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July 10, 2017

Public Comment  
303(d) List of 2014 & 2016 CA Integrated Report  
Deadline: 7/10/17 by 12 noon

## ELECTRONIC MAIL

Jeanine Townsend, Clerk to the Board  
State Water Resources Control Board  
P.O. Box 100, Sacramento, CA 95812-2000



## COMMENT LETTER – REVISIONS TO THE LOS ANGELES REGION 303(D) LIST

The City of Los Angeles LA Sanitation (LASAN) appreciates the opportunity to provide comments on the Proposed Revisions to the Clean Water Act Section 303(d) List for the Los Angeles Region and the 2016 Integrated Report. The decisions related to the 303(d) List have the potential to direct resources to new or changing water quality priorities in all of the City's watersheds and development of new or revised TMDLs that require significant investment of both public agency and State resources. It is crucial that the 303(d) List be revised based on sound science and methodologies following the requirements of the State's Listing Policy. Revisions to the 303(d) List may result in changes to our Enhanced Watershed Management Programs, Coordinated Integrated Monitoring Programs as well as affecting requirements for the four Water Reclamation Plants operated by LASAN. As such, we feel it is imperative that the listings reflect our understanding of the watersheds to the best of our abilities given the available data.

Attachment 1 to this letter contains a table presenting detailed technical comments. If you have any questions related to comments #1 through 14, please contact Shahram Kharaghani, Watershed Protection Program Division Manager at [Shahram.Kharaghani@lacity.org](mailto:Shahram.Kharaghani@lacity.org) or at (213) 485-0587. For questions related to comments #15 through 17, please contact Hassan Rad, Regulatory Affairs Division Manager at [Hassan.Rad@lacity.org](mailto:Hassan.Rad@lacity.org) or at (213) 847-5186. We welcome the opportunity for our Division Managers and staff to discuss our comments and look forward to continuing our collaborative efforts to collect quality data for use in evaluating the attainment of water quality standards.

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Sincerely,



ENRIQUE C. ZALDIVAR, Director  
LA Sanitation

ECZ:SK:JLC:HR:es

Attachment

c: Traci Minamide, LA Sanitation/EXEC  
Adel Hagekhalil, LA Sanitation/EXEC  
Mas Dojiri, LA Sanitation/EXEC  
Shahram Kharaghani, LA Sanitation/WPD  
Hassan Rad, LA Sanitation/RAD

**Attachment 1: Detailed Technical Comments on the 2016 Revisions to the Los Angeles Region 303(d) List**

#	Water Body / Pollutant	Technical Comment
1.	Ballona Creek Toxicity	<p>The Fact Sheet for Decision ID 34253 presents two lines of evidence that indicate the presence of sediment toxicity (83019 and 83020). LOE 83019 references a Statewide Stream Pollution Trends Study 2008 and LOE 83020 references Statewide Project Urban Pyrethroid Status Monitoring. When reviewing the station locations (404SUP093 and 404BLNAXx) associated with these two LOEs in an August 2012 Surface Water Ambient Monitoring (SWAMP) report titled “Toxicity in California Waters: Los Angeles Region”, the sampling locations are identified as (page 11) “approximately one kilometer downstream from the confluence with Sepulveda Channel.” In a 2014 SWAMP report titled “Trends in Chemical Contamination, Toxicity and Land Use in California Watersheds: Stream Pollution Trends (SPoT) Monitoring Program Third Report - Five-Year Trends 2008-2012”, the site 404BLNAXx is identified as Ballona Creek Downstream of Centinela (33.986 -118.417). In the Ballona Creek Toxics TMDL Staff Report, Ballona Creek Reach 2 and Estuary are defined as follows (page 5): Ballona Creek to Estuary (Reach 2) is the longest segment of the creek (approximately 4 miles) continuing on from National Boulevard and ending at Centinela Avenue where the Estuary begins. The sediment monitoring sites are located within the tidal prism which is a little over one mile downstream of the historical mass emission station at Sawtelle Boulevard (specifically located above tidal influence). As such, the sites identified in LOEs 83019 and 83020 are in the Ballona Creek Estuary as defined by the Ballona Estuary Toxics TMDL, rather than in Ballona Creek, and addressed by the Ballona Estuary Toxics TMDL.</p> <p><b><i>Requested Action: Remove Decision ID 34253 for toxicity for Ballona Creek as there are no data to assess the waterbody pollutant combination.</i></b></p>
2.	Compton Creek Iron	<p>The Fact Sheet for Decision ID 62052 states that one LOE (83798) is available in the administrative record to assess iron in Compton Creek. LOE 83798 lists the following as the Evaluation Guideline used as the basis for the listing: “National Recommended Water Quality Criteria Continuous Concentrations are intended to protect freshwater aquatic organisms from chronic exposures and are expressed as 4-day average concentrations. The City has several concerns with this listing:</p> <ul style="list-style-type: none"> <li>• The only two exceedances are associated with wet-weather samples collected on October 13, 2009. The Evaluation Guideline used as the basis is <b>Criteria Continuous Concentrations</b> (i.e., chronic criterion). It is inappropriate to use a chronic criterion as it is meant to protect aquatic life against chronic exposure and the samples were taken during a wet-weather event not representative of chronic conditions. USEPA does not recommend a Criteria Maximum Concentration (acute criterion) for iron within its National Recommended Water Quality Criteria.</li> <li>• The National Recommended Water Quality Criteria Continuous Concentration for iron does not specify whether the criterion applies to the total recoverable or dissolved fraction. None of the dissolved iron results associated with the samples used to assess the water body exceeded the criterion.</li> <li>• Section 6.1.5.3 of the Listing Policy states that “Samples used in the assessment must be temporally independent. If the majority of samples were collected on a single day or during a single short-term natural event (e.g., a storm, flood, or wildfire), the data shall not be used as the primary data set supporting the listing decision.” However, multiple samples were collected on the same day during the same storms and each was considered separately. Samples collected on the same day during the same storm (as was the case with the two exceedances) should not be considered independently from one another as they are clearly not temporally independent and do not meet the Listing Policy requirements. Averaging samples collected on the same day results in 1 of 5 exceedances, which does not meet the requirements of the Listing</li> </ul>

		<p>Policy for placing a water body segment on the 303(d) list.</p> <p><b><i>Requested Action: Revise the decision for Decision ID 62052 for the iron listing for Compton Creek to Do Not List on 303(d) list (TMDL required list) and remove from Category 5 (Appendix B) due to an inappropriate evaluation guideline being used as the basis for the listing, the observed exceedances were not temporally independent, and none of the dissolved results exceeded the evaluation guideline.</i></b></p>
3.	Dominguez Channel Estuary (unlined portion below Vermont Ave) Copper	<p>The Fact Sheet for Decision ID 33751 states that five LOEs are available to assess copper in the Dominguez Channel Estuary, four of which correspond to sediment and one of which corresponds to water. The sole LOE (83984) that presents water data states that 3 of 3 samples exceeded the dissolved California Toxics Rule (CTR) saltwater chronic criterion. However, these sample results were all collected on the same day and appear to be for total copper associated with a wet-weather event. Section 6.1.5.3 of the Listing Policy states that “Samples used in the assessment must be temporally independent.” However, LOE 83984 considers the three samples collected on the same day during the same storm separately. Samples collected on the same day during the same storm should not be considered independently from one another. Additionally, when using the total copper CTR acute criterion (rather than the dissolved CTR chronic criterion), the samples do not exceed. As such, all LOEs that support a listing correspond to the sediment matrix.</p> <p><b><i>Requested Action: Remove LOE 83984, revise LOE 83984 to state 0 of 3 exceedances, or revise the pollutant for Decision ID 33751 for the copper listing for Dominguez Channel Estuary to “Copper (sediment)” given that the LOEs supporting a listing correspond to the sediment matrix and move the listing to Category 4a (Appendix ).</i></b></p>
4.	Ballona Creek Cyanide	<p>The Fact Sheet for Decision ID 32970 states that two LOEs are available to assess cyanide in Ballona Creek. Both LOEs (2339 and 82989) contain dry and wet weather data collected as part of the MS4 monitoring program. However, the LOEs state that only the CTR Criterion Continuous Concentration (i.e., chronic criterion) of 0.0052 mg/L for the protection of aquatic life was applied to the entire dataset rather than considering the application of the chronic CTR criterion during dry-weather and the CTR Criterion Maximum Concentration (i.e., acute criterion) during wet-weather as is traditionally done when assessing data in the Los Angeles region (particularly in the context of TMDL development). Section 6.1.3 of the Listing Policy allows for the selection of evaluation guidelines that represents water quality objective attainment or protection of beneficial uses. As such, selecting chronic and acute CTR criteria to evaluate dry and wet-weather data, respectively, would be consistent with the Listing Policy. When using the chronic and acute CTR criteria to evaluate dry and wet-weather data, respectively, the number of exceedances is 4 out of 45, meeting the delisting requirements. Maintaining the listing would require a TMDL even though applicable objectives are being met at a level that supports delisting, resulting in unnecessary efforts by the Los Angeles Regional Water Quality Control Board (Regional Board or LARWQCB) and Permittees.</p> <p><b><i>Requested Action: Revise the decision for Decision ID 32970 to Do Not List on 303(d) list (TMDL required list) and remove from Category 5 (Appendix B).</i></b></p>
5.	Lincoln Park Lake Ammonia	<p>The 28 data points utilized to develop the original listing in 1998 (as described in USEPA’s Los Angeles Area Lakes TMDL report) were reported as ammonium, without corresponding ammonia, pH, or temperature measurements making it impossible to compare these data to ammonia criteria. Only ammonia data collected with corresponding pH and temperature data should be used to determine if criteria were exceeded. However, based on the ammonium data presented in Appendix G of the USEPA TMDL report (Table G-29), only 2 of 28 samples exceeded the chronic ammonia criterion. Note that the two samples that exceeded were collected at the same location on the same day. In 2008, the Regional Board collected eight ammonia samples all of which were below the reporting limit of 0.1 mg/L and the chronic criterion. In 2009, the City of Los Angeles and</p>

		<p>USEPA/Regional Board conducted monitoring and collected 15 and three samples, respectively, all of which were below the chronic criterion. As stated in the TMDL report (pg. 5-10):</p> <p style="text-align: center;"><i>“There were no exceedances of the acute or chronic ammonia criteria during any recent sampling events with associated pH and temperature measurements.”</i></p> <p>In summary, 1) only 2 of 54 samples exceeded the chronic criterion, which meets the delisting requirements, and 2) there are no ammonia data with corresponding pH and temperature measurements available to support the original listing and all available recent data demonstrate there are no exceedances.</p> <p><b>Requested Action: Revise Decision ID 35004 for the ammonia listing for Lincoln Park Lake to Delist from 303(d) list and remove from Category 5 (Appendix B).</b></p>
6.	<p>Los Angeles (LA) River Reach 2 (Carson to Figueroa Street) and Los Angeles River Reach 5 (within Sepulveda Basin) Oil</p>	<p>The source of oil seeping into the River was found to be naturally-occurring crude oil. This conclusion is supported by the results of investigations completed by various agencies, which are summarized as follows:</p> <ul style="list-style-type: none"> <li>• An investigation was conducted following seeps of petroleum hydrocarbons into the LA River in June 2001. Based on lab results and borings, it was concluded that the source of the LA River channel oil seeps is naturally-occurring crude oil from Puente formation sands. Oil was visible in Puente formation seams, partings and fractures, as well as sand lenses, and appeared to have migrated upward into sandy alluvial soils. Gasses encountered included hydrogen sulfide, commonly sources from crude oil reservoirs. The hydrocarbon seeps appeared to be concentrated where the Puente formation contacts with younger, less permeable units or layers.</li> <li>• The USEPA On-Scene Coordinator (OSC) conducted subsurface investigations of the oil seeps in the LA River during August and September 2001. The OSC found that the oil did not discharge as a result of a spill, leak, or discharge from any facility and that the oil has been discharging to the river since at least 1943 and there is no practical means of preventing this oil seep from discharging to the River.</li> <li>• On April 19, 2002, an email was sent to Steven Pedersen of City of Los Angeles /Watershed Protection Division (WPD) by Steven Poole of the US Coast Guard/National Pollution Funds Center (USGC/NPFC). Mr. Poole stated that City of Los Angeles cannot submit to USGC/NPFC a claim for reimbursement for cost incurred by the City associated with May 2001 oil clean-up efforts in the LA River because Title 1 of the Oil Pollution Act does not allow for reimbursement for <b>naturally-occurring oil</b> (natural seepage).</li> </ul> <p>In summary, the reports and correspondence discussed herein, indicate that multiple agencies believe that the oil found in the listed reaches of the LA River is associated with naturally-occurring seepage suggesting that a 303(d) listing is not warranted.</p> <p><b>Studies Used in the Analysis</b> The following studies/correspondences were used in the analysis:</p> <ul style="list-style-type: none"> <li>• Pollution Report (2002), USEPA Region IX</li> <li>• Correspondence (2002) from Michael P. Brown, Manager, Geotechnical Engineering Division, Bureau of Engineering, City of Los Angeles</li> <li>• Correspondence (2002) from Steven Poole, Claims Manager, USGC/NPFC</li> </ul> <p>Despite repeated efforts by WPD to obtain the historical information utilized to develop the original listing, the Regional Board has</p>

not provided the information for inclusion in the analysis. Therefore, the analysis is based solely on recent information available to WPD.

**Summary of Findings**

The source of oil seeping into the River was found to be naturally-occurring crude oil. This conclusion is supported by the results of investigations completed by various agencies, which are summarized below.

**Investigations of the Geotechnical Engineering Division, Bureau of Engineering, City of Los Angeles – June 2001**

An investigation was conducted following seeps of petroleum hydrocarbons into the engineered channel of the LA River across from the Piper Technical Center in June 2001. This study concluded that the source of the LA River channel oil seeps is naturally-occurring crude oil from Puente formation sands, based on lab results and borings.

The samples of the oil seeps and associated bacterial-growth scums revealed that the seeps were predominantly in the oil or heavy-hydrocarbon range. This supports the conclusion that the LA River oil seeps are natural crude oil as opposed to fuel leaks. Drilling of wells along Mission St. (east of the river channel) confirmed that oil-bearing Puente formation sands and fractures are the source of crude oil and gases that migrate into the shallow alluvial soils. The hydrocarbons, visible oil and PID readings generally increased with depth toward the Puente formation. Oil was visible in Puente formation seams, partings, and fractures, as well as sand lenses, and appeared to have migrated upward into sandy alluvial soils. Gasses encountered included hydrogen sulfide, commonly sources from crude oil reservoirs. The hydrocarbon seeps appeared to be concentrated where the Puente formation contacts younger, less permeable units or layers.

**Pollution Report, USEPA – January 2002**

The USEPA OSC conducted extensive subsurface investigations of the oil seeps in the LA River during August and September 2001. The OSC found that the oil did not discharge to the River as a result of a spill, leak, or discharge from any facility based on the investigation. The oil has been discharging to the river since the least 1943 and there is no practical means of preventing this oil seep from discharging to the LA River. The OSC also evaluated the use of epoxy or urethane sealants on the seeps to reduce the flow of oil. However, it was concluded that the use of sealants on the seeps would cause the oil to get into the subdrain system and eventually enter the LA River.

In summary, WPD attempted to evaluate the original listing information in light of the currently available information. Although the Regional Board did not provide the information, the reports and correspondence discussed herein, and attached to this letter, indicate that multiple agencies believe that the oil found in the listed reaches of the LA River is associated with naturally-occurring seepage.

***Requested Action: Revise Decision IDs 34118 and 34203 for the oil listings for LA River Reaches 2 and 5 to Delist from 303(d) list and remove from Category 5 (Appendix B) given that the oil found in the listed reaches of the LA River is associated with naturally-occurring seepage. Alternatively, move the listing to Category 4b as other regulatory programs are reasonably expected to result in attainment of the water quality standard.***

7. Various waterbodies  
Various pollutants

Section 2.1 of the *Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List* (Listing Policy) titled "Water Quality Limited Segments" states (pg. 3): "Waters shall be placed in this category of the section 303(d) list if it is determined, in accordance with the California Listing Factors that the water quality standard is not attained; the standards nonattainment is **due to** toxicity, a pollutant, or pollutants; **and** remediation of the standards attainment problem requires one or more TMDLs." As such, all listings that do not identify either toxicity or a pollutant as the impairment do not meet the requirements for being placed in the water quality-limited segments category. This is supported by current listing decisions in Burbank Western Channel for excess algal growth, scum/foam-unnatural, and taste and odor and Calleguas Creek Reach 13 for excess algal growth that state the following (emphasis added): "Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification in favor of **removing** these listing from the 303(d) Water Quality Limited Segment list **because the segment pollutant combinations is not a pollutant.**" In addition, given that the Listing Policy states that the standards nonattainment must be "due to" either toxicity or a pollutant, listings that are simply "associated with" toxicity or pollutants do not meet the requirements for being placed in the water quality-limited segments category. Furthermore, given that the Listing Policy uses an "and" statement and not an "or" statement when listing the requirements for being placed in the water quality-limited segments category, requiring a TMDL (or other regulatory program) to attain standards is insufficient in and of itself for being placed in the water quality-limited segments category. Lastly, the Clean Water Act definition for a pollutant makes no mention of the presence or absence of a water quality objective. As such, the presence of an objective (as is the case within the Los Angeles region for pH and dissolved oxygen) does not necessarily signify that a constituent is a pollutant. The following table presents water body segments and listings that correspond to instances where there is not a pollutant.

Decision ID	Water Body Segment	Listing
44553	Arroyo Seco Reach 1 (LA River to West Holly Ave.)	Benthic Community Effects
44498	Compton Creek	Benthic Community Effects
32967	Compton Creek	pH
38511	Dominguez Channel Estuary (unlined portion below Vermont Ave)	Benthic Community Effects
35168	Los Angeles Harbor - Consolidated Slip	Benthic Community Effects
66232	Los Angeles River Reach 4 (Sepulveda Dr. to Sepulveda Dam)	Benthic Community Effects
34208	Los Angeles/Long Beach Inner Harbor	Benthic Community Effects
61605	Marina del Rey Harbor - Back Basins	Oxygen, Dissolved

**Requested Action: Revise the decision for the segments listed in the preceding table to Delist from 303(d) list or Do Not List on 303(d) list, whichever is applicable, and remove from Category 5 (Appendix B) or Category 4a (Appendix E).**

8.	Ballona Creek Wetlands Hydromodification	<p>The Regional Board response to comments states that the Ballona Creek Wetlands “hydromodification listing has been deleted.” In addition, the Fact Sheet for Decision ID 34699 states “After review of the available data and information, RWQCB staff concludes that the impairment is due to a non-pollutant or pollution. This impairment therefore falls under Integrated Report Category 4c.” Despite this information, this listing still appears in Appendix E (Category 4a).</p> <p><b>Requested Action: Remove the hydromodification listing for Ballona Creek Wetlands consistent with the Regional Board’s response to comments or move the listing from Category 4a to Category 4c to be consistent with the Fact Sheet for Decision ID 34699.</b></p>																																	
9.	Various waterbodies Various pollutants	<p>There are numerous listings that include waterbody segments which are in nonattainment due to pollution that is not caused by a pollutant. The 2016 Clean Water Act Sections 305(b) and 303(d) Integrated Report for the Los Angeles Region Staff Report (Staff Report) states the following (pg. 9): “Impaired waters are placed in Category 4c if the impairment is not caused by a pollutant, but rather caused by pollution, such as flow alteration or habitat alteration.” Impairments for benthic community effects, exotic vegetation, habitat alterations, hydromodification, and reduced tidal flushing are caused by either flow and/or habitat alteration (not by a pollutant or combination of pollutants) and; therefore, waterbody segments under these listings should instead be moved to Category 4c. In addition, given that the Staff Report states that the impairment must be “caused by” a pollutant, listings that are simply “associated with” pollutant listings do not meet the requirements for not being placed in Category 4c.</p> <table border="1" data-bbox="453 695 1734 1138"> <thead> <tr> <th>Decision ID</th> <th>Water Body Segment</th> <th>Listing</th> </tr> </thead> <tbody> <tr> <td>44553</td> <td>Arroyo Seco Reach 1 (LA River to West Holly Ave.)</td> <td>Benthic Community Effects</td> </tr> <tr> <td>44746</td> <td>Ballona Creek Wetlands</td> <td>Exotic Vegetation</td> </tr> <tr> <td>34697</td> <td>Ballona Creek Wetlands</td> <td>Habitat alterations</td> </tr> <tr> <td>34699</td> <td>Ballona Creek Wetlands</td> <td>Hydromodification</td> </tr> <tr> <td>44747</td> <td>Ballona Creek Wetlands</td> <td>Reduced Tidal Flushing</td> </tr> <tr> <td>44498</td> <td>Compton Creek</td> <td>Benthic Community Effects</td> </tr> <tr> <td>38511</td> <td>Dominguez Channel Estuary (unlined portion below Vermont Ave)</td> <td>Benthic Community Effects</td> </tr> <tr> <td>35168</td> <td>Los Angeles Harbor - Consolidated Slip</td> <td>Benthic Community Effects</td> </tr> <tr> <td>66232</td> <td>Los Angeles River Reach 4 (Sepulveda Dr. to Sepulveda Dam)</td> <td>Benthic Community Effects</td> </tr> <tr> <td>34207</td> <td>Los Angeles/Long Beach Inner Harbor</td> <td>Benthic Community Effects</td> </tr> </tbody> </table> <p><b>Requested Action: Notwithstanding the previous comment that supports revising the decision for the segments listed in the preceding table to Delist from 303(d) list or Do Not List on 303(d) list, whichever is applicable, move all segments listed in the preceding table with impairments caused by pollution to Category 4c and revise Appendix B or E as appropriate.</b></p>	Decision ID	Water Body Segment	Listing	44553	Arroyo Seco Reach 1 (LA River to West Holly Ave.)	Benthic Community Effects	44746	Ballona Creek Wetlands	Exotic Vegetation	34697	Ballona Creek Wetlands	Habitat alterations	34699	Ballona Creek Wetlands	Hydromodification	44747	Ballona Creek Wetlands	Reduced Tidal Flushing	44498	Compton Creek	Benthic Community Effects	38511	Dominguez Channel Estuary (unlined portion below Vermont Ave)	Benthic Community Effects	35168	Los Angeles Harbor - Consolidated Slip	Benthic Community Effects	66232	Los Angeles River Reach 4 (Sepulveda Dr. to Sepulveda Dam)	Benthic Community Effects	34207	Los Angeles/Long Beach Inner Harbor	Benthic Community Effects
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10.	Santa Monica Bay Offshore/ Nearshore Arsenic	<p>The Fact Sheet for Decision ID 67208 presents two lines of evidence related to arsenic in Santa Monica Bay (88949 and 88950). LOE 88949 presents information related to sediment and found that 0 of 32 samples exceeded the sediment goals utilized in the assessment. LOE 88950 presents information related to fish tissue and indicates that 19 of 19 samples collected as part of Hyperion Water Reclamation Plan NPDES Permit during August of 2006, and August, September, October, and November of 2007 exceeded the evaluation guideline with the presumption that results were reported on a wet-weight basis and 10% of the</p>																																	



total arsenic result represented the amount of inorganic arsenic in the sample for comparison to the guideline.

In reviewing LOE 88950, no information/citation can be found supporting the assumption that 10% of the total arsenic result represented the amount of inorganic arsenic in the sample. It is appropriate to utilize inorganic arsenic in assessing potential risk; however, either measured inorganic arsenic or a conversion factor developed from actual measured ratios from Santa Monica Bay should be utilized. In USEPA's 2000 Guidance for Assessing Chemical Contaminant Data for Use in Fish Advisories Volume 1 Fish Sampling and Analysis Third Edition (EPA 823-B-00-007), USEPA recommends that, in both screening and intensive studies, total inorganic arsenic tissue concentrations be determined for comparison with the recommended screening value for chronic oral exposure. Scientific literature demonstrates that a range of total to inorganic arsenic ratios exist. For example, a 2008 study specifically looking at arsenic speciation in 383 samples of marine fish and shellfish, showed that the inorganic fraction of arsenic is typically <0.5% with a few of the highest samples ranging from 1-5%<sup>1</sup>. The City's concern with the approach has been expressed in other regions of California as well. The Port of San Diego in an August 11, 2016 comment letter to the San Diego Regional Water Quality Control Board regarding a 303(d) arsenic listing<sup>2</sup>, noted the high level of variability of the proportion of inorganic arsenic across species (typically <10%) as measured in a number of other studies, as well as a methodology that could be used to ground truth the applied proportion through actual sample data. In response to the Port of San Diego's comment the San Diego Regional Board removed an arsenic listing from their draft 303(d) list and stated:

*"... there is a high level of uncertainty in the levels of inorganic arsenic in shellfish tissue. The assumption regarding the percent of total arsenic in shellfish tissue is likely conservative, and the San Diego Water Board agrees that a listing based on those assumptions has a high probability of mischaracterizing the results as an impairment. The San Diego Water Board supports the Port's suggestion that future monitoring of shellfish incorporate a measurement of both total and inorganic arsenic."<sup>3</sup>*

The City also has concerns with the approach to utilizing the data in comparison to the guidelines. Section 6.1.5.3 of the Listing Policy states that "Samples used in the assessment must be temporally independent." However, each individual sample was considered on its own without consideration for temporal representation. Samples collected on the same day (i.e., October 2007, November 2007, and September 2008) should not be considered independently from one another as they are clearly not temporally independent. Furthermore, given tissue concentrations represent the accumulation of pollutants over a time period of years and the risk endpoint relates to a carcinogenic effect over a 30-year period, considering samples collected within months of each other (October and November 2007 and August and September 2008) also does not provide the required temporal independence. Data should be aggregated across appropriate temporal timeframes, which should be assessed on a case-by-case basis, but should be no less than annually. Lastly, in assessing tissue data, consideration should be given to the fact that multiple samples and species are collected and the range of concentrations within those samples and across species represents exposure and potential risk. Considering each individual sample separately from one another or across species results in an assumption that an individual sample is representative of the exposure condition. Data should not only be aggregated on an

<sup>1</sup> Peshut, P.J. et al., 2008. *Arsenic speciation in marine fish and shellfish from American Samoa*. Chemosphere 71 488-492. doi:10.1016/j.chemosphere.2007.10.014

<sup>2</sup> Port of San Diego comment letter to California Water Quality Control Board – San Diego Region. "Comment – CWA Section 305(b)/303(d) Integrated Report." Letter Dated August 11, 2016.

<sup>3</sup> Page 47 of San Diego Region Response to Comment on 2014 303(d) list.

[http://www.swrcb.ca.gov/sandiego/water\\_issues/programs/303d\\_list/docs/Response\\_To\\_Comments.pdf](http://www.swrcb.ca.gov/sandiego/water_issues/programs/303d_list/docs/Response_To_Comments.pdf)

		<p>appropriate temporal scale, but also across species, potentially weighted based on likely consumption patterns.</p> <p>In summary, the lack of inorganic arsenic data and use of an unsupported conversion factor in combination with the approach to comparing tissue data that does not appropriately meet the requirements of temporal independence or reflect actual exposure conditions does not support listing arsenic in Santa Monica Bay.</p> <p>The City welcomes the opportunity to discuss approaches to develop inorganic arsenic data for use in future evaluations, as well as an approach to consider tissue data to properly evaluate arsenic in Santa Monica Bay.</p> <p><b><i>Requested Action: Remove Decision ID 67208 from the 303(d) list. However, if the Regional Board feels it is necessary to categorize the information within the Integrated Report, place the waterbody pollutant combination in Category 3 as there is insufficient data and information to make a beneficial use support determination, but information and/or data indicates beneficial uses may be potentially threatened.</i></b></p>
11.	Santa Monica Bay Offshore/ Nearshore Mercury	<p>The Fact Sheet for Decision ID 67209 presents three lines of evidence related to mercury in Santa Monica Bay (4165, 88894, and 88891). LOE 4165 and 88891 presents information related to sediment toxicity and sediment chemistry, respectively. LOE 88894 presents information related to fish tissue and indicates that 2 of 19 samples collected as part of Hyperion Water Reclamation Plan NPDES Permit during August of 2006, and August, September, October, and November of 2007 exceeded the evaluation guideline with the presumption that results were reported on a wet-weight basis.</p> <p>Section 6.1.5.3 of the Listing Policy states that “Samples used in the assessment must be temporally independent.” However, each individual sample was considered on its own without consideration for temporal representation. Samples collected on the same day (i.e., October 2007, November 2007, and September 2008) should not be considered independently from one another as they are clearly not temporally independent. Furthermore, given tissue concentrations represent the accumulation of pollutants over a time period of years, considering samples collected within months of each other (October and November 2007 and August and September 2008) also does not provide the required temporal independence. Data should be aggregated across appropriate temporal timeframes that should be assessed on a case-by-case basis, but should be no less than annually. Lastly, in assessing tissue data, consideration should be given to the fact that multiple samples and species are collected and the range of concentrations within those samples and across species represents exposure and potential risk. Considering each individual sample separately from one another or across species results in an assumption that an individual sample is representative of the exposure condition. Data should not only be aggregated on an appropriate temporal scale, but also across species, potentially weighted based on likely consumption patterns.</p> <p>The City welcomes the opportunity to discuss an approach to appropriately consider tissue data to properly evaluate mercury in Santa Monica Bay.</p> <p><b><i>Requested Action: Remove Decision ID 67209 from the 303(d) list. However, if the Regional Board feels it is necessary to categorize the information within the Integrated Report, place the waterbody pollutant combination in Category 3 as there is insufficient data and information to make a beneficial use support determination, but information and/or data indicates beneficial uses may be potentially threatened.</i></b></p>

12.	Various waterbodies Benthic Community Effects	<p>Notwithstanding the City's comments related to removing all listings that do not identify either toxicity or a pollutant as the impairment, the City identified the following listings for Benthic Community Effects (summarized in the following table) that are inappropriate:</p> <ul style="list-style-type: none"> <li>• LA River Reach 4 (Sepulveda Dr. to Sepulveda Dam): Decision ID 66232</li> <li>• Arroyo Seco Reach 1 (LA River to West Holly Ave.): Decision ID 44553</li> <li>• Compton Creek: Decision ID 44498</li> </ul> <p>The City believes the listings are inappropriate, based on the following issues that are described in more detail below:</p> <ul style="list-style-type: none"> <li>• <u>Listings for concrete-lined channels using current metrics are inappropriate.</u> Reference reaches for concrete-lined channels in highly urbanized catchments are lacking. Physical habitat conditions were apparently not considered during data evaluation. The State Water Resources Control Board (State Board) is planning to develop expectations for benthic community condition for developed landscapes using the California Stream Condition Index (CSCI) and a new Algal Stream Condition Index (ASCI). TMDL development for benthic community effects in concrete-lined channels based on unofficial Index of Biotic Integrity (IBI) thresholds is premature.</li> <li>• <u>Impairment of the reaches was not demonstrated using an appropriate metric for benthic community condition.</u> The listing decisions were based on Southern California Coastal Index of Biotic Integrity (SCIBI). The State Board has rejected use of the SCIBI in favor of the CSCI. The Regional Board Staff Conclusions (Staff Conclusions) for the listing decisions do not acknowledge that the data used to support the decisions were SCIBI scores, not CSCI scores. Instead, the Staff Conclusions imply that the decisions are based on CSCI scores.</li> <li>• <u>There is no established water quality criteria for benthic community condition.</u> Use of a SCIBI score of 40 (or other "cutoffs" promulgated by the authors of the SCIBI) as a listing threshold is not consistent with the State Board's current approach for identifying impairment thresholds for benthic community data. The Regional Board use of a CSCI score of 0.79 in other listing decisions (and implied to be appropriate for Ballona Creek) is also not consistent with the State Board's current approach for identifying impairment thresholds for benthic community data.</li> <li>• <u>Insufficient data are available to meet the listing requirements.</u> Notwithstanding the previous issues, several of the listings rely on a single site for data as a basis of the listing inconsistent with the Listing Policy.</li> </ul> <table border="1" data-bbox="453 1003 1791 1450"> <thead> <tr> <th rowspan="2">Type of Decision</th> <th rowspan="2">Segment / Station</th> <th colspan="5">Cited Benthic Community Data</th> </tr> <tr> <th>Line of Evidence (LOE) ID</th> <th>Data Source</th> <th>Metric used in Data Source</th> <th>Time Frame</th> <th>Scores<sup>[a]</sup></th> </tr> </thead> <tbody> <tr> <td>New Listing</td> <td>LA River Reach 4 (Station 13)</td> <td>86097</td> <td rowspan="2">Bioassessment Monitoring Report in LA County, 2006-2008</td> <td>SCIBI</td> <td>2006, 07</td> <td>2/2 scores were below 40</td> </tr> <tr> <td rowspan="2">Do Not Delist</td> <td rowspan="2">Compton Creek (Station 8)</td> <td>83829</td> <td>SCIBI</td> <td>2006, 07, 08</td> <td>3/3 scores were below 40</td> </tr> <tr> <td>30224</td> <td>LA County 1994-2005 Integrated Receiving Water Impacts Report. Section 5, LA River Watershed Management Area, pp 5.1 - 5.40</td> <td>SCIBI</td> <td>2003, 04</td> <td>2/2 scores were "very poor"</td> </tr> <tr> <td>Previous Listing</td> <td>Arroyo Seco Reach 1 (Station LALT501)</td> <td>30223</td> <td></td> <td>SCIBI</td> <td>2003, 04</td> <td>2/2 scores were below 13</td> </tr> </tbody> </table>	Type of Decision	Segment / Station	Cited Benthic Community Data					Line of Evidence (LOE) ID	Data Source	Metric used in Data Source	Time Frame	Scores <sup>[a]</sup>	New Listing	LA River Reach 4 (Station 13)	86097	Bioassessment Monitoring Report in LA County, 2006-2008	SCIBI	2006, 07	2/2 scores were below 40	Do Not Delist	Compton Creek (Station 8)	83829	SCIBI	2006, 07, 08	3/3 scores were below 40	30224	LA County 1994-2005 Integrated Receiving Water Impacts Report. Section 5, LA River Watershed Management Area, pp 5.1 - 5.40	SCIBI	2003, 04	2/2 scores were "very poor"	Previous Listing	Arroyo Seco Reach 1 (Station LALT501)	30223		SCIBI	2003, 04	2/2 scores were below 13
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		82895	Bioassessment Monitoring Report in LA County, 2006-2008	SCIBI	2008	1/1 score was below 40
New Data	Arroyo Seco Reach 1 (Station 7)	96151		SCIBI	2006, 07, 08	3/3 scores were below 40

[a] Per Staff Conclusions, SCIBI scores were binned as very good (80-56), good (41-55), fair (27-40), poor (14-26) and very poor (0-13) habitat conditions; sites with scores below 26 are considered to have impaired conditions.

**Listings for concrete-lined channels using currently available metrics are inappropriate.**

Application of the SCIBI to concrete-lined channels is especially inappropriate given the lack of a reference population for low-gradient streams in coastal southern California, in general, much less for modified channels, in specific. Section 6.1.5.8 of the listing policy states:

*“When evaluating biological data and information, RWQCBs shall evaluate all readily available data and information and shall evaluate bioassessment data from other sites, and compare to reference condition. Evaluate physical habitat data and other water quality data, when available, to support conclusions about the status of the water segment.”*

USEPA’s causal assessment manual cites physical habitat as a leading cause of impairment in streams on 303(d) lists and recommends that, in all cases where physical habitat is evaluated, stream size and channel dimensions, channel gradient, channel substrate size and type, habitat complexity and cover, vegetation cover and structure, and channel-riparian interactions should all be considered before making a decision.<sup>4</sup>

Physical habitat conditions are not referenced in the LOEs for the benthic community effects listings in the preceding table, although physical habitat data collection is a standard part of bioassessment monitoring and reporting. Ultimately, benthic community impairments in concrete-lined channels should be evaluated for potential listing in Category 4c of the 305(b) integrated report, instead of on the 303(d) list of segments requiring a TMDL. The USEPA Guidance for 2006 Assessment, Listing and Reporting Requirements Pursuant to Sections 303(d), 305(b) and 314 of the Clean Water Act (IRG) states:

*“Circumstances where an impaired segment may be placed in Category 4c include segments impaired solely due to lack of adequate flow or to stream channelization.”*

As part of its statewide Biostimulatory-Biointegrity Project, in recognition that it may not be appropriate or productive to apply a single set of benthic community condition expectations to streams in pristine and developed landscapes, the State Board is currently employing SCCWRP and CDFW to develop expectations for benthic community condition for developed landscapes using the CSCI and the ASCI.<sup>5</sup> The probability that concrete-lined channels in highly urbanized settings will be candidates for alternative benthic community endpoints is illustrated by language from the Work Plan:

***“In some streams, direct channel modifications (e.g., bank armoring) may also limit opportunities to sustain high-quality ecological conditions for aquatic life. In these highly developed settings, the large number of linked stressors may prevent a stream from supporting its beneficial uses or attaining high scores on indices of biological condition. Often, these stressors are difficult to mitigate or remove under the traditional mechanisms available to the Water Boards. In***

<sup>4</sup> U.S. EPA (Environmental Protection Agency). (2010). Causal Analysis/Diagnosis Decision Information System (CADDIS). Office of Research and Development, Washington, DC. Available online at <https://www.epa.gov/caddis>. Last updated September 23, 2010

<sup>5</sup> Mazor, R., M. Sutula, E. Stein, A. Rehn, and R. Ode (2017) Work Plan. Predicting Biological Integrity of Streams Across a Gradient of Development in California Landscapes.

*these circumstances, the range of CSCI and/or ASCI scores may be constrained, but targeted restoration could improve conditions. Key technical questions underpinning the range of options and prioritization of management actions for wadeable streams along the continuum from undeveloped to highly developed landscapes found within California are: For which streams is biological integrity constrained by development in the catchment? How can they be identified and mapped? What are the ranges of biological conditions these developed landscapes can support?” (Mazor et al. 2017; emphasis added)*

The following waterbody segments are concrete lined or directly downstream of concrete lined channels:

- LA River Reach 4 (Sepulveda Dr. to Sepulveda Dam): Decision ID 66232. All of LA River Reach 4 is concrete lined. Regardless, data for this listing were actually collected in the concrete lined portion of LA River Reach 5.
- Arroyo Seco Reach 1 (LA River to West Holly Ave.): Decision ID 44553. All 6.6 miles of this reach are concrete lined except for the 0.3 miles where the sample was collected for LOE 96151 (LOEs 30223 and 82895 were in the concrete portion of the channel). When considering the upstream reach (Reach 2) is another approximately 2 miles of concreted lined channel, the 0.3 miles sampled as part of LOE 96151 represents less than 4% of the total waterbody length.
- Compton Creek: Decision ID 44498: Compton Creek is 8.3 miles long and only the lower quarter is not concrete lined.

Triggering TMDL development for benthic community effects in the concrete-lined channels using thresholds derived from statistical distributions of IBIs from unarmored reference reaches is inappropriate.

**Impairment of the reaches was not demonstrated using an appropriate metric for benthic community condition.**

SCIBI-based datasets should not be considered for listing decisions. Section 3.9 of the Listing Policy states:

*“A water segment shall be placed on the section 303(d) list if the water segment exhibits significant degradation in biological populations and/or communities **as compared to reference site(s)** and is associated with water or sediment concentrations of pollutants including, but not limited to chemical concentrations, temperature, dissolved oxygen, and trash.” [Emphasis added.]*

While it is commonly assumed that the SCIBI inherently accounted for reference conditions, the reference conditions used to develop the SCIBI were not representative of the low-elevation/low-gradient streams commonly found in the alluvial plains of the Los Angeles Region.<sup>6,7</sup> It was developed using data from 275 sites, ranging from Monterey County to the Mexican border, but not a single reference location represented low-elevation and low-gradient streams. The reaches listed in the table above are extremely low gradient, low-elevation water bodies, and thus the SCIBI does not adequately define relevant reference conditions.

<sup>6</sup> Ode, P.R., A.C. Rehn, J.T. May. 2005. A Quantitative Tool for Assessing the Integrity of Southern Coastal California Streams. Environmental Management Vol. 35, No 4, pp. 494, Figure 1.

<sup>7</sup> Carter, J.L. and V.H. Resh. (2005). Pacific Coast Rivers of the Coterminous United States. pp. 541-590 in: A.C. Benke and C.E. Cushing (eds.), Rivers of North America. Elsevier Academic Press. Boston, MA.

	<p>Furthermore, the reference conditions used in the SCIBI represent a less restrictive definition of the reference condition than that which was deemed adequate as part of the State's Reference Condition Management Program<sup>8</sup>.</p> <p>The lead scientist for development of the SCIBI, Dr. Peter Ode, has acknowledged the limitations on application of the SCIBI. In a recently published paper regarding a study examining the SCIBI relative to other benthic macroinvertebrate bioassessments, he concluded that the SCIBI did not adequately address reference conditions in low-elevation sites, stating that the SCIBI was "not completely effective at controlling for an elevation gradient."<sup>9</sup> Dr. Ode was also the coauthor of a March 2009 report on recommendations for development and maintenance of a network of reference sites to support biological assessment of California's wadeable streams.<sup>10</sup> This report describes recommendations made by a technical panel of experts on bioassessment, including experts from the California Department of Fish and Wildlife, Southern California Coastal Water Research Project (SCCWRP), USEPA Region 9, and various universities. The technical panel laid out a number of steps that would be necessary to develop a network of adequate reference sites for implementation of criteria for bioassessments. They note that adequate reference sites have not been identified in southern California, stating, "human-dominated landscapes can be so pervasive in locations such as urban southern California and the agriculturally dominated Central Valley that no undisturbed reference sites may currently exist in these regions. A statewide framework for consistent selection of reference sites must account for this complexity."</p> <p>In 2010, as part of its project to develop a statewide Biointegrity Policy, the State Board abandoned use of the SCIBI and other regional IBIs, and funded development of the statewide CSCI (Mazor et al., 2016). The CSCI addressed at least some of the problems with the SCIBI through its use of a modeled reference condition as opposed to a regional reference pool. Starting in late 2016, the State Board began funding the development of a "companion" Algal Stream Condition Index (ASCI). The State Board is developing expectations for benthic community condition using both the CSCI and the ASCI which will be incorporated in a statewide Biointegrity Assessment Implementation Plan.<sup>11</sup></p> <p>The Staff Conclusions associated with the new listings in the preceding table do not acknowledge that the data used to support the new listings were SCIBI scores. Further, the Staff Conclusions for all of the new listings imply that Regional Board staff based the listing decision on CSCI scores. The source of the BMI data for each of the new listings, and the new LOE for Compton Creek, ("Bioassessment Monitoring Report in Los Angeles County, 2006-2008") were appendices (Appendix H) of the Los Angeles County Stormwater Monitoring Reports for 2006, 2007, and 2008. <i>In these reports, BMI data were scored using the SCIBI (Ode et al. 2005), not the CSCI.</i> In the case of Arroyo Seco Reach 1, the Staff Conclusions explicitly, but inappropriately, states that the underlying BMI data were CSCI scores. In the other cases, the ambiguous acronym "IBI" is used where scores are</p>
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<sup>8</sup> Mazor, R.D. (2012). Reference Streams and the Development of Bio-Objectives. Presentation to Member Agencies, Southern California Coastal Water Research Project. Costa Mesa, CA. Accessed on 02/21/2017.

[ftp://ftp.sccwrp.org/pub/download/PRESENTATIONS/Symposium2012/Bioassessment\\_1\\_Mazor.pdf](ftp://ftp.sccwrp.org/pub/download/PRESENTATIONS/Symposium2012/Bioassessment_1_Mazor.pdf).

<sup>9</sup> Ode, P.R., C.P. Hawkins, R.D. Mazor, Comparability of Biological Assessments Derived from Predictive Models and Multimetric Indices of Increasing Geographic Scope, J. N. Am. Benthol. Soc., 2008, 27(4):967-985.p. 982. Copy included in Appendix 4.

<sup>10</sup>Ode, P.R., K. Schiff. Recommendations for the Development and Maintenance of a Reference Condition Management Program to Support Biological Assessment of California's Wadeable Streams: Report to the Surface Water Ambient Monitoring Program. Southern California Coastal Water Research Project, Technical Report 581. March 2009. Copy included in Appendix 5.

<sup>11</sup> Sutula, M., A. R. Mazor, S. Theroux, E. Stein, P. Ode, A. Rehn, M. Paul, and B. Jessup. (2017) Science Plan to Support the State Water Board's Biostimulatory-Biointegrity Project for California Wadeable Streams.

cited, and then the narrative ends with a passage implying that the “IBI” scores were CSCI scores. The misleading information in the Staff Conclusion for each new listing recommendation is provided below.

- Los Angeles River Reach 4 (Sepulveda Dr. to Sepulveda Dam): “Both of the two samples collected had IBI scores below 40.... Two of the two samples collected had IBI scores below 40. ... **“The CSCI is applicable statewide, accounts for a much wider range of natural variability, and provides equivalent scoring thresholds in all regions of the state. The CSCI will be used in the future for water quality assessment purposes statewide over the regional indices of biologic integrity (IBIs).”** (Regional Board Staff Conclusion for Decision ID 66232, emphasis added)
- Arroyo Seco Reach 1 (LA River to West Holly Ave): “3 of 3 samples exceeded the GUIDELINE... **3 of 3 samples were below the California Stream Condition Index (CSCI) score of 0.79.** ... **“The CSCI is applicable statewide, accounts for a much wider range of natural variability, and provides equivalent scoring thresholds in all regions of the state. The CSCI will be used in the future for water quality assessment purposes statewide over the regional indices of biologic integrity (IBIs).”** (Regional Board Staff Conclusion for Decision ID 96151, emphasis added)

**There is no established water quality criteria.**

Regional Board staff utilized a SCIBI score of 40 as a listing threshold. However, this value is not an established water quality criteria, nor does it represent the type of threshold the State Board intends to use to identify community condition or levels of impairment in its Biointegrity Assessment Implementation Plan. A SCIBI score of 39 was originally promulgated by the authors of the SCIBI (Ode et al. 2005) as an “impairment threshold” because it was equal to an arbitrary statistical criterion (two standard deviations below the mean reference site score). Although it was not used for the listings in the table above, Regional Board staff have also used a CSCI score of 0.79 as a listing threshold for other reaches. However, a CSCI threshold of 0.79 is also based on an arbitrary statistical criterion (10th percentile of the reference calibration site scores; Mazor et al. 2016), and is not an adopted water quality criteria.

The State Board is not pursuing use of arbitrary statistical cutoffs, such as reference population percentiles, to identify benthic community impairment going forward. As outlined in the November 2016 Work Plan<sup>12</sup>, the State Board is using a Biological Condition Gradient Expert Synthesis approach to relate ranges of biological condition scores to community condition. Using this approach, a team of experts uses taxonomic metrics to assign degrees of biological condition to test sites while being blind to the degree of anthropogenic stressors present at the sites. In addition, the analysis is blind to the relationship between site scores and statistical distributions of overall datasets or reference datasets.

**Insufficient data are available to meet the listing requirements**

Notwithstanding the previous issues, several of the listings rely on a single site for bioassessment data, which is inconsistent with the Listing Policy. Per section 3.9 (Degradation of Biological Populations and Communities) of the Listing Policy, “The analysis should rely on measurements from at least two stations.” Only one site is referenced in the Fact Sheets for the following listing decisions:

- Los Angeles River Reach 4 (Sepulveda Dr. to Sepulveda Dam) [Also, note that the data associated with Los Angeles River Reach 4 was actually collected in Los Angeles River Reach 5.]

<sup>12</sup> Sutula, M., E. Stein, R. Mazor, S. Theroux, M. Paul, B. Jessop, and J. Gerritsen. 2016. Draft Work Plan “Expert Interpretation of the Biological Condition Gradient in California Wadeable Streams” November 2016 Update.

		<ul style="list-style-type: none"> <li>• Arroyo Seco Reach 1 (LA River to West Holly Ave.)</li> <li>• Compton Creek</li> </ul> <p>Because data were only collected at one site within these waterbodies, the requirements of the Listing Policy are not met.</p> <p><b>Summary</b></p> <p>As described in detail above, the approach utilized to establish benthic community effects impairments are not demonstrated using an appropriate metric for benthic community condition. The listings rely on an unestablished water quality criteria based on metrics that are not appropriate for concrete-lined channels. Lastly, in all but one listing, there are not sufficient data to meet the listing requirements per the Listing Policy as the data were only collected at a single site within a waterbody.</p> <p><b>Requested Action: Remove the following Decision IDs from the 303(d) list:</b></p> <ul style="list-style-type: none"> <li>• <b>LA River Reach 4 (Sepulveda Dr. to Sepulveda Dam): Decision ID 66232 [Note that samples used in this decision were actually collected in LA River Reach 5]</b></li> <li>• <b>Arroyo Seco Reach 1 (LA River to West Holly Ave.): Decision ID 44553</b></li> <li>• <b>Compton Creek: Decision ID 44498</b></li> </ul>
13.	Arroyo Seco Reach 2 Benthic Community Effects	<p>The Final Listing Decision for Decision ID 65548 has been changed to “do not list”; however, the Regional Board Staff Conclusion and Regional Board Staff Decision Recommendation have not been updated to be consistent with the Regional Board’s findings (stated in the response to comments) that “the sampling site with the exceedances in the soft bottom section is actually in Arroyo Seco Reach 1.”</p> <p><b>Requested Action: Revise the Regional Board Staff Conclusion and Regional Board Staff Decision Recommendation for Decision ID 65548 to support the Final Listing Decision of Do Not List on 303(d) list (TMDL required list) based on the Regional Board’s findings.</b></p>
14.	Arroyo Seco Reach 1 Benthic Community Effects	<p>Section 3.9 of the Listing Policy titled “Degradation of Biological Populations and Communities” states</p> <p><i>“A water segment shall be placed on the section 303(d) list if the water segment exhibits significant degradation in biological populations and/or communities as compared to reference site(s) <b>and</b> is associated including but not limited to chemical concentrations, temperature, dissolved oxygen, and trash...<b>Association of chemical concentrations, temperature, dissolved oxygen, trash, and other pollutants shall be determined using sections 3.1, 3.2, 3.6, 3.7, 6.1.5.9, or other applicable sections.</b>”</i></p> <p>As such, listing a waterbody for benthic community effects does not only require LOEs that support significant degradation in biological populations and/or communities. LOEs that support an association with water or sediment concentrations of pollutants must also be provided for a waterbody to be listed for benthic community effects. The Listing Policy is explicit that the same conditions which must be met to make a determination that water quality standards are being exceeded must also be met to make a determination that an association with water or sediment concentrations of pollutants is present. In one instance, an</p>



association with a pollutant is stated, but the associated pollutant is not identified as a “candidate cause” within USEPA’s *Stressor Identification Guidance Document*<sup>13</sup> which outlines the steps to be taken to discern the stressor(s) responsible for impacting a biological community. The following table identifies the instance where there is no associated pollutant listed or the associated pollutant does not have a meaningful relationship to the impairment for various benthic community effects listings.

Decision ID	Water Body Segment	“Associated” Pollutant
44553	Arroyo Seco Reach 1 (LA River to West Holly Ave.)	Coliform Bacteria

**Requested Action: Revise the decision for the segment listed in the preceding table to Delist from 303(d) list and remove from Category 5 (Appendix B).**

15.	Los Angeles River Reach 3 (Figueroa St. to Riverside Dr.), Los Angeles River Reach 5 (within Sepulveda Basin), Bull Creek, Wildlife Lake, and Balboa Lake Ammonia	<p>The City of Los Angeles (and City of Burbank) have installed and implemented nitrification/denitrification (NDN) treatment processes at three water reclamation plants in the LA River watershed. The City of Los Angeles has spent approximately \$75 million to construct these advanced treatment facilities to address ammonia (in addition to nitrate and nitrite) at both the Los Angeles-Glendale Water Reclamation Plant (LAGWRP) and Donald C. Tillman Water Reclamation Plant (DCTWRP), and spend approximately \$6 million per year to operate those facilities. Through the installation and implementation of NDN treatment facilities and process optimization by the City of Los Angeles (and City of Burbank) water quality has improved significantly for ammonia (and for nitrogen as a whole). In fact, the quality of the water in the LA River watershed has been demonstrated to be fully attaining the applicable water quality objectives for ammonia since completion of NDN at all three WRPs (LAGWRP, DCTWRP, and Burbank WRP). These findings are supported in the fact sheets. Because NDN represented the implementation of management practices that have resulted in a change in the water body segments listed downstream of their respective discharges, only data collected post-NDN operations should be considered, consistent with Section 6.1.5.3 of the Listing Policy (Temporal Representation), which states that:</p> <p><i>If the implementation of a management practice(s) has resulted in a change in the water body segment, only recently collected data [since the implementation of the management measure(s)] should be considered.</i></p> <p>The following outlines information for each Decision ID associated with the ammonia listings in the following waterbodies and supports a reconsideration of the listings based only on recently collected data:</p> <ul style="list-style-type: none"> <li>• Los Angeles River Reach 3 (Figueroa St. to Riverside Dr.)</li> <li>• Los Angeles River Reach 5 (within Sepulveda Basin)</li> <li>• Bull Creek</li> <li>• Wildlife Lake</li> <li>• Balboa Lake</li> </ul> <p>The Fact Sheet for Decision ID 32974 corresponds to the ammonia listing for Los Angeles River Reach 3 (Figueroa St. to Riverside Dr.) and states that two lines of evidence are available in the administrative record to assess the pollutant, although there are three lines of evidence present (85894, 86019, and 2507). LOE 2507 is a placeholder to support a 303(d) listing decision made prior to 2006. LOEs 85894 and 86019 each state that all of the exceedances in each dataset occurred prior to and</p>
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<sup>13</sup> U.S. EPA (Environmental Protection Agency). (2000). Stressor Identification Guidance Document. Office of Research and Development, Washington, DC. Last updated December 2000

in 2007. The City found that the last exceedance was July 2007, which is to be expected given that 2007 was the year that the NDN treatment process as completed at both the LAGWRP and DCTWRP. Both the LAGWRP and DCTWRP discharges travel through Los Angeles River Reach 3, and since the NDN processes to remove ammonia were completed in July 2007, no exceedances in this waterbody have been observed.

The Fact Sheet for Decision ID 32567 corresponds to the ammonia listing for Los Angeles River Reach 5 (within Sepulveda Basin) and states that two lines of evidence are available in the administrative record to assess the pollutant, although there are three lines of evidence present (86205, 86204, and 2520). LOE 2520 is a placeholder to support a 303(d) listing decision made prior to 2006. LOEs 86205 and 86204 each state that all of the exceedances in each dataset occurred prior to March and August 2007, respectively. The DCTWRP discharge flows through part of Reach 5 and the NDN processes to remove ammonia were completed in 2007.

The Fact Sheet for Decision ID 60597 corresponds to the ammonia listing for Bull Creek and states that two lines of evidence are available in the administrative record to assess the pollutant (83158 and 83154). LOE 83154 presents one data point collected in May 2008 that does not show an exceedance. LOE 83158 states that all of the exceedances occurred prior to August 2007. The DCTWRP discharge flows through Bull Creek and the NDN processes to remove ammonia were completed in 2007.

The Fact Sheet for Decision ID 66374 corresponds to the ammonia listing for Wildlife Lake and states that one line of evidence is available in the administrative record to assess the pollutant (90174). LOE 90174 states that all of the exceedances occurred prior to August 2007. The DCTWRP discharge flows through Wildlife Lake and the NDN processes to remove ammonia were completed in 2007.

The Fact Sheet for Decision ID 60378 corresponds to the ammonia listing for Balboa Lake and states that one line of evidence is available in the administrative record to assess the pollutant (82930). LOE 82930 states that all of the exceedances occurred prior to August 2007. The DCTWRP discharge flows through Balboa Lake and the NDN processes to remove ammonia were completed in 2007.

Furthermore, the Fact Sheet for Decision ID 32913 corresponds to the ammonia listing for Los Angeles River Reach 4 (Sepulveda Dr. to Sepulveda Dam) and includes the decision to Delist from 303(d) list (being addressed by USEPA approved TMDL) based on the following Regional Board Staff Decision Recommendation: "RWQCB staff concludes that the water body-pollutant combination should be removed from the section 303(d) list because applicable water quality standards for the pollutant are not being exceeded." This decision is based on two LOEs (2513 and 86136). LOE 2513 states "A TMDL and implementation plan have been approved for this water segment-pollutant combination. The LA River Nitrogen TMDL was approved by RWQCB on August 19, 2003 and subsequently approved by USEPA on March 18, 2004." LOE 86136 finds that 0 of 152 samples exceeded the site-specific basin plan objective for total ammonia as nitrogen and only includes samples collected from 2008 to 2010 (which is after the date when the WRPs added the NDN treatment process and is inconsistent with the dates used in the assessments conducted for Los Angeles River Reaches 3 and 5, Bull Creek, and Wildlife Lake).

Through the installation and implementation of NDN treatment facilities and process optimization by the City of Los Angeles (and City of Burbank), the quality of the water in the LA River watershed has been demonstrated to be fully attaining the applicable water quality objectives for ammonia. The message from the City and the Regional Board should be that the cooperative process worked, and that the applicable water quality standards are now being attained. Instead, the 303(d) list does not reflect the water quality improvement. Given that the addition of the NDN treatment process to the WRPs has eliminated exceedances, the timeframe used to evaluate impairments due to ammonia should be made consistent with the timeframe used in LA River Reach

		<p>4 which would result in the same listing decision for each water body (i.e., Delist from 303(d) list [being addressed by USEPA approved TMDL]).</p> <p><b>Requested Action: Revise the following Decision IDs to a finding of nonimpairment and remove listings for ammonia from Category 5 (Appendix B) because the data used to conclude that the applicable water quality standards for the pollutant were exceeded are no longer representative of ammonia concentrations observed within the water bodies due to the installation and operation of NDN:</b></p> <ul style="list-style-type: none"> <li>- <b>Los Angeles River Reach 3 Decision ID 32947</b></li> <li>- <b>Los Angeles River Reach 5 Decision ID 32567</b></li> <li>- <b>Bull Creek Decision ID 60597</b></li> <li>- <b>Wildlife Lake Decision ID 66374</b></li> <li>- <b>Balboa Lake Decision ID 60378</b></li> </ul>
16.	<p>Los Angeles River Reach 1 (Estuary to Carson Street) and Los Angeles River Reach 2 (Carson to Figueroa Street) Ammonia</p>	<p>The Fact Sheet for Decision ID 32973 corresponds to the ammonia listing for Los Angeles River Reach 1 (Estuary to Carson Street) and is based on one LOE (2319), which does not contain any data. As such, the decision previously approved by the State Water Resources Control Board and the USEPA has not changed.</p> <p>The Fact Sheet for Decision ID 32911 corresponds to the ammonia listing for Los Angeles River Reach 2 (Carson to Figueroa Street) and is based on one LOE (2465) which does not contain any data. As such, the decision previously approved by the State Water Resources Control Board and the USEPA has not changed.</p> <p>In light of the information presented in the previous comment, it can be expected that conditions in Los Angeles River Reaches 1 and 2 since NDN was fully implemented (mid-2007) are consistent with what has been observed in Los Angeles River Reaches 3, 4, and 5 (i.e., no exceedances). The Listing Policy allows for the use of only recently collected data since implementation of the management measures. A review of the ammonia data analyzed as part of the Upper Los Angeles River (ULAR) Enhanced Watershed Management Program (EWMP) do not show any exceedances.</p> <p><b>Requested Action: Revise the following Decision IDs to a finding of nonimpairment and remove listings for ammonia from Category 5 (Appendix B) because the data used to conclude that the applicable water quality standards for the pollutant were exceeded are no longer representative of ammonia concentrations observed within the water bodies due to the installation and operation of NDN:</b></p> <ul style="list-style-type: none"> <li>- <b>Los Angeles River Reach 1 Decision ID 32973</b></li> <li>- <b>Los Angeles River Reach 2 Decision ID 32911</b></li> </ul>
17.	<p>Los Angeles/Long Beach Outer Harbor (inside breakwater) Toxicity</p>	<p>Decision ID 33930 Los Angeles/Long Beach Outer Harbor (inside breakwater) utilizes chronic toxicity data in LOE 86170 that were collected within the Terminal Island Water Reclamation Plant's (TIWRP) chronic mixing zone. As part of TIWRP's 2015 NPDES permit renewal, the Regional Board moved chronic toxicity testing requirements from HW24 and HW43 (which represent 78 samples considered in the Decision ID) to HW20 and HW62. As stated in the Regional Board's June 3, 2015 Response to Comments on the Tentative NPDES Permit:</p> <p><i>The current chronic toxicity monitoring locations are within the chronic toxicity mixing zone...The proposed receiving water monitoring locations HW20 and HW62 are located just outside the chronic mixing zone and represent the extent of the chronic mixing zone. These locations are appropriate because they better represent the chronic mixing zone and any chronic effects the discharge may have within the mixing zone. Acute toxicity will continue to be monitored within the chronic mixing</i></p>

		<p><i>zone near the discharge point. Monitoring of both the acute monitoring locations in addition to these new chronic toxicity monitoring locations will ensure proper assessment of toxicity in the Harbor within the influence of the discharge from TIWRP.</i></p> <p>Removing the 78 chronic toxicity data from LOE 86170 results in 34 acute data points that can be assessed. Of the 34 remaining data points, only 1 exceeds the toxicity threshold, which does not meet the listing requirements.</p> <p><b><i>Requested Action: Revise Decision ID 33930 for toxicity for Los Angeles/Long Beach Outer Harbor (inside breakwater) to Do Not List on 303(d) list (TMDL required list) and remove from Category 5 (Appendix B) to reflect the applicable data.</i></b></p>
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