs. EPA's analysis of the data as described in the TMDL does not persuade it that a TMDL for those waterbody-pollutant pair is now warranted; rather, EPA continues to believe that the waterbodies are not impaired due to those pollutants. EPA expects that, if the data meets the State's Listing Policy thresholds the State will delist the waterbody-pollutant pairs in the upcoming 2012 303(d) list. With regards to pH in the LA Lakes, the existing Regional Board water quality objective for pH states the following: " The pH of inland surface waters shall not be depressed below 6.5 or raised above 8.5 as a result of waste discharges. Ambient pH levels shall not be changed more than 0.5 units from natural conditions as a result of waste discharge." None of the lakes addressed in this document exceed that objective.</p> |

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| | <p>Finally, we are concerned about the pH findings in the study. Staff prematurely concluded that many of the pH exceedances were caused by natural sources and thus do not need a TMDL. However, the information provided does not provide sufficient evidence to reach this conclusion. For instance, were sediment samples collected to determine if sediment could be a source? EPA needs to conduct more in-depth studies to determine if "natural" background levels are truly the source before any finding of nonimpairment occurs.</p> <p>In sum for the reasons expressed above, EPA should further evaluate the data sets to ensure that findings of nonimpairment are truly justified. If this due-diligence is not conducted, a horrible precedent would be set for future delistings.</p> | |
| 6.4 | <p>An explicit Margin of Safety ("MOS") should apply to all LAs and WLAs in the TMDL.</p> <p>Heal the Bay strongly supports the USEPA's inclusion of an explicit margin of safety into the load allocations for certain pollutants of concern for several of the lakes in this TMDL. The USEPA's decision to include an explicit margin of safety for many of the LAs is reasonable and justified. We believe the uncertainties associated with these LAs warrant the 10% explicit margin of safety included in this TMDL. However, we believe the EPA must go further and apply an explicit MOS to all of the load allocations and waste load allocations in the TMDL, including nutrient-related impairments, organic pollutants and toxics. There are precedents for applying explicit margins of safety to sediment TMDLs within Region 9. For instance, the TMDL for Colorado Lagoon OC Pesticides, PCBs, Sediment Toxicity, PAHs, and Metals incorporated a 10% explicit margin of safety to mass based waste load allocations. The mass based WLAs for ammonia in the Calleguas Creek Nitrogen and Related Effects TMDL include a 10% explicit margin of safety to account for uncertainty concerning the relationships between WLAs and attainment of the water quality standards addressing algae and other listed stressors associated with nutrient loads. Also, a 10% MOS was applied to LAs for the Machado Lake Pesticides and PCBs TMDL soon to be adopted by the Los Angeles Regional Water Quality Control Board. Thus, USEPA's decision to include an explicit margin of safety is consistent with these other TMDLs, and the USEPA should go further by including an explicit MOS for all WLAs and LAs in this TMDL.</p> <p>EPA reasons that the LAs and WLAs that do not have an explicit MOS are given an implicit MOS based on conservative assumptions made in their development. We argue that the many uncertainties and other non-conservative assumptions made may negate these implicit margins of safety. For instance, as we mention below, we believe uncertainties associated with the use of the NNE BATHTUB model to predict nutrient loads introduces added uncertainty in to the calculation of LAs and WLAs. Also, EPA maintains that there is an implicit margin of safety in the choice of CTR human health criteria. We support these targets, but we do not agree they provide an adequate MOS in and of themselves. CTR criteria themselves have associated uncertainties. For instance, as described in the Federal Registry, "[a]n aquatic life criterion derived using EPA's CWA section 304(a) method might be thought of as an estimate of the highest concentration of a substance in water which does not present a significant risk to the aquatic organisms in the water and their uses." (45 FR 79341). EPA's 1985 Guidelines attempt to provide a reasonable and adequate amount of protection with only a small possibility of substantial overprotection or underprotection. The approach EPA used is believed to be as well balanced as possible...[emphasis added]" 40 CFR part 131. Thus, the use of CTR criteria does not constitute an adequate implicit MOS.</p> <p>EPA states that setting allocations based on the lower of either the BSAF-derived sediment target or the consensus-based TEC sediment target contains an implicit MOS. EPA also asserts that the choice of the lower of TECs or BSAFs as numeric targets and in developing load allocations for the sediment constitute an implicit margin of safety. While TECs are derived from multiple sediment quality criteria, they are not derived based on the most conservative criteria for sediment targets. Likewise, the use of BSAF in situations where the BSAF value is less than the respective TEC does not constitute an adequate implicit margin of safety.</p> <p>We support EPA's inclusion of a 10% explicit MOS to nutrient TMDLs for lakes that currently exceed numeric targets. However, EPA has not included an explicit MOS for those lakes that currently have nutrient concentrations below the numeric target for chlorophyll <i>a</i>. In these cases where no explicit MOS was applied, EPA argues that "This lake is currently achieving the in-lake chlorophyll <i>a</i> target and TMDLs are being established at the existing loads. This conservative anti-degradation measure is the implicit margin of safety for these TMDLs." While we agree that setting loading capacity at existing levels is appropriate to prevent backsliding, we do not see how setting the loading capacity to existing conditions constitutes any</p> | <p>USEPA does not agree that an explicit margin of safety is warranted for all TMDLs. In the nutrient TMDLs requiring a reduction in loading a 10% margin of safety has been applied. USEPA disagrees with the commenter that an explicit margin of safety should be included for the TMDLs established for lakes where current data indicate attainment of the chlorophyll <i>a</i> target. USEPA also maintains that the use of the UCL to set the mercury targets is an explicit margin of safety. The regression line would be the best fit line of the data and could be used to set the target. Additionally the conservative assumptions for the organochlorine pesticides and PCBs TMDLs provide an adequate implicit margin of safety.</p> |

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| | <p>implicit margin of safety given the uncertainties in using a 20 µg/L target for chlorophyll <i>a</i>, as we explain below. In addition, EPA's determination that the use of 95% upper confidence limit ("UCL") for mercury load reductions in fish tissue constitutes an explicit margin of safety is unfounded. While we agree the 95% UCL for determining load mercury concentrations is appropriate, we do not agree that it provides an explicit margin of safety. In fact, the poor correlation between the observed data and the trend lines used to develop the 95% UCL means this value does not provide an explicit margin of safety. The scattered nature of the data did not closely fit the associated regression line, meaning many mercury concentrations observed in largemouth bass collected from lakes impaired by mercury exceeded this boundary. For instance, in El Dorado Park Lake 7 out of 19 observed largemouth bass had mercury concentrations at or above 95% UCL, in Puddingstone Reservoir 6 out of 22 had levels at or above 95% UCL, and in Lake Sherwood 3 out of 19 largemouth bass observed had mercury concentrations above the 95% UCL for their respective sizes</p> | |
| 6.5 | <p>Concerns Regarding the Calculation of Nutrient Loading Capacity and Allocations</p> <p>EPA used the NNE BATHTUB model to calculate the maximum amount of total nitrogen and phosphorus loading consistent with meeting the numeric target of 20 µg/L of chlorophyll <i>a</i>. However, eutrophic conditions can exist with chlorophyll-<i>a</i> values much less than 20 µg/L. In Machado Lake, for example, nutrient impacts were observed at chlorophyll <i>a</i> levels as low as 7.3µg/L. Also, up to 10% transparency loss was observed in Florida lakes with chlorophyll <i>a</i> levels as low as 15 µg/L. The specific type of lake system may dictate appropriate chlorophyll <i>a</i> levels. For instance, in the recently drafted EPA Nutrient Criteria for Florida Lakes, it was determined that a chlorophyll <i>a</i> level of 20 µg/L was an appropriate boundary between eutrophic and mesotrophic lake systems, but a lower concentration of 7 µg/L was observed as the boundary between oligotrophic and mesotrophic lake systems. How can EPA be sure 20 µg/L is low enough to prevent nutrient impacts to the lakes in this TMDL? We understand that for some lakes where nutrient loadings were less than those calculated for the chlorophyll <i>a</i> target, EPA set numeric targets at existing levels. While this will prevent nutrient impacts from becoming more severe, it may not address existing nutrient problems. We urge EPA to do further analysis to determine if 20 µg/L is an appropriate threshold for chlorophyll <i>a</i>.</p> <p>Also, we question whether it is appropriate to use the NNE BATHTUB model to predict eutrophication for all eight nutrient-impaired lakes that TMDL addresses. Have peer reviewers evaluated the applicability of this model to each of the lakes? In the case of Machado Lake, peer reviewers raised the issue of the applicability of the BATHTUB model. Specifically, one reviewer suggested that the BATHTUB model "may not be a particularly powerful tool for evaluating Machado Lake where the water quality during critical periods is apparently controlled by internal nutrient release and not equilibrium with watershed loads." This same concern may apply to the NNE BATHTUB model used in these TMDLs. Appendix A: Methodology for nutrient TMDL Development describes the NNE BATHTUB Tool as "a simplified method for predicting summer season chlorophyll <i>a</i> lake response to a number of inputs" [emphasis added]. However, Appendix A goes on to mention, "In some lakes, internal phosphorus loading may comprise a significant portion of the total load." (Draft TMDL A-10) Has EPA determined whether this is the case for any of the lakes addressed in this TMDL? Can EPA provide sediment nutrient data for all of the lakes? Another issue raised by a peer reviewer of the Machado Lake TMDL was that the same data used to calibrate the model was also used to validate the model. We understand that there was not enough data to both calibrate and validate the NNE BATHTUB model for these TMDLs. If this is the case, we are concerned the model has not been adequately validated. We believe the EPA should strive to validate all models used to support TMDLs and should include a 10% margin of safety for all nutrient LAs and WLAs to account for such uncertainties.</p> | <p>USEPA believes that using the 20 ug/L chlorophyll <i>a</i> target is appropriate to protect the REC-1 use established for each of the lakes. See Responses 3.10 and 3.11. The specific value of 20 ug/L chlorophyll <i>a</i> is set at a level that the State of California deemed as an appropriate threshold per the <i>Technical Approach to Develop Nutrient Numeric Endpoints for California</i> (Tetrattech, 2006). Additionally, the BATHTUB model does incorporate an internal loading with the sedimentation rates that are calibrated to each lake. Multiple years of sampling and sediment flux studies have not been conducted in these lakes to further calibrate the model and evaluate internal loading. USEPA does not believe peer review of the use of the BATHTUB model for each lake is warranted.</p> |
| 6.6 | <p>EPA should work with the Regional Board to aid in the timely development of monitoring and implementation plans for this TMDL.</p> <p>We are concerned that there is no monitoring or implementation plan with milestones and deadlines associated with the Draft TMDLs. This is of particular concern in the case of load allocations, as LAs for TMDLs such as trash are typically implemented through trash reduction programs conducted periodically. The Proposed TMDL states "The Regional Board has responsibility to implement these TMDLs and incorporate them into permits. They may choose to develop implementation plans in a separate document(s) in the future." (Draft TMDL 1-4). How soon does EPA expect the implementation plan for these TMDLs</p> | <p>USEPA has provided monitoring and implementation recommendations; however the primary responsibility for implementation of these TMDLs rests with the State of California. See generally, 40 CFR 130.7, <i>City of Arcadia v. U.S. EPA</i>, 411 F.3d 1103 (9th Cir. 2005) (re State's responsibility), and <i>Pronsolino v. Nastri</i>, 291 F.3d 1123 (9th Cir. 2002) (same).</p> |

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| | <p>to be developed? An implementation plan still has not been developed by the Regional Board as a follow up to the Malibu Creek Watershed Nutrient TMDL—more than five years after EPA TMDL development. Implementation plans are crucial in ensuring that dischargers are on-track for ultimate compliance with the waste load allocations. Thus, the EPA should actively encourage the timely development of implementation plans and work with the Regional Board to develop them. These implementation plans should set a timeline with enforceable water quality milestones.</p> <p>In addition, the EPA does not provide specific monitoring recommendations for the Draft TMDLs. We agree with the general components EPA recommends to be a part of the monitoring program, but again, when will the development of a monitoring plan take place? A comprehensive monitoring plan is essential to assess progress towards meeting the LAs and WLAs and ultimate compliance with these allocations. Elements such as the specific monitoring locations and frequency of monitoring must be specified in order to ensure ultimate compliance with the TMDLs. Thus, we urge the EPA to work with the Regional Board to develop a comprehensive monitoring plan in the very near future.</p> | |
| 6.7 | <p>EPA should provide more detailed monitoring recommendations for fish tissue monitoring.</p> <p>We are concerned by the lack of detail provided in the monitoring recommendations for mercury and OC pesticides for fish in this TMDL. Insufficient detail on monitoring protocols could put human health at risk. It is important for EPA to specify which types of fish species are tested during compliance monitoring. For lakes impaired for OC pesticides and PCBs, bottom-feeding fish should be chosen since they are most susceptible to acquire OC pesticides and PCBs from sediment. For lakes with mercury impairments, fish in higher trophic levels should be targeted since they are most prone to bioaccumulate mercury. EPA should require monitoring of both bottom-feeding and mid-water column feeding fish in Puddingstone Reservoir. Puddingstone is the only lake included in this TMDL that is impaired for both mercury and OC pesticides and PCBs.</p> | <p>USEPA has revised the chlordane, DDT, dieldrin and PCBs TMDLs to include recommendations for specific species to be used for compliance monitoring. The fish species selected reflect the species with the highest rate of accumulation found in each lake. This is usually carp, however, in Peck Road Park Lake no carp have ever been found so largemouth bass are used as the target species. See also, Response 6.8.</p> |
| 6.8 | <p>EPA should also take into account frequency of consumption of different species by developing targets for fish that are caught and eaten the most frequently. While largemouth bass may have the highest levels of mercury, they may not be the fish that poses the largest risk to human health if they are not the most abundantly caught and eaten fish. Fish with lower levels of contamination that are consumed more often could pose the same or greater risk to human health. Hence, staff should review surveys related to fish capture for these lakes to ensure fish that are consumed and pose the highest risk to human health are monitored. In addition, EPA should recommend that fish tissue testing is not limited to fish fillets, and should instead test whole fish, as certain parts of the fish are prone to accumulate different levels of contamination and many anglers and other consumers eat the entire fish.</p> | <p>USEPA used OEHHA FCGs as targets in these TMDLs. These goals are based on a fish consumption rate of 32g/day of skin off fillets which exceeds the typical consumption rate of sport fishers in California. Additionally, in these TMDLs the sportfish species that has the greatest rate of accumulation of a particular pollutant in each particular lake was used to establish the target; accordingly, USEPA expects that any non-target species taken from the lake for consumption will have lower concentrations of pollutants.</p> |
| 7 | Los Angeles County, Department of Public Works | |
| 7.1 | <p>The use of biota-sediment accumulation factor to set sediment targets is inappropriate</p> <p>The proposed TMDLs use a biota-sediment accumulation factor (BSAF) to establish exceedingly stringent sediment targets intended to address the accumulation and biomagnification of OC pesticides and PCBs in the aquatic food chain. According to the TMDLs, the BSAF is necessary because, although the sediment is not impaired relative to the conventional sediment target or "threshold effects concentration" (TEC), the TEC is designed to protect benthic dwelling organisms without consideration for the potential for bioaccumulation in aquatic organisms. However, based on our understanding, the BSAF approach is not valid because it grossly simplifies the complex transfer and bioaccumulation mechanisms of organic compounds into a mere ratio of actual and desired concentrations in fish tissue and in sediment. It also assumes a linear relationship between the contaminant concentrations in bottom-feeding organisms and those in predator fish once the contaminants enter the food chain. Further, the BSAF calculations were done based on very limited fish tissue data; in most cases, only one or two sampling events were conducted during a one-month time period.</p> <p>Therefore, the BSAF approach used is insufficient to substantiate the TMDLs' linkage analyses with respect to OC pesticides and PCBs. A thorough scientific study should be conducted to better understand the transfer and accumulation mechanisms of OC pesticides and PCBs in order to establish sediment targets specifically to address bioaccumulation. It is also necessary</p> | <p>USEPA does not agree that the use of biota-sediment accumulation factors (BSAFs) to develop TMDLs targets is "not valid", or that using BSAFs to develop these TMDLs makes the targets inappropriate. BSAF values were derived from measurements of contaminants in sediment and fish from hundreds of sites in the United States which were compiled and analyzed by Wong et al. (2001) in "National-scale, field-based evaluations of the biota-sediment accumulation factor model" Environmental Science and Technology. 35: 1709-1715.</p> <p>California identified the Peck Road Park Lake and Puddingstone Reservoir as water quality limited</p> |

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| | <p>to assess whether technology exists to meet those targets. In the interim, due to the inadequate linkage analysis, we request that the following water body pollutant combinations be removed from the proposed TMDLs.</p> <ul style="list-style-type: none"> • Peck Road Park Lake — PCB (water and sediment are not impaired) • Peck Road Park Lake — Chlordane (water and sediment are not impaired) • Peck Road Park Lake — DDT (water and sediment not impaired) • Peck Road Park Lake — Dieldrin (water and sediment are not impaired) • Puddingstone Reservoir — PCBs (water and sediment are not impaired) • Puddingstone Reservoir — Chlordane (water and sediment are not impaired) • Puddingstone Reservoir — DDT (water and fish tissue are not impaired) | <p>segments still requiring a TMDL in the CWA sec. 303(d) list approved by the State in 2010. The amended consent decree in <i>Heal the Bay, Inc. v. Browner</i>, No. C98-4825 SBA (N.D. CA) requires that TMDLs be developed for them by March 2013. During TMDL development, USEPA analyzed the available data, and confirmed that the lake and reservoir are impaired and that the subject TMDLs are required to address the impairments.</p> |
| 7.2 | <p>The jurisdictional map and the associated TMDLs for the Peck Road Park Lake incorrectly identifies the National Forest Service area as unincorporated County area</p> <p>Much of the area identified as Los Angeles County in the Peck Road Park Lake subdrainage area is under the jurisdiction of the National Forest Service (NFS). The County has no control over discharges from the NFS land. The jurisdictional map and the TMDLs for the Peck Road Park Lake should be revised to accurately reflect the actual responsible parties as shown in the enclosed Figure 1. Similarly, a small portion of the Puddingstone Reservoir Watershed lies within the NFS jurisdiction and should be corrected accordingly as shown in the enclosed Figure 2.</p> | <p>USEPA has revised the TMDLs to reflect National Forest Service land ownership in the watershed.</p> |
| 7.3 | <p>Developing a TMDL where there are findings of nonimpairment is inappropriate</p> <p>As in the case of metals, EPA staff's analysis available monitoring data indicates an absence of nutrient impairments in two lakes. Specifically:</p> <ul style="list-style-type: none"> • Peck Road Park Lake, the Staff Report states that <i>"It does not appear, based on these data, that excessive nutrient loading is causing an impairment. It is unlikely that the source of the odor reported at Peck Road Park Lake is due to elevated nutrient and algal biomass levels. They are likely associated with the trash impairment addressed in section 4.8"</i> (see page 4-13 of the Staff Report) • Santa Fe Dam Park Lake, the Staff Report states that <i>"...neither excessive nutrient loading nor chlorination at the lake appear to be causing the elevated pH values that resulted in this listing. ... The elevated pH levels in the lake are likely due to natural conditions. ... Based on these multiple lines of evidence, Santa Fe Dam Park Lake is attaining beneficial uses and meets pH water quality standards"</i> (see page 11-9 of the Staff Report). <p>Unlike the metals, EPA staff chose to develop a nutrient TMDL for these lakes based on existing conditions as an antidegradation measure. EPA is under no obligation to develop a TMDL when information exists to substantiate a finding of nonimpairment. Based on the above, there is sufficient information in the Staff Report to substantiate a finding of nonimpairment for nutrients for the above lakes and, thus, nullify the need for nutrient TMDLs for these lakes.</p> | <p>In August 2010, California identified Peck Road Park Lake and Santa Fe Dam Park Lake as impaired due to organic enrichment/low dissolved oxygen, odor and pH, as well as for other pollutants, and determined that a TMDL was still needed to address those impairments. USEPA does not agree that it should, at this time, find that the lakes are no longer impaired due to nutrients, or that a TMDL to address that impairment is unwarranted.</p> |
| 7.4 | <p>EPA does not have jurisdiction over the lakes and, therefore, has no authority to adopt TMDLs for them</p> <p>EPA has jurisdiction to adopt TMDLs only for waters of the United States. The lakes that are the subject of these TMDLs are all intrastate, isolated water bodies.</p> <p>They are not waters of the United States that fall under the Clean Water Act. EPA, therefore, has no authority to adopt TMDLs for these water bodies. See <i>Rapanos v. United States</i>, 547 U.S. 715 (2006); <i>Solid Waste Agency v. Army Corp. of Engineers</i>, 531 U.S. 159 (2001).</p> <p>This is particularly true with respect to the Santa Fe Dam Park Lake. The lake is a man-made lake with negligible drainage area and/or runoff contribution from the watershed, which is mostly open space (Figure 11-5 of the draft TMDL). The rainfall-generated runoff contribution to the lake from the surrounding area accounts for only 2 percent of the annual water input to the lake (Table 11-4 of the draft TMDL). The lake's main sources of water are groundwater (65 percent), potable water (27 percent), and direct precipitation (5 percent). The lake is a fully enclosed lake, hydrologically disconnected from the surrounding stream system. It has no outflow.</p> | <p>USEPA does not agree that it should withdraw the proposed TMDLs for the nine (9) lakes in the Los Angeles Region. California identified the waters as water quality limited segments still requiring a TMDL in the CWA sec. 303(d) list approved by the State in 2010. The State identified these Los Angeles area lakes as impaired by a range of pollutants, including algae, ammonia, chlordane, copper, DDT, eutrophication, lead, organic enrichment/low dissolved oxygen, mercury, odor, PCBs, pH and/or trash. See State Water Resources Control Board Resolution No. 2010-0040; 2010 Integrated Report, Clean Water Act</p> |

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| | <p>The other lakes are also not waters of the United States. Peck Road Lake Park was originally a gravel pit. It was converted to a lake and park in 1975. Visitors are not allowed to bathe or swim in the lake. The Legg Lakes are also man-made. Legg Lake was constructed in the 1950s, and Center and North Lakes were built in 1967. Groundwater is pumped into Legg Lake to supplement its supply.</p> <p>Lake Sherwood is a private lake created in 1904 by a dam. Puddingstone Reservoir is located in a flood control basin. It is also created by a dam. None of these lakes are connected directly to any navigable water. Without a finding, supported by the evidence, that these lakes are waters of the United States, EPA has no authority to adopt these TMDLs.</p> <p>EPA should, therefore, withdraw its proposed TMDLs for these water bodies.</p> | <p>Section 303(d) List / 305(b) Report, Category 5. The amended consent decree in <i>Heal the Bay, Inc. v. Browner</i>, No. C98-4825 SBA (N.D. CA) requires that TMDLs be developed for them by March 2013. As a result, USEPA is establishing TMDLs for these nine lakes to the extent that the lakes at issue are "waters of the United States." USEPA is not making a jurisdictional determination for any water body as part of this action to establish TMDLs. If any of the nine lakes is found not to be a "water of the United States," then the TMDL for that lake would not be applicable for CWA purposes.</p> |
| 7.5 | <p>The County of Los Angeles should not be solely responsible for the in-lake bottom sediment load allocations</p> <p>The OC pesticides and PCB TMDLs for the Peck Road Park Lake and Puddingstone Reservoir name the County as the only responsible jurisdiction for meeting the load allocations for the in-lake sediments (see Tables 4-25, 4-33, 4-41, 10-20, 10-28, and 10-36). It should be understood that the existing sediments in these lakes originated from the upstream watersheds and were deposited into the lakes over time. Given that the land in the watersheds is not entirely under the jurisdiction of the County, the County should not be solely responsible for meeting the load allocations for the sediments that currently reside at the bottom of these lakes. All jurisdictions within the boundary of the lake drainage area should be responsible for these legacy sediments. The County should only be responsible for its share in proportion to the unincorporated County area within the watershed. We request that the TMDLs be revised to accurately reflect the responsible parties for the existing lake-bottom sediments.</p> | <p>USEPA does not agree that it incorrectly allocated the load allocations from bottom sediments in Peck Road Park Lake and Puddingstone Reservoir. USEPA identified the County of Los Angeles as the responsible jurisdiction for the load allocations allotted to "lake bottom sediment" in those TMDLs. USEPA did so because the County owns and operates the waterbodies in which the sediments exist. New sediment delivery to the lake from upstream will be governed by the newly established WLAs and LAs. USEPA expects that, if the upstream sources meet the WLAs and LAs assigned to them, the lake bottom sediment allocation will also be attained. The County is encouraged to work with upstream responsible jurisdictions to attain the WLAs and LAs.</p> |
| 7.6 | <p>The Nutrient TMDLs contradict the State's Recycle Water Policy</p> <p>Due to the water supply shortage in California, the State of California is a strong proponent of recycled water use. Recycled water is a potentially significant source of water for irrigating parks and lawns during most of the dry-weather periods. The total nitrogen and total phosphorus in recycled water is often on the order of 8 mg/L and 1 mg/L, respectively. The total nitrogen and total phosphorus targets set for most of the lakes with proposed Nutrient TMDLs are on the order of 0.4-0.8 mg/L and 0.04-0.08 mg/L, respectively. This condition discourages and/or contradicts the State's recycled water use policy. We recommend that the proposed TMDLs recognize and acknowledge the negative impact of preventing the use of recycled water in our region.</p> | <p>See Response 3.12</p> |
| 7.7 | <p>The numeric targets for PCBs and OC Pesticides should not be set below the detection and/or reporting limits of the available technology</p> <p>The numeric targets set for the pesticides and PCBs in the TMDL are several orders of magnitude lower than the detection limits or reporting limits of currently available analytical methods, thus, making compliance assessment for the TMDL impossible. Therefore, until advances in technology allow the detection of pesticides and PCBs at lower limits, the targets for these pollutants should be set to levels at or above the minimum detection level of currently available technology for these pollutants.</p> | <p>USEPA disagrees. As indicated in the TMDLs addressing organochlorine pesticides and PCBs: the TMDLs include numeric targets based on the numeric and narrative water quality objectives stated in the Basin Plan as well as fish tissue guidelines and sediment quality guidelines; and the targets were used to calculate the TMDLs' loads and wasteload allocations. Appendix H provides additional details on the organochlorine pesticides and PCB targets. USEPA understands the comment to contend that the</p> |

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| | | <p>targets should be relaxed to a level equal to or greater than a detection and/or reporting limit. USEPA believes that relaxing a target to that level is inappropriate where the resultant target would then be too lenient to meet the Basin Plan's objectives; and USEPA concludes that relaxing the targets as sought by the comment is inappropriate for that reason in this case. USEPA's reasoning is similar to that described in its rulemaking establishing the numeric criteria for priority toxic pollutants for California: "EPA is aware that the criteria promulgated today for some of the priority toxic pollutants are at concentrations less than EPA's current analytical detection limits. Analytical detection limits have never been an acceptable basis for setting water quality criteria since they are not related to actual environmental impacts. The environmental impact of a pollutant is based on a scientific determination, not a measuring technique which is subject to change. Setting the criteria at levels that reflect adequate protection tends to be a forcing mechanism to improve analytical detection methods. As the methods improve, limits based on the actual criteria necessary to protect aquatic life and human health become measurable. The Agency does not believe it is appropriate to promulgate criteria that are not sufficiently protective." 65 FR 31682, 31701 (May 18, 2000).</p> <p>USEPA further disagrees that, if a numeric target is established at a level lower than a detection limit or reporting limit, assessing compliance with the TMDL is impossible. Monitoring that detects concentrations of organochlorine pesticides or PCBs above the limits to which the comment refers would be evidence that the TMDL is not being met. The Regional Board may choose to use currently available method detection limits to evaluate compliance with the TMDL.</p> |
| 7.8 | <p>Mercury problems should be addressed at the national or regional level through air quality control</p> <p>Unlike other pollutants, the fact that the majority of mercury input to water bodies comes from atmospheric deposition makes it difficult to attain the target of mercury for a given water body by simply focusing on local sources in the water body's drainage area. Available studies on mercury deposition suggest that the majority of mercury deposited in a given watershed comes from outside of the watershed. The problem of mercury contamination in Los Angeles area lakes will not be solved without the State and Federal government taking action to reduce mercury emissions to the atmosphere from industrial and mining plants. Such factors should be taken into consideration in developing mercury TMDLs and solutions should be sought in that regard.</p> | <p>LA County is encouraged to work with State and Federal partners to encourage source reduction of mercury. See Response 7.12.</p> |

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| 7.9 | <p>TMDLs should not be developed for conditional beneficial use designations</p> <p>In the Los Angeles Region Basin Plan, municipal and domestic water supply beneficial use designations with an asterisk are considered conditional designations; they are not final designations. Section 2.1.1 of the Staff Report correctly states that conditional use designations are not recognized under Federal law and are not water quality standards requiring TMDL development at this time.</p> <p>However, this section appears to incorrectly state that only potential beneficial uses marked with an asterisk are conditional when in fact any designation - existing, potential, or intermittent — with an asterisk denotes conditional use designation and, therefore, do not require TMDLs at this time. The proposed TMDL for Puddingstone Lake improperly sets the water column numeric targets for PCBs, chlordane, and DDT based on the criteria for conditional beneficial use designations associated with municipal and domestic water supply use and should be revised.</p> | <p>USEPA does not agree that the Puddingstone TMDL improperly sets the water column numeric targets for PCBs, chlordane and DDT. These TMDLs were not developed to protect conditional potential uses, see memo from Alexis Strauss USEPA to Celeste Cantu State Board, February 15, 2002. These TMDLs do protect for the MUN use in Puddingstone Reservoir that is designated as existing with an asterisk in the Basin Plan. Consultation with the Regional Board confirmed USEPA's understanding that any use marked with an "E*" is interpreted as an existing use by the Regional Board.</p> |
| 7.10 | <p>Most of the TMDL targets are extremely low and unattainable. Technologies to treat the waters to the level of the TMDL targets are currently either unavailable and/or unaffordable. However, the 45-day comment period is insufficient to conduct a comprehensive analysis in this respect. EPA should evaluate the attainability of the targets before setting them.</p> | <p>TMDLs must "be established at levels necessary to attain and maintain the applicable narrative and numerical [water quality standards] with seasonal variations and a margin of safety which takes into account any lack of knowledge concerning the relationship between effluent limitations and water quality" (40 CFR 130.7(c)(1)); and USEPA has sought to do so here. As the Ninth Circuit directs, "A TMDL defines the specified maximum amount of a pollutant which can be discharged or 'loaded' into the waters at issue from all combined sources.' The TMDL <u>'shall be established at a level necessary to implement the applicable water quality standards'</u> § 303(d)(1)(C)." <i>Pronsolino v. Nastri</i>, 291 F.3d 1123, 1127-28 (9th Cir. 2002) (emphasis added). See also: <i>City of Arcadia v. State Water Resources Control Board</i>, 38 Cal. Rptr. 3d 373 (4th Dist. 2006) (addressing contention that TMDL was unattainable). If the County wishes to pursue a use attainability analysis for these waterbodies they may contact the Regional Board. Additionally, USEPA believes that interested parties have had adequate opportunity to comment on the proposed TMDLs, and notes that public comment on the proposed TMDLS has been sought twice.</p> |
| 7.11 | <p>The Waste Load Allocations (WLAs) should be set as mass based as opposed to concentration based for all pollutants. From an implementation perspective, mass-based WLAs make more sense because they encourage source control and infiltration Best Management Practices.</p> | <p>See Response 1.1.</p> |
| 7.12 | <p>The contribution of indirect atmospheric deposition of pollutants of concern should be recognized and acknowledged in the TMDLs. Discussions and allocations related to atmospherically generated pollutants in the TMDLs were limited to direct deposition on the lakes. Pollutant deposition in the watersheds was disregarded and attributed to stormwater sources. EPA should recognize that atmospherically generated sources are beyond the control of stormwater agencies.</p> | <p>USEPA does not agree that pollutant deposition in the watershed was disregarded. USEPA does not agree that the TMDLs inappropriately address loads from pollutants that are atmospherically deposited before they reached the receiving waters. The TMDLs address such pollutants in a manner consistent with</p> |

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| | | <p>the approaches discussed in <i>TMDLs Where Mercury Loadings Are Predominantly From Air Deposition</i> (USEPA Sept. 2008). See particularly pp. 14-15 ("... the TMDL should indicate that the WLA applies to NPDES-permitted stormwater sources."; "...contributions from NPDES-permitted stormwater sources that include contributions from air deposition must be included in and subject to the WLA." Source control may be an effective and appropriate means of addressing the contributions from air deposition that are washed into the MS4s, and municipalities are encouraged to work with the air dischargers in their jurisdictions to address such discharges.</p> |
| 7.13 | <p>Recommendations for special studies should be incorporated into the TMDLs so that necessary studies can be conducted to reduce the uncertainties in the TMDL.</p> | <p>USEPA is not recommending any specific special studies at this time. However, stakeholders are welcome to conduct any further analysis or studies they deem appropriate.</p> |
| 8 | Los Angeles County, Department of Public Works, Flood Control District | |
| 8.1 | <p>The LACFCD also concurs with the comments submitted by the County of Los Angeles and hereby incorporates them by reference.</p> | <p>Comment is noted.</p> |
| 8.2 | <p>TMDLs as proposed may conflict with water conservation efforts The proposed Peck Road Park Lake TMDLs identify the Los Angeles County Department of Public Works as a responsible jurisdiction and further identifies water diversion as an input into Peck Road Park Lake. This water diversion apparently refers to the Santa Fe Diversion system owned and operated by the LACFCD as part of its network of water conservation facilities. Although the proposed TMDLs do not require remedial actions at this time, we are concerned about a waste-load allocation being assigned to a water conservation system, and the potential negative ramifications this assignment may have on the LACFCD's ability to carry out its statutorily mandated mission under the Los Angeles County Flood Control Act. The Los Angeles County Flood Control Act, adopted by the California Legislature in 1915, established the LACFCD to provide for the control and conservation of stormwater. The LACFCD also routinely uses its network of reservoirs, channels, and spreading grounds to store, convey, and percolate imported waters into groundwater aquifers as a service to local water supply agencies. Even when technically feasible, the monetary cost to meet TMDL waste-load allocations may render these services cost prohibitive. A decrease in water-conservation efforts also may trigger other unintended consequences including a lowering of lake water levels to such an extent as to harm the very beneficial uses the TMDLs were intended to protect. Finally, the stormwater and imported water conveyed by the LACFCD's facilities are not owned by the LACFCD, and the LACFCD's facilities do not generate any of the pollutants of concern at issue in the TMDL. Therefore, the proposed TMDLs should not name the Los Angeles County Department of Public Works or the LACFCD as a responsible party.</p> | <p>USEPA does not agree that the TMDLs addressing Peck Road Park Lake incorrectly identifies the Los Angeles County Department of Public Works (LACDPW) as a responsible jurisdiction. Since LACFCD directs discharges of water to Peck Road Park Lake and owns and operates the conveyances of those discharges a WLA assigned to LACFCD for this discharge is warranted. These activities are feasible means of preventing pollutants from discharging to Peck Road Park Lake.</p> |
| 8.3 | <p>Developing a TMDL where there are findings of nonimpairment is Inappropriate In 2009, the LACFCD and the Environmental Protection Agency (EPA) undertook a collaborative sampling program, which led to findings of nonimpairment for copper and lead in Peck Road Park Lake, Santa Fe Dam Park Lake, and Legg Lake. The LACFCD appreciates the EPA's foresight in initiating this sampling program. As in the case of metals, EPA staff analysis of the available monitoring data indicates an absence of nutrient impairments in two lakes. Specifically: For Peck Road Park Lake, the Staff Report states that <i>"It does not appear, based on these data, that excessive nutrient loading is causing an impairment. It is unlikely that the source of the odor reported at Peck Road Park Lake is due to elevated nutrient and algal biomass levels. They are likely associated with the trash impairment addressed in section 4.8"</i> (see page 4-</p> | <p>In August 2010, California identified Peck Road Park Lake and Santa Fe Park Lake as impaired due to several pollutants, and determined that a TMDL was still needed to address those impairments. As indicated in the TMDL, nutrient-related loads were allocated based on existing loading in order to prevent degradation of the lake.</p> |

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| | <p>13 of the Staff Report).</p> <p>For Santa Fe Dam Park Lake, the Staff Report states that "...neither excessive nutrient loading nor chlorination at the lake appear to be causing the elevated pH values that resulted in this listing. ... The elevated pH levels in the lake are likely due to natural conditions. ... Based on these multiple lines of evidence, Santa Fe Dam Park Lake is attaining beneficial uses and meets pH water quality standards" (see page 11-9 of the Staff Report). However, unlike with the metals, EPA staff chose to develop a nutrient TMDL for these lakes based on existing conditions as an antidegradation measure. EPA is under no obligation to develop a TMDL when information exists to substantiate a determination of nonimpairment. Based on the above, there is sufficient information in the Staff Report to substantiate a finding of nonimpairment for nutrients for the above lakes and, thus, nullify the need for nutrient TMDLs for these lakes.</p> | |
| The following comments were received following a January 25th, 2011 public notice | | |
| 9 | City of Claremont | |
| 9.1 | <p>The TMDL for Puddingstone Reservoir does [sic] explain exactly what beneficial uses are being impaired by the pollutants for which a TMDL is needed.</p> <p>Response Sought: Please identify the pollutant or pollutants causing impairment to each of the beneficial uses.</p> | <p>As indicated in the TMDL, the existing beneficial uses for Puddingstone Reservoir include REC1, REC2, WARM, WILD, MUN, GWR, COLD, RARE, and AGR. Descriptions of these uses are listed in Section 2 of the TMDL report. Elevated nutrient levels (nitrogen and phosphorus) are currently impairing REC1/REC2, WARM, COLD, and potentially RARE uses by stimulating algal growth which impacts boating, swimming and aesthetic enjoyment of the lake, and alters dissolved oxygen necessary for fish survival. Concentrations of mercury, chlordane, DDT, PCBs, and dieldrin measured in fish tissue collected from Puddingstone Reservoir indicate that the REC1, WARM, COLD, and potentially RARE uses are currently impaired.</p> |
| 9.2 | <p>It is not clear as to how the WLAs are to be translated into a WQBEL and whether the WQBEL will be expressed in the form BMPs or as a numeric WQBEL, expressed as a surrogate for a pollutant load or concentration.</p> <p>Response Sought:</p> <ul style="list-style-type: none"> • When will USEPA determine what WQBEL is appropriate for the specified WLAs or will that task fall to the Regional Board? • Will a reasonable potential analysis (RPA) be conducted to evaluate the need for a specific type of WQBEL and who will be responsible for completing it. • Will the affected cities have the opportunity to participate in the development of a WQBEL? • Will, the Regional Board be responsible for determining the WQBEL and performing the reasonable potential analysis (RPA)? | <p>USEPA has approved California's program governing the issuance of NPDES permits. USEPA expects that the water quality based effluent limits (WQBELs) and other NPDES permit conditions needed to implement the TMDLs will be established under that program by the Regional Board, using the State-established procedures addressing reasonable potential analysis and public participation.</p> |
| 9.3 | <p>The Puddingstone Reservoir TMDL does not indicate how the City will be expected to comply with WLAs.</p> <p>Response Sought:</p> <ul style="list-style-type: none"> • Will compliance with the WLA be in-stream or at the end-of-pipe and once again through a WQBEL? It is the City's understanding that federal regulations require compliance at the end-of-pipe and through a WQBEL. • Will compliance with the WLA be based on a "collective" or individual city approach? The question is asked because the TMDLs adopted by the Los Angeles Regional Board require collective compliance with the TMDL's WLA (and in the receiving water). If, the WLA is exceeded, as determined by instream monitoring, all of the inputting jurisdictions will be deemed in noncompliance, regardless if a permittee does not exceed the WLA at the end-of pipe. | <p>In each Wasteload Allocation section of the document USEPA has included the compliance point in the footnotes to each load and wasteload allocation table in the TMDLs. In most cases it is at the point of discharge. The nutrient alternative allocations have an in-lake compliance point. However these alternative allocations are optional, so the City may choose to not request them. The Regional Board is ultimately</p> |

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| | | responsible for implementing these TMDLs into NPDES permits. |
| 10 | City of San Dimas | |
| | San Dimas submitted identical comments to those submitted by the City of Claremont. See Comments 9.1, 9.2 and 9.3. | See Responses 9.1, 9.2 and 9.3. |
| 11 | City of South El Monte | |
| | South El Monte submitted identical comments to those submitted by the City of Claremont. See Comments 9.1, 9.2 and 9.3. | See Responses 9.1, 9.2 and 9.3. |
| 12 | City of Thousand Oaks | |
| 12.1 | <p>Inclusion of Point Mugu State Park Addressing Point Mugu State Park separately and assigning the Park a load allocation is appropriate because the California Department of State Parks has authority over that area.</p> | Comment noted |
| 12.2 | <p>Accounting for Open Space Runoff US-EPA proposes to assign mercury waste load allocation to the City and to Ventura County for stormwater discharges into Lake Sherwood because the entities jurisdictional boundaries include areas that drain into Lake Sherwood, and the entities are subject to an MS4 permit. (Los Angeles Area Lakes TMDLs, January 2011 Revised Draft, Section 12, Lake Sherwood TMDLs at p. 12-19; see Order No. R4-2010-0108.) However, as the Lake Sherwood TMDL readily admits, "none of the MS4 permittees maintains a storm drain system in the Lake Sherwood watershed." (Lake Sherwood TMDL at p. 12-3.) Further, the MS4 permit that applies to the City of Thousand Oaks and Ventura County does not apply to storm drains that are not part of the MS4 system within the co-permittee's boundaries. Specifically, the county-wide MS4 permit applies to "... all areas within each co-permittee's boundaries that drain into the MS4." (Order No. R4-2010-0108 at p. 13.) MS4 is defined to mean "a conveyance or system of conveyances owned or operated by a state, city, town, borough, county ... that discharges into waters of the United States." (Order No. R4-2010-0108 at p. 109.) As stated in the TMDL, the storm drain system in question is not part of the storm drain system owned or operated by the City or County, and, therefore, is not subject to the MS4 permit. Because the storm drain system at Lake Sherwood is not subject to the MS4 permit, and to our knowledge is not subject to the Phase II general NPDES permit requirements. it is considered a nonpoint source discharge of pollution.</p> <p>A review of the Clean Water Act (CWA), the federal regulations, and applicable guidance indicates that US-EPA is to assign load allocations - not wasteload allocations - to nonpoint source discharges in TMDLs. The federal regulations define a wasteload allocation as that "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)) Further demonstrating that wasteload allocations are appropriate only for point sources, the definition states that wasteload allocations are a type of water quality based effluent limitation (WOBEL). (40 C.F.R. § 130.2(h).) WOBELs are used in the context of the NPDES program, which applies only to point sources. (40 C.F.R. §122.44(d) In addition, the federal regulations define a load allocation as that "portion of a receiving water's loading capacity that is attributed either to one of its existing or future nonpoint sources of pollution or to natural background sources." (40 C.F.R. §130.2(g)) Accordingly, federal law directs US-EPA and other TMDL writers to assign wasteload allocations only to point sources (which typically are regulated by an NPDES permit) and load allocations only to non point sources. Recent non-binding US-EPA guidance also expresses US-EPA's expectation that "TMDL authorities will make separate aggregate allocations to NPDES-regulated storm water discharges (in the form of wasteload allocations) and unregulated storm water (in the form of load allocations)." (Memorandum from J.A. Hanlon, Office of Wastewater Management, US-EPA and D. Keehner, Office of Wetlands, Oceans and Watersheds, US-EPA to Water Management Division Directors, Regions 1-10 Re: Revisions to the November 22, 2002, Memorandum "Establishing Total Maximum Daily Load (TMDL) Waste load Allocations (WLAs) for Storm Water Sources and NPDES Permit Requirements Based on Those WLAs" (Nov. 12,2010) at p. 4.) That is, a TMDL may prescribe wasteload allocations for stormwater discharges regulated by an NPDES permit and load allocations for stormwater discharges not covered by an NPDES permit. (See id. at p.6.) The US-EPA guidance suggests that where a stormwater source addressed in a load allocation is not regulated by an NPDES permit but might become so</p> | <p>After discussion with representatives of Ventura County, Sherwood Valley Homeowners Association (SVHOA) and Sherwood Development Corporation, USEPA understands that the stormdrains at the base of the Northern, Western, Hidden Valley and Near Lake Developed subwatersheds are not part of Ventura County's Municipal Separate Storm Sewer System (MS4) but are instead owned primarily by the SVHOA. USEPA revised the allocations included in the proposed TMDLs for Lake Sherwood. The final TMDLs establish wasteload allocations for loads that ultimately reach Lake Sherwood through a point source (including some loads due to runoff from areas under Thousand Oaks' jurisdiction). At this time, given the current development patterns within Thousand Oaks' portion of the watershed, USEPA does not anticipate that the wasteload allocations assigned to Thousand Oaks would be implemented through the MS4 permit. However, stormwater runoff from Thousand Oaks, which ultimately discharges through a point source to Lake Sherwood, may be regulated under other Clean Water Act authority (e.g. 40 CFR 122.26(a)(9)(i)(C)).</p> |

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| | <p>regulated, the TMDL explain that the allocation as a load allocation is contingent on the source remaining unpermitted and would be deemed a wasteload allocation if later covered by an NPDES permit. (Ibid.)</p> <p>As non point source discharges of pollution, open space runoff from areas in the City's jurisdiction in the Lake Sherwood watershed should be assigned load allocations.</p> <p>Requested Actions: (1) In Table 12-7, change the inputs for Thousand Oaks from "MS4 Stormwater" to "Open Space Runoff"; (2) Delete all wasteload allocations for Thousand Oaks MS4 Stormwater in Table 12-9, and change to load allocations for Open Space Runoff in Table 12-10.</p> | |
| 12.3 | <p>Alternative Allocations</p> <p>In recognition of the substantial uncertainty in the linkage analysis and multiple implicit margins of safety in the Echo Park Lake TMDLs for Total PCBs, Chlordane, and Dieldrin, "Alternative Wasteload Allocations if Fish Tissue Targets Are Met" are provided. The alternative wasteload allocations will apply, if:</p> <ol style="list-style-type: none"> 1. The responsible jurisdictions submit to US-EPA and the Regional Board material describing how the fish tissue target has been met for the preceding three or more years; and 2. US-EPA does not object to the Regional Board's determination within 60 days of receiving notice of it. <p>The same reasoning should apply to the mercury TMDL for Lake Sherwood and we request that this approach also be applied to the Lake Sherwood TMDL for consistency. Should the fish tissue targets be met without the corresponding allocations being met due to the uncertainties associated with an assumption of a linear relationship between water column reductions and fish tissue reductions, alternative allocations should apply. In this case, the California Toxics Rule (CTR) total mercury human health criteria are the appropriate alternative allocations and should apply.</p> <p>Requested Action: Consistent with Echo Park Lake TMDLs for Total PCBs, Chlordane, and Dieldrin, add an alternative allocation that would apply if the fish tissue targets are attained and the allocations are not attained. Base the alternative allocations on CTR criteria.</p> | <p>USEPA has not set alternative allocations in the mercury TMDLs to ensure attainment of mercury standards in down stream waters. In the Lake Sherwood watershed in particular, Triunfo Canyon Creek downstream was identified as impaired by California in August of 2010.</p> |
| 12.4 | <p>Methylmercury Sources</p> <p>Section 12.2.5 Linkage Analysis states "rapid burial tends to depress the relative importance of regeneration of methylmercury (MeHg) from lake sediments." Appendix C goes on to reference a report by Tetra Tech (2001) as concluding that "71 percent of the MeHg present in the water column (of McPhee Reservoir, CO) was estimated to derive from watershed inflows, while much of the MeHg created in lake sediment was apparently buried." In other words, 29 percent of the methylmercury load (from in-lake sediment flux at a less eutrophic lake in Colorado) was excluded in that TMDL. In Lake Sherwood's drier, warmer, more eutrophic conditions, in-lake sediment flux is likely an even greater percentage of the extant MeHg source. Furthermore, even if the dominant load of methylmercury were from tributaries, that load occurs episodically during the wet season. The sediment flux occurs throughout the year, exposing organisms to methylmercury in all seasons. As a result, reductions of total mercury loads from the tributaries may not result in a reduction in fish tissue concentrations without corresponding action to address the sediment flux. Lake management actions should be implemented to ensure that sediment flux is addressed by the TMDL.</p> <p>Requested Actions: (1) Account for the potentially significant sediment flux of methylmercury from the stream and lake sediments in the linkage analysis; (2) Allocate methylmercury load reductions to the lake managers.</p> | <p>The potential for methylation within Lake Sherwood is acknowledged. However, as indicated in the TMDL, USEPA concludes that the majority of loading originates from upland areas and is delivered from tributaries and storm drains in either the water column or sediments. Due to the rate of sediment delivery in the system, USEPA finds it appropriate to model mercury delivery to the lake with watershed loadings. Additionally USEPA notes that lake managers have been assigned wasteload allocations for their watershed loadings which should encourage upstream dischargers and lake managers to work together towards lake management practices that reduce methylation. In the last few years, lake managers have increased oxygenation to the lake and been addressing the nutrient impairment of the lake which should also reduce methylation</p> |
| 13 | City of LaVerne | |
| 13.1 | <p>Multiple Constituents and Water Bodies addressed in one TMDL The City of La Verne is concerned that compiling so many locations and so many different pollutants of concern into one document make it very difficult to focus on any one issue. La Verne is a small community and does not have the resources or staff to give such an important document the appropriate review when done in such a throng approach. Not only does the LA Area Lakes TMDL contain almost a thousand pages, it contains 14 Sections and 8 Appendices. The TMDL for Puddingstone alone as currently drafted attempts to address six</p> | <p>In light of the similarities of the lakes and their impairments, USEPA believes that establishing the TMDLs at one time will be more cost effective (both during the TMDLs' development as well during their implementation) than establishing the TMDLs</p> |

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| | <p>impairments at one time. If the current LA River Metals TMDL is any indicator of the complexity an impairment has on a water body, taking on six at one time is impossible. If these impairments do exist and are important to correct, the City would request that each be addressed separately and at different times instead of all at once. This will allow a true attempt at reaching any corrective actions that might be necessary from applicable parties.</p> | <p>piecemeal. . For example reducing sediment loading to a lake will likely reduce loading of nutrients, mercury, dieldrin, DDT, chlordane and PCBs associated with that sediment, thereby addressing multiple impairments at once.</p> |
| 13.2 | <p>Numeric Limits Unachievable - The numeric limits proposed in this TMDL are not based on science that will allow success. Many of the impairments are a direct result of legacy historical activities and are no longer in production or being used. They are simply pollutants that are in the environment and are not easily remedied or removed. The City requests that the EPA reconsider including impairments such as DDT, Chlordane, and Dieldrin into the TMDL as their removal from current water bodies is next to impractical when considering economics and danger to the surrounding environment during removal process.</p> | <p>TMDLs must "be established at levels necessary to attain and maintain the applicable narrative and numerical [water quality standards] with seasonal variations and a margin of safety which takes into account any lack of knowledge concerning the relationship between effluent limitations and water quality" (40 CFR 130.7(c)(1)); and USEPA has sought to do so here. See Response 7.10.</p> |
| 13.3 | <p>Economic Analysis - The City of La Verne is also very concerned with the basic costs of implementing the TMDL. In a perfect economy and during the most prosperous of economic times, agencies would not be able to afford implementing the TMDL as proposed. The City of La Verne, like a majority of cities and agencies, is undergoing severe financial difficulties with multimillion dollar budget shortfalls. There are simply no funds available to implement the TMDL. Given the potentially enormous costs of implementing the TMDL, the City requests that the EPA do a benefits cost analysis as required under Water Code Section 13241(d).</p> | <p>USEPA believes that additional analysis of the costs associated with the establishment of the subject TMDLs is not warranted. USEPA notes that California Water Code Section 13241 is inapplicable for at least two reasons. Section 13241 identifies "[f]actors to be considered by a regional board in establishing water quality objectives" [emphasis added]. In this case, USEPA is establishing the TMDLs, not the Regional Board. In addition, USEPA understands that the State has concluded that Section 13241 is inapplicable to State-established TMDLs as well. See, e.g., California Regional Water Quality Control Board, Los Angeles Region, Resolution No. R11-008 (May 5, 2011) ("Neither TMDLs nor their targets or other components are water quality objectives, and thus their establishment does not implicate California Water Code section 13241."). See also, Response 13.2.</p> |
| 13.4 | <p>Nutrient WLA's Must be Met in Lake - In regards to Puddingstone Nutrient levels, why would the City be responsible for meeting WLA's in the lake if it is not contributing impaired water or causing a direct increase in nutrient levels in the water body? The City requests that EPA reconsider this issue and instead review an end of pipe form of compliance mechanism. There are too many numerous biological occurrences that can happen in a water body such as Puddingstone that can contribute to a nutrient exceedance (i.e. bird populations) that is entirely out of the City's control.</p> | <p>USEPA believes that the TMDL adequately explains the rationale for establishing a wasteload allocation to address the nutrient load reaching Puddingstone Reservoir though stormwater from the City of La Verne. In sum, USEPA estimates that the current annual nitrogen and phosphorous loading to the reservoir from areas in the city's jurisdiction is over 25,000 and 4,000 pounds, respectively, and that reductions of those loadings are appropriate to assure that the water quality standards applicable to the reservoir are attained as required by 40 CFR 130.7(c)(1)). See, in particular, TMDL, secs.10.1 and 10.2. USEPA notes that the wasteload allocations to which the comment refers are concentration-based, and are to be met at the point of discharge.</p> |

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| 14 | City of Monrovia | |
| 14.1 | <p>EPA Item No. 2: Inclusion of Angeles National Forest as a responsible jurisdiction in all Peck Road Park Lake TMDLs: The City concurs that the Angeles National Forest is an appropriate responsible entity to add to the Peck Road Park Lake TMDLs. The City adds that some of the TMDLs for Peck Road Park Lake ("Peck Lake") focus on nutrients that are peculiar to agriculture or non-urban areas, such as Angeles National Forest. In particular, this is true of the nitrogen/phosphorus TMDL. To this extent, the City urges that EPA focus its review and enforcement efforts on likely sources of such compounds, rather than upon the largely urban area of Monrovia.</p> | Comment noted. |
| 14.2 | <p>EPA Item No. 5: Updated Wasteload and load allocation for Peck Road Park Lake nutrient TMDLs: The nutrient TMDL for Peck Lake is difficult to understand, let alone monitor for and comply with. The City notes that EPA's updated 2010 water quality information suggests that the nutrient TMDL is a TMDL in search of a problem that does not exist at Peck Lake. As to phosphorus, EPA's revised draft TMDL states that a September 30, 2010 sampling determined that there was total phosphorus from 0.02 mg-P/L to 0.04 mg-P/L in the "mid-lake" sampling location. This level is well below the proposed target concentrations in the lake as proposed on p.4-13 of the draft TMDL of 0.076 mg-P/L. Thus, the City must question why EPA requires that the City (together with other responsible jurisdictions) spend precious time, money, and effort monitoring and sampling for a compound that does not currently propose any type of environmental threat or impairment. As to nitrogen, EPA's report of its September 30, 2010 mid-lake site sampling shows that nitrites ranging from 0.041 to 0.043 mg-N/L and that nitrates were below the analytical detection limit. Again, this reported level is far below EPA's target concentration proposed on p. 4-13 of the draft TMDL of 0.76 mg-N/L, by at least an order of magnitude. As EPA's own draft TMDL put it: "It does not appear, based upon these data, that excessive nutrient loading is causing an impairment." (Draft TMDL at p.4-15). If this is the case, then why does EPA impose a TMDL, require monitoring by the City (and others) and insist upon any particular compliance period? The TMDL is a solution that fixes a non-existent problem based upon EPA's own recent water sampling results.</p> | In August 2010, California identified Peck Road Park Lake as impaired due to organic enrichment/low dissolved oxygen and odor, as well as for other pollutants, and determined that a TMDL was still needed to address those impairments. USEPA does not agree that it should, at this time, find this lake to be no longer impaired due to nutrients, or that a TMDL to address that impairment is unwarranted. |
| 14.3 | <p>EPA Item No. 6: Revision of nutrient TMDLs to include a compliance period of three years: As note [sic] in response to EPA item No. 5, supra, the City does not believe that any nutrient TMDL is appropriate as to it [sic] because there is currently no showing of nutrient impairment in Peck Lake. In addition, the City observes that the nutrient TMDLs for nitrogen and phosphorous are not true "Total Maximum Daily Loads" as required by EPA Guidance and by the D.C. Circuit decision in <i>Friends of the Earth, Inc. v. EPA</i>, 446 F.3d 140 (D.C. Cir. 2006). EPA guidance indicates that TMDLs are to be phrased in terms of daily limits whenever possible. As Headquarters guidance put it: "EPA recommends that all future TMDLs and associated load allocations and wasteload allocations be expressed in terms of <i>daily</i> time increments." (EPA Guidance Memorandum from Mr. Grumbles to Water Division Directors Nov. 15, 2006 at p.1 (emphasis added). The City, however, observes that EPA Region 9's approach in this case does not provide clear daily limits, but rather provides cumbersome 'add it up' type of wasteload allocations. EPA first sets forth "wasteload allocations" expressed in terms of total phosphorus and total nitrogen on a per year time period, with a footnote indicating that compliance will be measured on a three-year average. EPA then sets forth in Section 4.2.6.5 a "daily load expression" in purported compliance with a TMDL. But this discussion simply provides something called a 'daily maximum load associated with wet weather runoff', and then repeats a statement that: "The WLA (expressed on a pounds per year with compliance measured on a three-year average) presented above are annual loading caps that cannot be exceeded." The later statement seems to imply that there is in fact no 'daily' TMDL standard, but only an annual standard contained in the WLA. Moreover, EPA's "expression" of a daily TMDL in terms of a daily maximum load associated with wet weather runoff is hard to reconcile in a basin such as Los Angeles, which experiences mostly dry weather on a daily basis, not wet weather.</p> | See Response 14.2. In addition, USEPA does not agree that the TMDLs addressing the nutrient-related impairments of Peck Road Park Lake fail to establish total maximum daily loads as required by <i>Friends of the Earth, Inc. v. EPA</i> , 446 F.3d 140 (D.C. Cir 2006) and USEPA guidance. See, in particular, TMDL, secs. 4.2.6.5., 4.4.6.5., 4.5.6.5, 4.6.6.5., and 4.7.6.5 The allocations established in the TMDLs include daily maximum and non daily maximum expressions. As indicated in the USEPA guidance to which the comment refers: "TMDL submissions may include alternative, non-daily pollutant load expressions in order to facilitate implementation of the applicable water quality standards." (USEPA, Memorandum "Establishing TMDL "Daily" Loads in Light of the Decision by the US Court of Appeals for the DC Circuit in <i>Friends of the Earth, Inc. v. EPA, et al.</i> , No.05-5015 (April 25, 2006) and implications for NPDES Permits" from Benjamin H Grumbles to Water Division Directors, Nov 15, 2006, page 2). |
| 14.4 | Finally, in reviewing monitoring recommendations and requirements, EPA confuses the matter further. It sets forth what it terms "targeted concentrations of total phosphorus and total nitrogen" that "may be 0.62 mg-P/L and 4.04 mg-N/L at the outlet of the eastern subwatershed and 0.54 mg-P/L and 3.85 mg-N/L at the outlet of the western subwatershed." While these | USEPA does not agree that the TMDLs addressing the nutrient-related impairments of Peck Road Park Lake fail to establish clear daily loads in violation of the |

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| | <p>'targeted concentrations' are not stated as actual values (only what the values "may be"), they presumably are values that a responsible jurisdiction may need to target. But the City, which is part of the eastern subwatershed, will still need to calculate its individual share of the 'targeted concentration', because the suggested values provided by EPA at p. 4-92- 4-93 are values for the entire subwatershed.</p> <p>In short, there is simply no single table that informs or advises the City what the TMDL for phosphorus and nitrogen is, expressed on a daily bases. Instead, the City must try and interpret between a Table 4-8 containing 'annual' WLA values that are measured on a three-year average; a subwatershed "target concentration" used for monitoring; or a textual discussion of how the phosphorous and nitrogen levels are "expressed" as a "daily maximum load associated with wet weather runoff" that appears to merge all three subwatersheds into a single 'maximum load, and which further concludes that the annual WLAs must not be exceeded.</p> <p>Thus, the revised nutrient TMDLs attached to the January 2011 notice letter fail to set forth clear daily TMDLs and violate the express terms of the Clean Water Act.</p> | CWA. See Response 14.3. |
| 14.5 | <p>EPA Item No. 7: Revision of nutrient TMDLs that include required reductions to include alternative wasteload allocations to be assigned as an in-lake concentration not to exceed 0.1/1.0 mg/L total phosphorus/total nitrogen when a Lake Management Plan is approved by the Regional Board: The City opposes this revision because: (a) as noted above, Peck Lake does not currently suffer nutrient impairment as document by EPA's own sampling results from September 30, 2010; (b)the current "wasteload allocations" (or any revision thereto) are difficult, if not impossible to translated into a true "total maximum daily load" as required both by EPA and the judicial determinations under the Clean Water Act; and (c) given the current readings of phosphorous and total nitrogen in Peck Lake, there can be no scientific basis for a further adjustment of those standards upon the mere bureaucratic acceptance of a Lake Management Plan.</p> | USEPA does not agree that Peck Road Park Lake is no longer impaired. See Response 14.2. USEPA does not agree that the subject TMDLs fail to establish daily loads. See Responses 14.3 and 14.4. USEPA understands the comment to contend that if, in the future, alternative allocations apply by operation of, e.g., TMDL sec. 4.4.1.6.2, a water quality standard applicable to the lake will have been adjusted. USEPA does not agree that the use of an alternative allocation adjusts or revises any water quality standard. See generally, 40 CFR 130.2 (addressing distinction between allocations and water quality standards), and USEPA, Notice of Proposed Rule, 47 FR 49234 and 49244 (Oct. 29, 1982) (same). |
| 14.6 | <p>EPA Item No. 9: Updated wasteload and load allocations for. . . Peck Road Park Lake...organochlorine pesticides and PCBs TMDLs based on newly available fish tissue data: The City opposes any imposition upon it of an organochlorine pesticide or a PCB TMDL. As to PCBs, the City notes that EPA's summary of monitoring data (Section 4.4.3 beginning at p. 4-26 of the draft TMDL) a study of the water column sampling showed that the proposed "ambient level" of 0.17 ng/L is currently <u>above</u> [sic] detection limits of 1.5-1.58 ng/L. The City does not understand the purpose of EPA setting a water column target that is below currently obtainable method detection limits, and well above [sic] analytical reporting limits of 15-16.67 ng/L. Similarly, EPA's report of soil sediment samples in Peck Lake suggest that the "average sediment concentration" in the Lake for PCBs was 12.28 ug/kg, which is below the consensus-based TEC.</p> | USEPA notes that the water column wasteload allocation for PCBs is 0.17 ng/L, which has been the criteria that all waterbodies in California must attain since 2000 when it was promulgated as part of the California Toxics Rule. This value is below the detection and reporting limits of the laboratory used by USEPA for sample analysis for this TMDL. However, it is an appropriate numeric target for this TMDL as TMDLs must attain applicable water quality standards. See Response 7.7. Selection of the sediment target for PCBs in Peck Road Park Lake is explained in section 4.4.2 and is set at the lower of either the TEC or BSAF derived values in order to protect both benthic organisms and fish consumption by humans. |
| 14.7 | <p>The City further objects to the use of the Clean Water Act and its discharge requirements to impose a CERCLA-like legal liability upon the City. EPA confirms that PCBs "are no longer in production", and that the "primary source of PCBs in the water column and aquatic life in Peck Road Park lake is from historic loads stored in lake sediments." (Draft TMDL at Section 4.4, p. 4-25). EPA has no evidence, and certainly presents no evidence in the draft PCB section of the TMDL that Monrovia is accountable for any of the historical legacy of PCBs in lake sediments. Thus, to the extent that EPA is utilizing the device of a</p> | USEPA does not agree that establishing the subject TMDLs constitutes an evasion of or otherwise violates the Agency's CERCLA responsibilities. The commenter does not specify the requirements that it contends USEPA is violating. If the commenter is |

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| | TMDL under the Clean Water Act to evade determination of potential responsibility under CERCLA or to avoid any of the procedural requirements of the NCP, then it is violating its own legal standards and guidelines. | contending that the TMDLs cannot be established until some further action is completed under the National Contingency Plan, USEPA disagrees. |
| 14.8 | Finally, the City does not own or operate the lake and has no control over fishing or the types and quantity of fish in Peck Lake. Nor does the City have any control over any existing sediment beds which may or may not be contributing to elevated pollutant levels in fish tissue. The City should clearly not be held responsible for fish tissue standards. | USEPA disagrees. Discharges of water and sediment from City lands travel through the stormdrain system and deposited on the lake bed. This top layer of sediment in the lake is the most bio-available. To protect fish consumption by humans, USEPA has established WLAs and LAs for the concentration of organochlorine pesticides and PCBs on the suspended sediment in discharges to the lake, including that of the City. |
| 14.9 | The City has the same objections with respect to EPA's attempts to impose a TMDL for organochlorine pesticides in Peck Lake. One such compound is DDT, which, as EPA itself concedes, is "no longer in production" and was once "used throughout the world to control insects." (Draft TMDL at Section 4.6, p.4-53). EPA is attempting to impose upon Monrovia a liability for past practices that it has no evidence that the City or any industrial activity within the City in fact contributed to or added to a discharge that ended up in Peck Lake. EPA cannot circumvent the procedural protections and requirements of the NCP and the liability provisions of CERCLA by simply naming every political jurisdiction within a certain radius of Peck Lake and calling them "responsible jurisdictions" subject to a 'Total Maximum Daily Limit' (which is, in fact not even a true daily limitation) under the Clean Water Act. | See Response 14.7. |
| 14.10 | The City further objects insofar as the water criteria for DDT is below currently achievable detection limits. EPA documents that in 2008, a UCLA study of Peck Lake had detection limits of 3.0-3.3 ng/L, which were 'all higher than water quality criteria of 0.59-0.84 ng/L' (Draft TMDL, Sec. 4.6.3 at p.4-54). Monrovia cannot afford to be the subject of a world-class analytical laboratory sampling program for lowering detection limits of DDT in its stormwater. EPA should set its water criteria for DDT (or any other compound) at levels that are currently achievable by commercially available analytical laboratories. | Numeric targets must be selected based on the environmentally relevant levels that will be protective of beneficial uses of the waterbodies. The organochlorine pesticides and PCBs water column standards have been in place since promulgation of CTR in 2000. The levels observed in fish tissue are well above detection levels and above levels protective of human health. See Response 7.7. |
| 14.11 | <p>EPA Item No. 10: Revision of Dieldrin TMDL for... Peck Road Park Lake to include [sic] an estimate of existing sediment concentrations based on the full detection limit for non-detect samples instead of half the detection limit as previously drafted. The City believes in a simple scientific principal: If a reputable analytical laboratory with reasonable reporting limits examines environmental samples and reports them as 'non-detect', then EPA cannot, by waive of a magic regulatory wand, transform those samples into "detected at the method detection limit." This is simply not good science, and any effort by EPA to ignore science based upon its own preferred reasoning that there must be some dieldrin in Peck Road Park Lake because some dieldrin is detected in fish tissues found in the Lake is simply unscientific.</p> <p>The City reiterates its arguments about the inapplicability of an organochlorine pesticide TMDL as to it contained above. The City further notes that according to EPA, water column sampling conducted by UCLA in 2008 found no dieldrin in Peck Lake at then applicable detection limits. (Draft TMDL, Section 4.7.3, at p.4-67).</p> | USEPA is uncertain what revisions to the TMDLs the commenter is seeking. The assumption to which the comment refers (i.e., assume that the concentration of pollutants in non-detected samples is equal to the detection limit) was not used by USEPA to determine that Peck Road Park Lake is currently impaired. Rather, the assumption was used in the calculations to determine the appropriate allocations for future loadings. The assumption, as used, leads to more lenient (higher) allocations than the allocations that would result if, for example, one assumes that the pollutant concentration in the non-detect samples was equal to one-half the detection limit. USEPA believes that the commenter was not seeking such revisions, and USEPA has not decreased the load allocations in response to the comment. |
| 14.12 | The Draft TMDL goes into a considerable discussion regarding Dissolved Oxygen. The needs and differences in dissolved | USEPA does not agree that the TMDLs addressing |

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| | <p>oxygen levels between the upper and lower levels of the lake are clearly laid out. But, the City believes any discussion of dissolved oxygen is inappropriate as dissolved oxygen is not a pollutant in the traditional sense. It is not generated by any particular source, is not transported by a conveyance system and is instead primarily an artifact of the stratigraphy of the lake. MS4 permittees have no control over this. Dissolved oxygen as a pollutant should be deleted.</p> <p>Structurally, this TMDL is hard to reconcile with other overlapping TMDLs. The City is currently subject to the LA River Trash TMDL, with its monitoring and implementation plan. Under the Regional Board issued Trash TMDL, which as issued includes the Peck Road Park Lake, the City has already completed Daily Generation Rate Studies in 2009 and again in 2010 which have been previously submitted to the Regional Board and which show the city is in compliance with the Regional Board Trash TMDL through 2014. But, EPA's proposed Peck Road Park Lake TMDL appears to impose additional standards upon the City, including the zero trash compliance level with no target date, and refers to conduct a Rapid Trash Assessment as a compliance tool. This leaves the city in a quandary: Is the timeline for compliance with the EPA's goal of zero the same as the Regional Board or are they different? If so, which timeline takes precedence; and can the city use the Daily Generation Rate Study as an acceptable alternative to the Rapid Trash Assessment?</p> <p>To assist the EPA in preparing the final TMDL, the city suggests the EPA include a simple statement in clear language that: <i>"MS4 permittees are already operating under a Trash TMDL issued by the Regional Board and the provisions of that TMDL constitute the EPA TMDL."</i></p> | <p>Peck Road Park Lake's impairments should omit addressing impairments associated with insufficient dissolved oxygen. California has identified the lake as impaired for, among other reasons, "organic enrichment/ low dissolved oxygen", and USEPA concludes that addressing that impairment with a TMDL is appropriate. <i>Cf., Friends of the Earth v. EPA</i>, 446 F.3d 140, 144 (D.C. Cir. 2006) ("Because EPA has found '[a]ll pollutants ... suitable for the calculation of total maximum daily loads,' 43 Fed.Reg. at 60,665, it follows that the CWA requires the District of Columbia to establish a 'total maximum daily load' for each pollutant that contributes to the Anacostia's violation of the dissolved oxygen and turbidity standards.") While dissolved oxygen is a substance for which a water quality standard exists since its absence has lethal impacts on aquatic life. Conversely supersaturation also impacts aquatic life. TMDLs are set to attain water quality standards and the applicable water quality standards for these waterbodies include a dissolved oxygen criteria. Due to the relationship with nutrients and dissolved oxygen the TMDLs are set in TN and TP to attain the dissolved oxygen standard. See Appendix A and references therein for more information on the connection between nitrogen, phosphorus and dissolved oxygen. See also Response 3.27 regarding trash TMDLs. The Regional Board will be responsible for implementing this trash TMDL.</p> |
| 14.13 | <p>The City is committed to clean water, and spends considerable sums in educating its residents and staffing compliance programs to enhance water quality inside its jurisdiction and stormwater leaving its jurisdiction. But, the City cannot be subject to multiple, overlapping TMDLs that create regulatory confusion and an abyss of different regulatory agencies enforcing the same basic TMDL. At the same time, the Los Angeles Regional Water Quality Control Board, presumably with the advanced knowledge and assent of the EPA, has already scheduled a hearing on the proposed Toxics TMDL for the entire Los Angeles River basin, including the City of Monrovia. Assuming that this TMDL is subsequently incorporated into the NPDES permit, then the City will be subject to two sets of largely overlapping TMDLs with respect to toxics: EPA's TMDL for Peck Lake, and the Regional Board's TMDL for the Los Angeles River, into which Peck Lake drains.</p> <p>The City submits that imposed overlapping and largely (but not completely) duplicative TMDLs (assuming for the moment that they are in fact valid TMDLs) is a sure recipe for regulatory disaster. Structurally, EPA appears to divide presumed responsibility among the various jurisdictions based upon land area. In fact, however, much of the sediment discharges (including sediment that might contain minute traces of DDT, Dieldrin, or other legacy pesticides) is likely to come from two sources—the Angeles National Forest or the disruption of old or existing paved soils by new construction under the construction general NPDES permit. EPA's TMDL for Peck Lake should more carefully account for these likely sources and adjust the various "responsible jurisdiction" tables according to the actual evidence.</p> | <p>Discharges to waters of the State must meet hundreds of existing water quality standards in the receiving and downstream waters already. These TMDLs are and future Regional Board TMDLs will be written to attain those water quality standards. USEPA's TMDLs for organochlorine pesticides and PCBs allocate the same concentrations across the board to all jurisdictions. If the City's assertion is true that Angeles National Forest and permittees under the construction general NPDES permit are likely to be the main sources of pollution to the lakes, those sources will have to achieve proportionally greater reductions to achieve the same levels assigned to all parties. Those sources have been assigned wasteload allocations and USEPA believes this method of allocation is the most equitable in this case.</p> |

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| 14.14 | <p>One final comment regarding overall implementation measures that would apply best to section 4.9.3 Source Control Alternatives. Under this section, the draft TMDL states:</p> <p>“Responsible jurisdictions are encouraged to consider the construction of wetland systems and bioswales (or other biofiltration options) to treat the stormwater and supplemental water flows entering the lake,”</p> <p>This is an overly broad and generic suggestion that would practically apply to any TMDL for any pollutant in any waterbody. Better wording would be:</p> <p>“The MS4 permittees should work with the California Regional Water Quality Control Board, Los Angeles Region to develop a long term Water Quality Strategy with specific BMP implementation goals, timelines and monitoring where applicable.</p> | <p>MS4 permittees are encouraged to work with the Regional Board in developing revisions to their stormwater permits that include information about specific BMP implementation, timelines and monitoring. USEPA does not believe the development of a separate document outlining a long term strategy is necessary, however, MS4 permittees and the Regional Board are welcome to do so if they wish.</p> |
| 15 | Heal the Bay | |
| 15.1 | <p>We support several of the changes made since the last version of these TMDLs was released for public comment. Specifically, we support the USEPA efforts to collect and incorporate additional data to inform and revise the wasteload allocations (“WLAs”) included in these TMDLs. Also we support the addition of a dieldrin TMDL for Puddingstone Reservoir, and the revision of the organochlorine pesticides and PCBs TMDLs for Peck Road Park Lake, Echo Park Lake, and Puddingstone Reservoir to include water column wasteload allocations in addition to the previously proposed wasteload allocations for sediment. In addition, we support the inclusion of a maximum allowable alternative “Approved Lake Management Plan Wasteload Allocations” for demonstrating compliance with nutrient wasteload allocations for Lincoln Park Lake, Lake Calabasas, El Dorado Park Lakes, Legg Lakes, and Puddingstone Reservoir.</p> | <p>Comment noted.</p> |
| 15.2 | <p>USEPA should not employ “pocket delistings” for ammonia, pH, copper, and lead.</p> <p>One concern we have regarding this TMDL is the finding of nonimpairment for numerous waterbody-pollutant combinations. USEPA did not develop TMDLs for the following waterbody-pollutant combinations:</p> <ul style="list-style-type: none"> ▫ Peck Road Park Lake - lead ▫ Lincoln Park Lake – lead ▫ Echo Park Lake– copper, lead, ammonia, pH ▫ El Dorado Lake– copper, lead, and southern lake system pH ▫ Legg Lake– copper, lead, ammonia ▫ Santa Fe Dam Park Lake – copper, lead, pH ▫ Westlake Lake – lead <p>The lakes are still listed as impaired by these constituents, which could be present deeper in the sediment and resurface during dredging activities. Also, EPA determined the chronic freshwater criteria for copper and lead based on the 90th percentile hardness values and acute criterion based on the 50th percentile of hardness values measured during sampling events. These hardness values are not sufficiently protective. The critical condition for aquatic life is when metals are in dissolved form, which occurs more readily at lower hardness values. Had the USEPA set freshwater targets for copper and lead based on more protective hardness values (10th percentile), would the data show that there is still impairment? USEPA and Regional Board should not perform a “pocket-delisting” of these constituents by excluding them from the TMDL. Instead of excluding TMDLs for these impairments, we encourage USEPA to assign wasteload and load allocations to the responsible jurisdictions based on existing loading of the aforementioned contaminants. This would be consistent with the method used by USEPA for nitrogen and phosphorous in these TMDLs for lakes currently meeting chlorophyll a targets. The addition of these TMDLs would not place additional burden on the responsible jurisdictions because if monitoring efforts show that a responsible party already meets the numeric targets and allocations, they will be in early compliance with the TMDL.</p> | <p>See Response 6.3.</p> |
| 15.3 | <p>USEPA’s inclusion of an alternative method for nutrient wasteload allocation compliance is appropriate. USEPA includes a functional equivalent compliance alternative, “Approved Lake Management Plan Wasteload Allocation,” for lakes with required reductions in nutrient loadings. This alternative WLA requires responsible jurisdictions to create a Lake Management Plan describing actions that will be implemented to meet ammonia, dissolved oxygen, PH, chlorophyll a, and total phosphorous and total nitrogen water quality targets. We believe this is a reasonable option for determining compliance in these manmade lakes. Also there is precedent for nutrient numeric targets at 0.1 mg/L P and 1.0 mg/L N in the Machado</p> | <p>Comment noted.</p> |

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| | Lake Nutrient TMDL, which we supported. | |
| 15.4 | <p>USEPA should require whole fish testing to demonstrate fish tissue targets are met. These TMDLs include alternative wasteload allocations for OC pesticides and PCBs to be applied when "sufficient demonstration has been made that the fish tissue targets are being met" (TMDL 2-7). Specifically the TMDLs for Peck Road Park Lake, Echo Park Lake, and Puddingstone Reservoir require composite samples of skin-off fillets be taken to demonstrate targets are being met. This is a non-protective approach that has environmental justice implications. Some ethnic groups, especially Asian cultures, utilize the entire fish in their food preparation. The TMDL should require that the entire fish is tested, as certain high-lipid parts of the fish are prone to accumulate different levels of contamination and many anglers and consumers eat the entire fish.</p> | See Response 6.8 |
| 16 | City of Los Angeles | |
| 16.1 | Specifically, the Bureau supports and appreciates the revisions in the Echo Park Lake TMDLs to allow for a coordinated approach between the responsible parties as well as the alternative allocations for PCBs, chlordane, and dieldrin that acknowledges the key to addressing bioaccumulative impairments is to attain fish tissue targets. | Comment noted. |
| 16.2 | Additionally, the Bureau supports the concept behind the alternative wasteload allocations for Lincoln Park Lake and only requests that a footnote be added to Table 5-5 indicating that all allocations will be assessed in the lake. | This footnote has been added for the alternative load and wasteload allocations. |
| 16.3 | <p>Clarification is needed regarding the assessment of compliance for the separate allocations for the northern and southern portion of the Echo Park Lake watershed</p> <p>The TMDLs in Echo Park Lake establish separate allocations for the northern and southern portions of the watershed. As the drainage from these watersheds enters the lake from the same point of discharge, the Bureau would appreciate the incorporation of clarifying language in the TMDL that allows for evaluating the allocations together.</p> <p><i>Requested Action: Incorporate language into the Echo Park Lake TMDLs to allow for the combined assessment of allocations for the northern and southern portions of the watershed.</i></p> | Additional text has been added to allow for combining allocations to assess compliance. |
| 16.4 | <p>TN and TP allocations in the Nutrient TMDL for both Echo Park Lake and Lincoln Park Lake may result in non-compliance even the end goal of the TMDL has been achieved</p> <p>TMDL targets ensure that the goal conditions, protection of beneficial uses, are attained. As described in previous comment letters submitted to EPA (dated June 28, 2010 and October 28, 2010), the TMDL creates the potential for the attainment of beneficial uses (e.g., no impairment related to algae, DO, pH, ammonia) while exceeding TN and TP allocations resulting in noncompliance. As presented in the Lincoln Park Lake TMDLs, "Nitrogen and phosphorus target concentrations are based on simulation of nutrient concentrations and chlorophyll a response with the NNE BATHTUB model (see Section 5.2.5)." As such, attainment of the chlorophyll a target without attaining the TN and TP targets would suggest the model did not accurately simulate the effects of nutrients in the lake.</p> <p>While the revised TMDL does provide for conditional allocations, the conditional allocation only provides for a marginal increase in TN and TP concentrations (e.g., 0.88 mg/L-N to 1.0 mg/L-N and 0.08 mg/L-P to 0.1 mg/L-P in Lincoln Park Lake). This approach does not address the fundamental concern that all beneficial uses could be attained without attaining the model-based TN and TP targets and/or allocations. Therefore, the Bureau requests that a footnote be included in Tables 6-6, 6-7, and 6-8 of the Echo Park Lake TMDLs and Tables 5-4, 5-5, and 5-6 in the Lincoln Park Lake TMDLs stating "If the numeric targets for chlorophyll a, dissolved oxygen, and pH are met then the TN and TP allocations are considered attained as the beneficial uses have been demonstrated to be protected."</p> <p><i>Requested Action: Incorporate the aforementioned footnote in the Echo Park Lake and Lincoln Park Lake Nutrient TMDLs to ensure that attainment of beneficial uses does not result in non-compliance.</i></p> | Based on this and other comments received, USEPA has changed the Echo Park, Peck Road Park and Santa Fe Dam Park Lakes nutrient TMDLs to allow for compliance to be assessed based on attainment of the secondary indicators only, i.e. ammonia, pH, dissolved oxygen and chlorophyll a. The same is true for Lincoln Park Lake, Legg Lakes, Lake Calabasas and El Dorado Park Lakes under the Alternative Approved Lake Management Plan WLAs and LAs. |
| 16.5 | <p><i>Inclusion of CTR-based water column targets and allocations are not consistent with the sediment-based targets and allocations, are not considered or addressed in the linkage analysis, and do not consider the loading capacity of the system.</i></p> <p>The revised Draft TMDLs in Echo Park Lake added CTR-based water column allocations for bioaccumulative chemicals. However, for the following reasons, the CTR-based allocations should be removed from the TMDL:</p> | USEPA does not agree that the TMDLs addressing Echo Park Lake's impairments due to PCBs, chlordane, and dieldrin, should omit targets and allocations expressed as water column concentrations of those pollutants. USEPA understands the comment |

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| | <p>• <i>Impairment based on CTR criteria has not been established.</i> The bioaccumulative impairments in Echo Park Lake are based on exceedances of fish tissue concentrations. No water column exceedances of CTR criteria have been identified and the TMDL appropriately addresses fish tissue impairments through the use of fish tissue targets and sediment-based allocations. Inclusion of CTR-based water column allocations are therefore not necessary or appropriate nor are they required.</p> <p>• <i>CTR water column concentrations are surrogate measures of impairment and do not directly address the actual impairment.</i> Fish tissue targets provide the most direct link to the protection of human health and the listing for which the TMDLs are developed. The use of sediment allocations provides the direct link between the sources of bioaccumulative pollutants and the endpoint of concern (fish tissue). There is precedent in the Los Angeles Region (see the Calleguas Creek Watershed OC Pesticides and PCBs TMDL and Ballona Creek Toxics TMDL) for utilizing fish tissue targets as the means to protect human health from consumption rather than the CTR Human Health criteria. Note that in Calleguas Creek Watershed and Ballona Creek TMDLs CTR aquatic life criteria were included in the TMDL to address established non-human health related impairments.</p> <p>• <i>Inclusion of CTR based allocations essentially makes the sediment based allocations meaningless.</i> The CTR based allocations are significantly lower than expected water column concentrations that would be associated with attainment of the sediment based allocations. For example, if the PCB WLA of 1.77 ug/kg were met during a wet event where the total suspended sediment concentration was 200 mg/L the associated water column concentration would be 0.354 ng/L, which is more than twice as high as the CTR allocation of 0.17 ng/L. The TMDL had appropriately linked sediment concentrations to tissue concentrations; however, inclusion of the CTR based allocations essentially disregards the sediment based approach.</p> <p>• <i>CTR based allocations create conflicting goals of the TMDL.</i> The CTR criteria are based on translating goal fish tissue concentrations into water column concentrations. The fish tissue values and the modeled assumptions to translate those concentrations into water column concentrations in the CTR are not consistent with the fish tissue targets established in the TMDLs. The TMDLs are therefore establishing two conflicting fish tissue targets - one directly through the establishment of OEHHA's Fish Contaminant Goals (FCGs) and one indirectly through the establishment of CTR water column criteria. If the stated fish tissue targets in the TMDL are the FCGs, then the sediment allocations established to attain those targets should be the sole allocations utilized.</p> <p>Notwithstanding the comments above and the request to remove the CTR based allocations, the following revisions would be necessary to appropriately utilize the CTR to establish allocations:</p> <p>• <i>Evaluation of water column-based allocations needs to be consistent with the approach for evaluating sediment-based allocations.</i> The revised TMDLs provide for alternative wasteload allocations for the sediment-based allocations if fish tissue targets are met. The alternative allocation recognizes the key to addressing bioaccumulative impairments is to attain fish tissue targets. The same approach is therefore appropriate and necessary for any water column-based targets and allocations. Specifically, if the fish tissue targets are met, then only the TEC-based targets and allocations should apply in Tables 6-16, 6-17, 6-25, 6-26, 6-34, and 6-35.</p> <p>• <i>CTR criteria create conflicting goals of the TMDL.</i> As stated above, CTR criteria are based on translating goal fish tissue concentrations into water column concentrations and those goal concentrations are different than the FCGs. Therefore, the TMDLs need to select one tissue value as the fish tissue numeric target - <i>either</i> based on the CTR (see Calleguas Creek Watershed OC Pesticides and PCBs TMDL for tissue targets based on the CTR criteria) <i>or</i> the FCGs. Notwithstanding the comments herein that water column based allocations are not necessary, both the sediment-based allocations, and/or the water column-based allocations, need to be derived from the fish tissue target that is selected. Meaning, if the FCGs are selected, a water column-based allocation would need to be derived from the FCGs. If the CTR is selected, then sediment-based allocations would need to be derived from the CTR. Both translations of fish tissue to water column/sediment concentration would need to be explicitly detailed in the linkage analysis section of the TMDLs.</p> <p>• <i>The TMDLs do not establish a link between the water column targets and the established impairments.</i> In the linkage analysis, the TMDLs need to consider and address how the numeric targets will result in attainment of beneficial uses. As the compounds are bioaccumulative, the linkage analysis would need to establish a clear link between concentrations in the water</p> | <p>to contend that, because the TMDLs establish allocations and targets expressed as fish tissue concentrations and sediment concentrations for the pollutants causing the impairments, allocations and targets expressed as water column concentrations for those pollutants should not also be added. USEPA disagrees.</p> <p>PCBs, chlordane, and dieldrin, may cause impairments due to their presence in the water column or in sediment or in fish tissue, and allocations expressed as maximum concentrations of the pollutants in each of the media are appropriate. As noted in secs. 6.5, 6.6 and 6.7 of the TMDL, elevated levels of PCBs, chlordane and dieldrin are each currently impairing the REC1, REC2, and WARM uses by causing toxicity to aquatic organisms and raising fish tissue concentrations to levels that are unsafe for human consumption and impair sport fishing recreational uses. As further noted in those sections, maximum water column concentrations for each of those pollutants have been established in the water quality criteria applicable to the lake.</p> <p>USEPA believes that a TMDL addressing an impairment caused by a pollutant may include loads designed to ensure that the water quality criteria that apply to that pollutant are achieved and, when they are achieved, are maintained. <i>Cf., Anacostia Riverkeeper, Inc. v. Jackson</i>, 798 F.Supp.2d 210 (D.D.C. 2011) ("The Scope of a TMDL is Not Limited by Impairment Reports in a 303(d) List"; "... subsection (1)(C)'s instruction to develop a TMDL protective of water quality standards is an instruction to determine the pollutant load level necessary to safeguard all designated uses."; "Thus, by listing the Anacostia River as impaired and including it on their 303(d) lists, Maryland and the District triggered an obligation to develop TMDLs for pollutants that set load limits necessary to protect all water quality standards specified under state laws as applicable to the river—including all designated uses.").</p> <p>USEPA does not agree that including the loads expressed as water column concentrations is inconsistent with or renders redundant the loads expressed as sediment concentrations. A State's water quality standards can establish a pollutant's</p> |

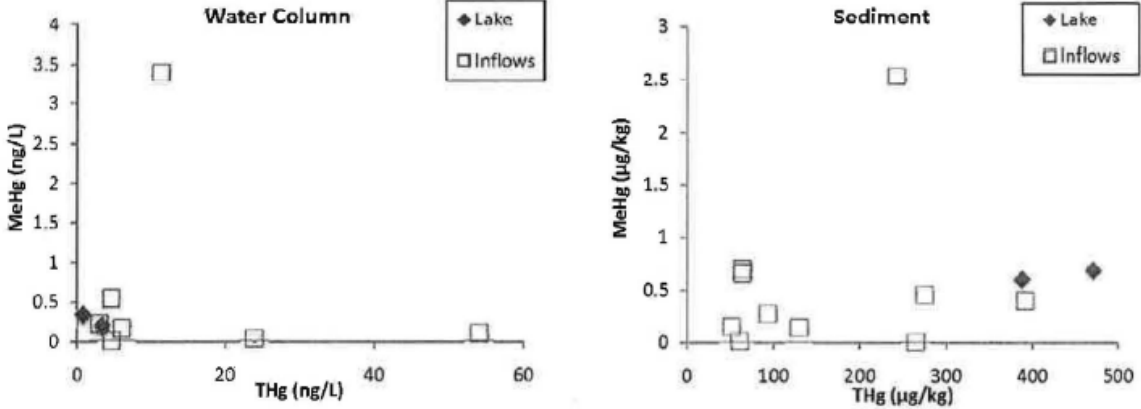
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| | <p>column and attainment of fish tissue concentrations. As noted above, the CTR criteria are based on different fish tissue concentrations than the selected fish tissue numeric targets. This contradiction needs to be identified, explained, and rectified in the linkage analysis.</p> <ul style="list-style-type: none"> • <i>The TMDLs do not consider loading capacity in determining appropriate allocations based on the CTR water column concentrations.</i> Per EPA's 2000 Guidance for Developing TMDLs in California: "The TMDLs 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)]. The loading capacity is the critical quantitative link between the applicable water quality standards (as interpreted through numeric targets) and the TMDL. Thus, a maximum allowable pollutant load must be estimated to address the site specific nature of the impairment. The loading capacity reflects the maximum amount of a pollutant that may be delivered to the waterbody and still achieve water quality standards." In establishing the CTR-based allocations, the TMDLs do not estimate the total assimilative capacity (loading capacity) and therefore the TMDLs are not consistent with EPA Guidance or the federal requirements of the Clean Water Act. To support the establishment of allocations based on the water column targets, a loading capacity that meets the requirements identified above must be included in the TMDL and allocations should incorporate the available loading capacity. <p><i>Requested Action: Remove the CTR-based numeric allocations from the Echo Park Lake TMDLs. If EPA chooses to retain these targets and allocations, then the following actions are requested:</i></p> <ul style="list-style-type: none"> • <i>Revise the sediment-based targets and allocations to be derived from the CTR criteria</i> • <i>Include language for the evaluation of water column-based allocations consistent with the evaluation of sediment-based allocations. Specifically, if the fish tissue targets are attained, then only the TEC-based targets and allocations apply.</i> • <i>Address the water column-based numeric targets in the linkage analysis, including identifying, explaining, and rectifying the contradiction in fish tissue concentrations in the selected numeric targets.</i> • <i>Include a loading capacity that meets the requirements of EPA Guidance and the federal requirements of the Clean Water Act.</i> | <p>maximum allowable concentration in the water column as well as its maximum allowable concentration in sediment without conflict or redundancy, and USEPA believes the subject loads can be similarly implemented in this case.</p> <p>Additionally, USEPA does not agree that, if the fish-tissue targets are met, the targets and allocations designed to meet the water column criteria for PCBs, chlordane, and dieldrin should no longer apply. The maximum water column concentrations for PCBs, chlordane, and dieldrin from which the TMDLs' targets and allocations are derived are themselves water quality criteria that apply to Echo Park Lake. In the event the TMDLs' fish-tissue concentrations are being implemented, but one or more of the applicable water column concentration criteria established under the CTR for PCBs, chlordane, and dieldrin are not, Echo Park Lake will still be impaired due to that pollutant. See, 40 CFR 130.7. Consequently, USEPA does not agree that the TMDLs' targets and allocations must be based solely upon criteria expressed as fish-tissue concentrations.</p> <p>USEPA believes that the linkage analyses in the TMDLs adequately explain the basis for determining Echo Park Lake's loading capacities. See TMDL secs. 6.5.5, 6.6.5., and 6.7.5. See Response 3.19.</p> |
| 17 | Los Angeles County, Department of Public Works | |
| 17.1 | The County of Los Angeles (County) generally supports the changes made to the proposed Total Maximum Daily Loads (TMDLs) including the addition of alternative compliance options for nutrients and toxic pollutants. | Comment noted. |
| 17.2 | <p>A TMDL for Santa Fe Dam Park Lake Is Not Justified</p> <p>The proposed TMDL for Santa Fe Dam Park Lake is not justified for two reasons. First, Santa Fe Dam Park Lake is a man-made water body that is hydrologically disconnected with any streams or stormdrains. The lake is essentially a man-made swimming pool fed artificially by groundwater and potable water. The lake is not a Water of the United States as defined by the Clean Water Act and thus the United States Environmental Protection Agency (USEPA) has no authority to promulgate a TMDL for it. Further, USEPA staff finds that "Santa Fe Dam Park Lake is attaining beneficial uses and meets pH water quality standards" (Staff Report, Page 11-9), but proposes the nutrient TMDL because "(l)oads of nutrients may also be potentially relevant to the pH impairment..." (Staff Report, Page 11-10). However, available data disprove nutrients as the cause of the elevated pH levels. In fact, the Staff Report acknowledges that the elevated pH levels in Santa Fe Dam Park Lake are due to naturally occurring conditions (Staff Report, Pages 11-10 and 11-15).</p> <p>The proposed nutrient TMDL for Santa Fe Dam Park Lake is a misapplication of the USEPA's antidegradation policy as it would force municipal agencies already facing severe economic hardships to expend scarce public funds to control naturally occurring elevated pH levels. Instead, the USEPA should apply the natural source exclusion rule, issue a finding of nonimpairment for Santa Fe Dam Park Lake and remove the proposed nutrient TMDL.</p> | <p>See Response 7.4. In August 2010, California identified Santa Fe Park Lake as impaired due to pH and other pollutants, and determined that a TMDL was still needed to address those impairments. As indicated in the TMDL, nutrient-related loads were allocated based on existing loading in order to prevent degradation of the lake.</p> <p>Additionally, based on this and other comments received, USEPA has revised the Santa Fe Dam Park lake nutrient TMDLs to allow for compliance to be assessed based on attainment of the secondary indicators only, i.e. ammonia, pH, dissolved oxygen and chlorophyll <i>a</i>. As for the elevated pH levels, USEPA believes that Santa Fe Dam Park Lake is meeting the applicable Regional Board pH standard since the elevated pH is not due to waste discharges.</p> |

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| 17.3 | <p>TMDLs for Bioaccumulative Pollutants for Peck Road Park Lake and Puddingstone Reservoir Are Not Justified</p> <p>In the previous comment letter we opposed using biota-sediment accumulation factor to establish sediment targets due to the limited fish tissue data and the inadequate linkage analysis. Since this issue was not addressed in the revised TMDLs, we offer the following additional comments. To establish the bioaccumulative pollutant loading in fish tissue, the proposed TMDLs use fish tissue data from the State Water Resources Control Board's Surface Water Ambient Monitoring Program (SWAMP). SWAMP typically selects primary target species based on popularity for human consumption (e.g., rainbow trout) and/or the effectiveness of documenting spatial trends in methylmercury (e.g., largemouth bass) or organics (e.g., common carp). Unfortunately, in the case of Peck Road Park Lake and Puddingstone Reservoir, only data for largemouth bass and common carp were available. Largemouth bass and common carp are poor assessors of human health risk because they are typically targets of catch-and-release fishing and not for consumption. The appropriate species for assessing fish consumption risks are trout or catfish, both of which are regularly stocked at Peck Road Park and Puddingstone Reservoir by the California Department of Fish and Game Fish Contaminant Goals are estimates of contaminant levels in fish that pose no significant health risk to individuals consuming sport fish at a standard consumption rate. These contaminant levels should not apply to the rarely consumed fish species such as largemouth bass and common carp. Therefore, in the absence of bed sediment impairment and impairment of fish tissue in commonly consumed species such as trout and catfish, the development of bioaccumulative pollutants TMDLs is unjustified.</p> <p>We strongly urge that the TMDLs for the bioaccumulative pollutants - PCBs, Chlordane, DDT, and Dieldrin - for the Peck Road Park Lake and Puddingstone Reservoir be removed.</p> | <p>Only largemouth bass were caught during the two sampling efforts at Peck Road Park Lake, and therefore only largemouth bass fish tissue samples were available for analysis. Based upon the sampling effort, USEPA believes that largemouth bass is the species most commonly caught at this lake. Additionally, many fishers, in particular minority fishers, do not practice catch and release and do consume largemouth bass. At Puddingstone Reservoir, recent sampling was conducted on largemouth bass and common carp; however, in 1987 and 1988 catfish were sampled and showed impairment for DDT, PCBs and Chlordane. Using the target species and setting limits for these species ensures that all species attain levels of contaminants at safe levels for human consumption. Additionally, common carp and largemouth bass were reported as eaten by fishers that consume their catch at an average rate of 43.1 and 15.6 g/day respectively. See "Extent of Fishing and Fish Consumption by Fishers in Ventura and Los Angeles County Watersheds in 2005" report by SCCWRP issued September 15, 2008.</p> |
| 18 | Los Angeles County, Department of Public Works, Flood Control District | |
| 18.1 | LA County Flood Control District resubmitted their prior comments. | See Responses 8.1, 8.2 and 8.3. |
| 19 | County of Ventura | |
| 19.1 | <p>Revision #3 "Inclusion of Point Mugu State Park"</p> <p>We support inclusion of Point Mugu State Park in the Lake Sherwood mercury TMDL. The County has no authority over the State Park area; thus, it has no mechanism or responsibility within this area to take actions associated with this TMDL. This revision had a very minor effect, adjusting 0.2% of the total load to the lake. In addition, agricultural runoff and atmospheric deposition should be addressed in this TMDL to consider appropriate mechanism to implement this TMDL because they are not under County's jurisdiction.</p> | Comment noted. See also Responses 19.2 and 7.12 |
| 19.2 | <p>Accounting for Agricultural Runoff</p> <p>Hidden Wash Sub-watershed on Table 12-7 shows 3,921 acres assigned to the County. This area includes 1,328 acres designated as agricultural area, which are privately owned and operated. The County has no authority over these areas; thus, it has no mechanism or responsibility to take actions associated with this TMDL. Other sub-watersheds' acreages similarly include agricultural areas as the responsibility of the County.</p> <p>REQUESTED ACTION: Add a subsection to Section 12.1 that accounts for agricultural runoff. Include separate load estimates in Table 12-7 and load allocations in Table 12-10 for agricultural runoff and subtract those amounts from the loads assigned to the County and others.</p> | See Response 12.2 addressing revisions to the allocations in the TMDLs for Lake Sherwood. |
| 19.3 | <p>Accounting for Atmospheric Deposition</p> <p>The atmospheric deposition was determined as the dominant source of mercury in the watershed in other countrywide TMDLs and includes the following:</p> <ul style="list-style-type: none"> • Northeast Regional Mercury TMDLs for waterbodies impaired by atmospheric deposition of mercury (MA, NH, NY, RI, VT, ME, CT); | See Response 7.12. |

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| | <ul style="list-style-type: none"> • Minnesota Statewide Mercury TMDL; and • Canoochee River Watershed Mercury TMDL (GA). <p>These TMDLs cap point sources (both stormwater and wastewater permitted dischargers) and require nominal source control, but focus regulatory pressure on the dominant source of atmospheric deposition. The proposed Mercury TMDL for Lake Sherwood also recognizes that need, and then inappropriately considers indirect atmospheric deposition to be responsibility of the County and others. As explained in the USEPA's guidance for implementing its January 2001 methylmercury water quality criterion 1, the approved mercury TMDLs such as these involving atmospheric loadings typically characterize the contributions from air deposition in terms of total or aggregate loadings. Atmospheric mercury loadings include both direct deposition to the waterbody surface and indirect deposition to the watershed. Segregating atmospheric deposition in the Lake Sherwood watershed would be consistent with this approach.</p> <p>REQUESTED ACTION: Add a subsection to Section 12.1 that accounts for indirect atmospheric deposition. Include separate load estimates in Table 12-7 for indirect atmospheric deposition and subtract that amount from the loads assigned to the responsible jurisdictions.</p> | |
| 19.4 | <p>Alternative Allocations</p> <p>In recognition of the substantial uncertainty in the linkage analysis and multiple implicit margins of safety in the Echo Park Lake TMDLs for Total PCBs, Chlordane, Dieldrin, the alternative allocations titled "Alternative Wasteload Allocations if Fish Tissue Targets Are Met" are provided. In this case, the California Toxics Rule (CTR) total mercury human health criteria should apply. The alternative wasteload allocations will apply, if:</p> <ul style="list-style-type: none"> (i) The responsible jurisdictions submit to USEPA and the Regional Water Quality Control Board (RWQCB) material describing how the fish tissue target has been met for the preceding three or more years, and (ii) USEPA does not object to the RWQCB determination within 60 days of receiving notice of it. <p>The same reasoning should apply to the mercury TMDL for Lake Sherwood, as discussed below in comments on the linkage analysis and margin of safety.</p> <p>REQUESTED ACTION: Consistent with the Echo Park Lake TMDLs for Total PCBs, add an alternative allocation that would apply if the fish tissue targets were attained based the alternative allocations on CTR criteria.</p> | See Response 12.3. |
| 19.5 | <p>MS4 WASTELOAD ALLOCATIONS</p> <p>The text in Section 12.1.2 titled "MS4 Permittees" notes "None of the Municipal Separate Storm Sewer System (MS4) permittees maintains a storm drain system in the Lake Sherwood watershed. However, there are residential developments in the vicinity of the lake which drain to culverts and storm drains that ultimately discharge to the lake." Our Countywide Stormwater Quality Program necessarily focuses on urban (or urbanizing) areas served by engineered drainage systems. Regulating discharges from undeveloped, uncontaminated County lands or private storm drain system as a municipal point source with effluent limitations is inappropriate. Table 12-7 indicates that the County is responsible for 8,869 acres that contribute to the MS4 stormwater runoff through the following sub-watersheds: "Western", "Hidden Valley Wash", "Near Lake Developed", "Northern", and "Southern". The vast majority (80%) of this acreage is zoned as an open space, as shown in Figure 12-7. Stormwater runoff from open space should not be attributed to the MS4 stormwater runoff. This is a serious concern because the land allocations and source assessment incorrectly assume that stormwater runoff from open space is conveyed by the County's MS4 system and discharged to Lake Sherwood. There is no County MS4 in the Lake Sherwood watershed.</p> <p>REQUESTED ACTION: Change all waste load allocations for MS4 system to load allocations for undeveloped areas.</p> | See Response 12.2. |
| 19.6 | <p>METHYLMERCURY SOURCES</p> <p>Section 12.2.5 "Linkage Analysis" states "rapid burial tends to depress the relative importance of regeneration of methylmercury (MeHg) from lake sediments." Appendix C goes on to reference a report by Tetra Tech (2001) concluding that "71 percent of the MeHg present in the water column [of McPhee Reservoir, CO] was estimated to derive from watershed inflows, while much of the MeHg created in lake sediment was apparently buried." But, in other words, 29% of the methylmercury load (from in-lake sediment flux at a less eutrophic lake in Colorado) was excluded in that TMDL. In Lake</p> | See Response 12.4. |

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| | <p>Sherwood's drier, warmer, more eutrophic conditions, in-lake sediment flux is likely an even greater percentage of the extant MeHg source. Furthermore, even if the dominant load of methylmercury were from tributaries, that load occurs episodically during the wet season. The sediment flux occurs throughout the year, exposing organisms to methylmercury in all seasons. In fact, one potential effect of this TMDL is an increase in erosion control efforts by regulated entities. Recognizing that mercury preferentially associates to smaller particles while erosion control measures preferentially remove larger particles, the total load of mercury may indeed decrease as a result of this TMDL while the sediment mercury content that does reach the lake may increase (see discussion below on Section 12.1.4). The end result could then be an increase in the sediment flux of methylmercury.</p> <p>REQUESTED ACTION: Acknowledge in Sections 12.2.5 and 12.3 the potential for erosion control efforts in the lake's watershed to increase mercury flux from lake sediments. Account for the potentially significant sediment flux of methylmercury from the stream and lake sediments in the linkage analysis. Allocate methylmercury load reductions to the lake managers.</p> | |
| 19.7 | <p>SECTION C.5.1 "SOURCE ASSESSMENT" The margin-of-safety calculations in Appendix C, Section C.5.1 "Source Assessment" are not consistent with the revised values in Table 12-8. REQUESTED ACTION: Conduct a final review based on any additional edits to ensure consistency between the chapter text and appendices.</p> | USEPA has revised the calculation examples in Appendix C to be consistent with the values presented in the lake chapter. |
| 19.8 | <p>SECTION 2.2.9 "PROBLEM STATEMENT, MERCURY" The mercury target that determines the TMDL is based on human health goals recently published by Cal-EPA's Office of Environmental Health Hazard Assessment (OEHHA). OEHHA published both advisory tissue levels (ATLs) and fish contaminant goals (FCGs) for methylmercury and other common contaminants in California sport fish. The ATLs are the basis for fish consumption guidelines and advisories. OEHHA clarifies that "FCGs are based solely on public health considerations relating to exposure to each individual contaminant, without regard to economic considerations, technical feasibility, or the counter-balancing benefits of fish consumption. 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." [Emphasis added] The FCG is 0.22 ppm, while the comparable ATL is >0.15-0.44 ppm (average = 0.30 ppm). Additionally, the lake is not designated for COMM beneficial use (fishing for consumption). In the case of Lake Sherwood, with strictly "catch-and-release" fishing, the FCG is an unrealistic and overly conservative endpoint. While there may be potential that individuals might consume fish from the Lake Sherwood periodically, it is highly unlikely that an individual will consume even one 8-ounce serving every week. Additionally, use of this overly protective target has a cascading effect, producing overly protective concentrations for trophic level 2 and 3 fish consumed by wildlife. In the case of mercury, there is an available USEPA recommended criterion for fish tissue. It is inappropriate to use a guidance value when recommended criteria exist for the media of interest (fish tissue), especially when the guidance value is not related to the beneficial uses that occur within the waterbody (i.e., only catch-and-release fishing is allowed). REQUESTED ACTION: Apply the Clean Water Act guidance criterion of 0.3 ppm of total mercury in fish tissue.</p> | The uses that apply to Lake Sherwood include: REC1, REC2, WARM, WILD, WET, GWR, and NAV as existing uses, and MUN as a potential conditional use. The consumption of fish by people is protected under the existing uses WARM and REC. In California it is appropriate to use the OEHHA FCG value to protect human health and this approach is consistent with other TMDLs in California. In these TMDLs the OEHHA FCG value is applied as a target to a 350mm largemouth bass. Applying this target to a high trophic level species at a size that people typically eat, results in protection of wildlife since it results in a much smaller concentration in the size and species of fish that wildlife typically consume. The USEPA guidance criterion of 0.3 mg/kg (ppm) methylmercury in fish tissue is intended to protect human consumers of 17.5 grams per day of fish (about 2 fish meals a month). USEPA is committed to developing criteria for mercury in California that are protective for wildlife including threatened and endangered species under the Endangered Species Act (See 65 FR 31682, at 31709). See also Response 3.18. |
| 19.9 | <p>SECTION 12.1 "ENVIRONMENTAL SETTING" Section 12.1 "Environmental Setting" states "recreation includes catch-and-release fishing, boating, and swimming." Recreational uses of the lake include only catch-and-release fishing and boating. Swimming is not allowed in Lake Sherwood. Fish from this private lake are not intended for human consumption. REQUESTED ACTION: Edit the text to read " . . . recreation includes catch-and-release fishing and boating. "</p> | See Response 2.3. |
| 19.10 | <p>SECTION 12.1.4 "LAND USES AND SOIL TYPES" Section C.3.2.4 "Direct Geologic Sources" in Appendix C notes that fault line activity in the three mercury-impaired</p> | Comment noted. Information about the USGS Geochemical Survey that generated estimates of |

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| | <p>watersheds is moderate, thus concluding that natural sources of mercury are relatively unimportant. However, the TMDL does not consider the fact that the geology of the Santa Monica Mountains (including the Lake Sherwood watershed) is comprised mainly of Conejo Volcanics with outcroppings of Monterrey formation. This formation is known for elevated concentrations of earthy metals, including mercury. The United States Geological Survey in collaboration with other federal and state government agencies, industry, and academia, is conducting the National Geochemical Survey (NGS) to produce a body of geochemical data for the United States based primarily on stream sediments, analyzed using a consistent set of methods. The Countywide average concentration of mercury in soils is 0.064 ppm.</p> <p>REQUESTED ACTION: Note in Section C.3.2.4 that the geology of the Santa Monica Mountains (including the Lake Sherwood watershed) is comprised mainly of Conejo Volcanics with outcroppings of Monterrey rock formation. This formation is known for elevated concentrations of earthy metals, including (among others) selenium and mercury. According to the USGS, the Countywide average mercury content is 0.064 ppm.</p> | <p>mercury concentration in soil from stream sediment data has been added to Appendix C.</p> |
| 19.11 | <p>SECTION 12.2.2 "NUMERIC TARGETS"</p> <p>The water column target for dissolved methylmercury is based on the fish tissue target and a national bioaccumulation factor (BAF). Trophic interactions, predation and growth rates, and other factors can cause the BAF to vary by more than an order of magnitude. This target is not used to develop the TMDL's allocations, is not regularly monitored [Appendix G], indicates compliance when it is monitored [Section 2.2.9.1], is not recommended for future monitoring [Section 12.4], and is misused in comparisons to unfiltered samples [Section 12.2.3]. USEPA guidance for implementing its January 2001 methylmercury water quality criterion recommends the use of site-specific data to relate fish tissue targets to water column concentrations and allows the option to implement the fish tissue criterion without water column translation. We request that USEPA refer to this USEPA guidance for reasoning to delete the dissolved methylmercury target.</p> <p>REQUESTED ACTION: Delete the dissolved methylmercury water quality target from the TMDL.</p> | <p>USEPA does not agree that the dissolved methylmercury target should be deleted from the TMDL for Lake Sherwood. Dissolved methylmercury is the most bioavailable form of mercury and the target is included in order to ensure that dissolved methylmercury concentrations do not exceed levels that impair the lake. A similar dissolved methylmercury target was included in the TMDL for Soulajule Reservoir (0.04 ng/L). The description of the comparison of total methylmercury concentrations to dissolved methylmercury concentrations in Section 12.2.3 has been edited to clarify that the higher total methylmercury values mean that they <i>may</i> be exceeding the dissolved methylmercury target. In addition, the omission of the word "dissolved" in front of the recommendation for future monitoring of "methylmercury" was an oversight. USEPA has updated the text and recommends monitoring for dissolved methylmercury to assess attainment of that water quality target.</p> |
| 19.12 | <p>Lack of Significant Sources</p> <p>Section 3.3 and Appendix C list the most significant sources of mercury in point source discharges (i.e., wastewater associated with the installation or removal of mercury amalgam dental fillings) in the watershed, (i.e., junkyards housing automobiles where mercury-containing switches have not been removed prior to crushing, and landfills where fluorescent light bulbs have not been properly disposed), and to the atmosphere (i.e., coal-power plants, cement manufacturing facilities, oil refineries, and chlor-alkali plants). None of these potential sources are found in the Lake Sherwood watershed.</p> <p>REQUESTED ACTION: Add a statement in the first paragraph of Section 12.2.4 that "No potentially significant sources of mercury are found in the Lake Sherwood watershed."</p> | <p>Section 3.3 includes a general summary of the major sources of mercury. The individual source assessment and characteristics of individual lakes are included in those lake chapters.</p> |
| 19.13 | <p>Native Soils</p> <p>As explained in USEPA's guidance document, "soils and sediments can include mercury of geologic origin or mercury produced by the weathering of geologic materials, together with mercury of anthropogenic origin (mercury emitted over time from human sources and then deposited on soils). Mercury in soils can also re-emit or become re-suspended and subsequently redeposit to soils. Local studies have been used in some TMDLs to estimate the geologic contributions of mercury to waterbodies. The mercury concentration estimated to be of geologic origin was then subtracted from the total</p> | <p>The TMDL is written to implement existing water quality standards. If the County wishes to pursue a use attainability analysis for this waterbody it should contact the Regional Board.</p> |

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| | <p>concentration of mercury measured in soils to estimate the nongeologic concentration of mercury in soils." The identification of the amount of mercury of geologic origin would allow for consideration of a natural source exclusion. Native soil erosion can be curtailed, but whatever soils continue to erode will likely still naturally contain high mercury contents. Because much of the County-owned land in the TMDL is comprised of undeveloped lands, this naturally occurring mercury is of significant concern. Although the County can take actions to reduce discharges of mercury from the developed areas, we cannot reduce or control naturally occurring mercury. The TMDL should allow for a natural source exclusion of the naturally occurring mercury in the watershed.</p> <p>REQUESTED ACTION: Estimate the mercury content of native soil and develop a natural source exclusion for this source to ensure MS4 discharges of naturally occurring mercury are not considered a violation of the allocations.</p> | |
| 19.14 | <p>In-stream and In-lake Methylation</p> <p>Methylmercury is the form that bioaccumulates in the aquatic food web. Appendix C notes how in-stream and in-lake methylation can be significant sources, yet they are ignored in the analysis and allocations based only on total mercury. In contrast, the recent methylmercury TMDL for the Sacramento - San Joaquin Rivers' Delta focuses on in-Delta methylation processes. The introduction notes that TMDLs have already been developed for algae, ammonia, eutrophication, and organic enrichment/low dissolved oxygen. While we appreciate the difficulty in providing a holistic analysis of effects of actions taken to comply with those TMDLs, the TMDL should recognize, at minimum, effects on methylation rates are likely. For example:</p> <ul style="list-style-type: none"> • Less organic enrichment/higher dissolved oxygen may reduce in-lake methylation rates. • Use of copper sulfate for algae reduction could enhance mercury methylation by stimulating sulfate-reducing bacteria. • If the same water column concentration of methylmercury is coupled with lower algal concentrations, the average algal cell's mercury content could increase, leading to higher rates of bioaccumulation and fewer fish. <p>REQUESTED ACTIONS: Estimate the proportion of methylmercury load that will be addressed as a by-product of other TMDL requirements (algae, ammonia, eutrophication, and organic enrichment/low dissolved oxygen) and adjust watershed allocations accordingly. Include a statement in Section 12.3 that recognizes that some lake management options may have counter-productive effects on methylmercury production in lake sediments and methylmercury bioaccumulation in lake fish.</p> | <p>Implementation of the nutrient TMDL is well underway at Lake Sherwood and these improvements to lake aeration are likely already yielding a reduction in methylation in the lake. See Response 12.4. Additionally text similar to what is requested to be included in TMDL section 12.3 is already included in the first paragraph of section 12.3.3 where the methylation at the mouth of Hidden Valley Wash is highlighted.</p> |
| 19.15 | <p>Linear Response from Total Mercury to Methylmercury</p> <p>The text states "Lakes with high sedimentation rates are therefore likely to respond approximately linearly to reductions in the watershed methylmercury and total mercury load." The water and sediment data tabulated in Appendix G for Sherwood Lake are plotted below pairing total mercury and methylmercury concentrations in water (left) and sediment (right). There is no discernible linear relationship between total mercury and methylmercury portrayed in these data.</p>  | <p>The text of the TMDL refers to the relationship between watershed methylmercury and total mercury load and fish tissue concentration, not the relationship between total mercury and methylmercury. Total mercury loading (not water column concentration) is relevant to methylmercury concentration in the water column (and resulting fish tissue concentrations) because the conversion of dissolved elemental mercury to methylmercury can occur within the water column and sediment after loading to the lake. As noted by the commenter the observed water column concentration of total mercury is below the water column target for total mercury of 50 ng/L. This is because the 50 ng/L value is the CTR based water quality standard which was not set at a level expected to achieve the fish tissue target. The value which was set at a level expected to achieve the fish tissue target is the dissolved methylmercury water column target of 0.081 ng/L. As noted in the lake chapter this value was exceeded in February 2010 and July 2009 samples.</p> |

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| | <p>Furthermore, Section 12.2.3 "Summary of Monitoring Data" states "on February 25, 2009, the observed [water column] concentration was 3.32 ng/L; on July 15, 2009, the observed concentration was 0.75 ng/L. Both measurements were more than an order of magnitude less than the target (50 ng/L)" These monitoring results indicate the irrelevance of total mercury concentrations in the water column to methylmercury concentrations in fish tissue.</p> <p>REQUESTED ACTION: Add text stating that the expected linear response is not evident in the data and, even if correct conceptually, depends on many other factors remaining constant as discussed in Appendix C.</p> | |
| 19.16 | <p>SECTION 12.2.6 "TMDL SUMMARY"</p> <p>The text identifies an outlier in Figure 12-12 that greatly exceeds the 95% upper prediction interval. The R² value for the regression with that outlier is not stated, yet it appears that the outlier is included in the estimated 95% upper confidence limit used to estimate the current average. Instead, the more appropriate estimate of the current average fish tissue concentration is the current average value (0.64 ppm). The margin of safety can be estimated in other ways, as discussed below.</p> <p>REQUESTED ACTION: Either exclude the outlier in the regression or state that the current level in fish tissue is the average (including the outlier).</p> | <p>The R² value for the regression equation was included on the previous page with the regression equation (R² =0.17). However, the outlier was erroneously included in the analysis and it has been corrected. The R² value for the new regression equation is 0.49.</p> |
| 19.17 | <p>Margin of Safety</p> <p>The explicit margin of safety (MOS) is back-calculated as the error term from applying the 95% upper confidence interval including the outlier. The text should explicitly account for other margins of safety (which are implicitly incorporated into the TMDL), including:</p> <ul style="list-style-type: none"> • The 27% safety factor from setting the target to the Fish Contaminant Goal (0.22 ppm) rather than to the Advisory Tissue Level (0.30 ppm) • The -15% safety factor from including the outlier to estimate the current average and 95% upper confidence interval fish tissue concentrations • The -10% safety factor from using a linear (rather than log-normal) regression to estimate fish tissue concentrations at a standard length of 350 mm • The -5% safety factor from comparing total mercury concentrations reported for fish tissue samples to the methylmercury fish tissue target Accounting explicitly for these multiplicative conservative assumptions will allow for a more reasonable and potentially attainable TMDL. These implicit assumptions make an explicit MOS unnecessary. <p>REQUESTED ACTION: Account explicitly for the (compounding) implicit margins of safety to demonstrate that an additional explicit MOS is unnecessary.</p> | <p>USEPA disagrees and believes an explicit margin of safety from using the upper confidence interval is appropriate. As described in Response 3.18 the FCG is the appropriate target. Additionally, the outlier has now been removed from the linear regression. Comparing total mercury in fish tissue to a methylmercury target occurred because methylmercury fish tissue data was not available. USEPA does not believe that this factor alone is a sufficient margin of safety and therefore applied an additional explicit margin of safety based on the statistical characteristics of the data.</p> |
| 19.18 | <p>SECTION 12.3 "IMPLEMENTATION RECOMMENDATIONS"</p> <p>While the general information on lake management strategies are helpful and may indeed result in reductions in fish tissue mercury concentrations, those benefits are not recognized in this TMDL. The recommendations are based on the understanding that, as commented elsewhere, the assumed linear relationship between total mercury tributary loads and fish tissue methylmercury body burdens is not appropriate. The discussion in this section should acknowledge this inconsistency, which would then support the requested edits to the targets and allocations.</p> <p>REQUESTED ACTION: Include a statement in Section 12.3 that lake management options may be most effective at reducing methylmercury production in lake sediments and methylmercury bioaccumulation in lake fish.</p> | <p>See Response 12.4.</p> |
| The following comments were received following a November 30th, 2011 targeted public notice | | |
| 20 | City of Thousand Oaks | |
| 20.1 | <p>USEPA proposes to assign mercury waste load allocation (WLAs) to the City for stormwater discharges into Lake Sherwood because the entities jurisdictional boundaries include areas that drain into Lake Sherwood, and the entities are subject to an MS4 permit. However, as the Lake Sherwood TMDL states, "Ventura and Los Angeles Counties as well as Thousand Oaks do not maintain a storm drain system in the Lake Sherwood watershed and these areas do not appear to be currently regulated under the existing Ventura County and Los Angeles County MS4 permits." (Lake Sherwood TMDL at 12.1.2.) Further, the MS4 permit that applies to the City of Thousand Oaks does not apply to storm drains that are not part of the MS4</p> | <p>In keeping with the Clean Water Act wasteload allocations are assigned to any waters and their associated pollutants that reach the lake through a point source. The discharges from Thousand Oaks lands flow into Lake Sherwood through a point source and are therefore assigned a wasteload allocation. See</p> |

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| | <p>system within the co-permittee's boundaries. Specifically, the county-wide MS4 permit applies to "... all areas within each co-permittee's boundaries that drain into the MS4." (Order No. R4-2010-0108 at p. 13.) MS4 is defined to mean "a conveyance or system of conveyances owned or operated by a state, city, town, borough, county,... that discharges into waters of the United States." (Order No. R4-2010-0108 at p. 109.) As stated in the TMDL, the storm drain system in question is not part of the storm drain system owned or operated by the City or County, and, therefore, is not subject to the MS4 permit. All storm water that originates within the jurisdictional boundaries of the City and drains to Lake Sherwood is overland flow at the City's jurisdictional boundary. The storm drain system at Lake Sherwood is not subject to the MS4 permit, and to our knowledge is not subject to the Phase II general NPDES permit requirements, the City's drainage to Lake Sherwood must be considered a nonpoint source discharge of pollution.</p> <p>A review of the Clean Water Act (CWA), the federal regulations and applicable guidance indicates that USEPA is to assign load allocation—not wasteload allocations—to nonpoint source discharges in TMDLs. The federal regulations define a wasteload allocation as that "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), emphasis added.) Further demonstrating that wasteload allocations are appropriate only for point sources, the definition states that wasteload allocations are a type of water quality-based effluent limitation (WQBEL). (40 C.F.R. § 130.2(h).) WQBELs are used in the context of the NPDES program, which applies only to point sources. (40 C.F.R. § 122.44(d).) In addition, the federal regulations define a load allocation as that "portion of a receiving water's loading capacity that is attributed either to one of its existing or future nonpoint sources of pollution or to natural background sources." (40 C.F.R. § 130.2(g), emphasis added.) Accordingly, federal law directs USEPA and other TMDL writers to assign wasteload allocations only to point sources (which typically are regulated by an NPDES permit) and load allocations only to nonpoint sources.</p> <p>Recent USEPA guidance also expresses USEPA's expectation that "TMDL authorities will make separate aggregate allocations to NPDES-regulated storm water discharges (in the form of wasteload allocations) and unregulated storm water (in the form of load allocations)." (Memorandum from J.A. Hanlon, Office of Wastewater Management, USEPA and D. Keehner, Office of Wetlands, Oceans and Watersheds, USEPA to Water Management Division Directors, Regions 1-10 Re: Revisions to the November 22, 2002, Memorandum "Establishing Total Maximum Daily Load (TMDL) Wasteload Allocations (WLAs) for Storm Water Sources and NPDES Permit Requirements Based on Those WLAs" (Nov. 12, 2010) at p. 4.) That is, a TMDL may prescribe wasteload allocations for stormwater discharges regulated by an NPDES permit and load allocations for stormwater discharges not covered by an NPDES permit. (See id. at p.6.) The USEPA guidance suggests that where a stormwater source addressed in a load allocation is not regulated by an NPDES permit but might become so regulated, the TMDL explain that the allocation as a load allocation is contingent on the source remaining unpermitted and would be deemed a wasteload allocation if later covered by an NPDES permit.</p> <p>As nonpoint source discharges of pollution, open space runoff from areas in the City's jurisdiction in the Lake Sherwood watershed should be assigned load allocations.</p> <p><i>Requested Actions: (1) Delete all wasteload allocations for Thousand Oaks MS4 Stormwater in Table 12-9 and change to load allocations for Open Space Runoff in Table 12-10.</i></p> | <p>also, Response 12.2.</p> |
| 20.2 | <p>The USEPA seems to be aware that the Lake Sherwood Golf Course uses reclaimed water for irrigation and to supplement the volume of water within the in-channel creek water feature, running through-out the course. The golf course pumps, recirculates and discharges this combination of reclaimed and creek water from the lower elevations of the creek (approximately at the lake elevation) back upstream to the higher elevations of the course. Subsequently, this creek/water feature becomes a recirculating 'sink' for pollutants and constituents existing both within the reclaimed water and those generated and draining from the use and maintenance of the golf course. Each storm event would cause this creek /water feature to crest the small weir and subsequently to drain into Lake Sherwood. The City fails to understand how this unique water feature has continued to not be recognized and considered as an input source to the Lake and arguably a site in need of Waste Discharge Requirements.</p> | <p>See Response 2.2.</p> |

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| 21 | County of Ventura | |
| 21.1 | <p>CHECK CALCULATED ALLOCATIONS Table 12-8 "Estimated Total Mercury Loading Capacity and Allocatable Load (as Fractions of the Existing Load)" was revised to have an Allocatable Load (fraction) of 0.296. Multiplying that fraction by the Existing Annual Hg Loads in Table 12-9 Wasteload Allocations of Mercury in the Lake Sherwood Watershed, we get slightly different values under column Wasteload Allocation than shown. Requested Action: Recalculate WLAs in Table 12-9 using the revised Allocatable Load of 0.296 to show the correct values.</p> | <p>The commenter is correct that the wasteload allocation is generated by multiplying the existing annual mercury load by the allocatable load. However, the existing annual mercury load numbers presented in Table 12-9 are rounded. When generating the wasteload allocations presented in Table 12-9 the full number is used for the calculation and <i>then</i> it too is rounded.</p> |
| 21.2 | <p>MISAPPLICATION OF WASTELOAD ALLOCATIONS The most significant issue in this new November 2011 version of the Lake Sherwood Hg TMDL remains the misapplication of WLAs to the County, other municipalities, and SVHOA. Four references to the TMDL document exemplify our concern. I. Section 12.1.2 "MS4 Permittees" includes the following text in the November 2011 version, implying that our current MS4 permit should cover these open space areas: Ventura and Los Angeles Counties as well as Thousand Oaks do not maintain a storm Drain system in the Lake Sherwood watershed and these areas do not appear to be currently regulated under the existing Ventura County and Los Angeles County MS4 permits. II. Section 12.2.6.1 "Wasteload Allocations" was also edited, yet still states: Wasteload allocations (WLAs) are required for all entities that discharge to the Lake through stormdrains or culverts. III. Table 12-7 "Summary of Existing Total Mercury Loading to Lake Sherwood" was edited such that "MS4 Stormwater" was changed to "Runoff," yet remains a WLA. IV. Section 12.3.2 recommends that "the Regional or State Board may develop a new permit to cover the previously unpermitted stormwater discharges to the lakes from Ventura County, Thousand Oaks and SVHOA/Sherwood Development Company sources." The Lake Sherwood watershed is not regulated under the existing Ventura or Los Angeles Countywide MS4 permits because there is no MS4 in the Lake Sherwood watershed. Rainfall runoff from open space is not a point source discharge. Wasteload Allocations (essentially water quality-based effluent limitations) do not apply to runoff from open space (40 CFR §130.2(g) and (h) and §122.44(d); EPA guidance²). Thus, there is no basis for recommending an additional permit covering this open space runoff, or shifting some of the responsibility to SVHOA does not address our concern. Requested Action: Recognize that runoff from rural County lands does not constitute an MS4 point source discharge by converting the WLAs (in Table 12-9) to LAs (in Table 12-10). We request that the values in Tables 12-9 and 12-10 be revised accordingly.</p> | <p>See Response 20.1 and 12.2.</p> |
| 21.3 | <p>ACKNOWLEDGE OTHER STATEWIDE EFFORTS Numerous comments in the County's Comment letter dated March 1, 2011 were intended to address the many conceptual and regulatory problems that we envision this TMDL will create. Bioaccumulation of naturally occurring mercury in lakes is a statewide concern that is being addressed over the next few years by (1) a statewide fish tissue objective and (2) a statewide reservoirs mercury TMDL³ Requested Action: In Section 12.3 "Implementation Recommendations," note that the State of California is developing a statewide fish tissue objective and a statewide Reservoirs Mercury TMDL, and that implementation of those statewide initiatives will likely address Lake Sherwood impairment.</p> | <p>Comment noted. Additional language has been added to the mercury TMDLs about the development of a Statewide Mercury Policy and Mercury Control Program for Reservoirs.</p> |
| 21.4 | <p>REVISIONS TO THE COUNTY COMMENT LETTER DATED MARCH 1, 2011 Subsequent to the public comment period to the January 2011 version, the County was able to improve its understanding of Lake Sherwood. Please accept these clarifications to our March 1, 2011 letter: 1. In our comments on Section 2.2.9 "Problem Statement, Mercury," remove two references to "catch and release fishing"; 2. In our comments on Section 2.2.9 "Problem Statement, Mercury," replace "with strictly 'catch-and-release' fishing" with "the</p> | <p>Edits noted.</p> |

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| | <p>potential for REC-1 beneficial use of recreational fishing";</p> <p>3. In our comment on Section 12.1 "Environmental Setting," remove our comment on no swimming in the lake; and</p> <p>4. Revise requested action in our comment on Section 12.2.4 "Source Assessment" – Lack of Significant Sources to read: "No potentially significant sources of total mercury have been identified in the Lake Sherwood watershed."</p> | |
| 22 | Sherwood Valley Homeowner's Association | |
| 22.1 | <p>As you know the Lake Sherwood Area is not entirely owned, maintained or under the jurisdiction of by Sherwood Development Company (SDC) or Sherwood Valley HOA (SVHOA). There are eight additional entities including HOAs and community groups that own and/or maintain their own streets and storm drain systems. They all contribute a portion of storm water through their storm drain systems into Lake Sherwood.</p> <p>The draft TMDL has mercury allocations that are based on areas not owned or maintained by SDC or SVHOA. With this understanding we have prepared an exhibit showing these jurisdictions. We believe this will provide a better understanding of the Lake Sherwood Areas and help determine the correct percentage of mercury allocations to each respective ownership entity.</p> <p>The exhibit shows all jurisdictions and their corresponding boundaries in Lake Sherwood and the main storm drain systems in these areas. The exhibit shows the main inlets and discharge points to better understand where storm water is collected and discharged.</p> | <p>Comment noted. The clarification on the entities owning parcels within the Lake Sherwood Overall Plan area has been incorporated into the TMDL. They have been assigned a joint wasteload allocation.</p> |