

Los Angeles River Metals TMDL Special Studies Steering & Technical Committees

March 16, 2015

VIA ELECTRONIC MAIL

California Regional Water Quality Control Board
Los Angeles Region
ATTN: Jenny Newman
320 W. 4th Street, Suite 200
Los Angeles, CA 90013

Subject: Comments on the Proposed Amendment to the *Water Quality Control Plan - Los Angeles Region (Basin Plan) to Adopt Site-Specific Objectives for Lead and Copper in the Los Angeles River Watershed and to Revise the Total Maximum Daily Load (TMDL) for Metals in the Los Angeles River and Tributaries*

Dear Ms. Newman:

The Los Angeles River Watershed Metals Total Maximum Daily Load Steering Committee (Steering Committee) values the opportunity to provide comments on the Proposed Amendment to the *Water Quality Control Plan - Los Angeles Region (Basin Plan) to Adopt Site-Specific Objectives for Lead and Copper in the Los Angeles River Watershed and to Revise the Total Maximum Daily Load (TMDL) for Metals in the Los Angeles River and Tributaries*. The Steering Committee consists of the City of Signal Hill, City of Los Angeles, County of Los Angeles (County), Caltrans District Seven (Caltrans), and several of the 32 cities that funded the special studies that form the basis for the proposed amendments. The Steering Committee generally finds the proposed amendments consistent with the findings of these studies and recommends the Los Angeles Regional Water Quality Control Board's (Regional Board) adoption of the proposed amendments with consideration of the enclosed detailed comments.

The Steering Committee appreciates the efforts of Regional Board staff, particularly Ms. Jenny Newman whose commitment to work with stakeholders over the past five years has been commendable. This process began in March 2010, when the majority of the watershed's cities (32 of the 40), along with the County and Caltrans, voted to move forward with the Copper Water-Effect Ratio (WER) Study and Lead Recalculation Study to develop site-specific objectives (SSOs) in support of the TMDL. The development of SSOs is a recognized tool by the United States Environmental Protection Agency to account for the site-specific conditions that vary across the nation's waterbodies.

After approval of the technical work plan by the Regional Board Executive Officer on February 16, 2011, the studies began, triggering four years of scientific efforts. Over this timeframe, individuals from the funding agencies have participated on a Technical

Committee to provide input on the studies. Updates on the studies were provided to all of the cities, whether or not they provided funding, as the results of the studies will impact all of the watershed's cities. Collectively the funding agencies have spent approximately \$2,000,000 to develop and execute these studies; an investment we believe is warranted and demonstrative of our commitment to ensure full protection of beneficial uses.

The proposed SSOs, which were developed in a manner consistent with the California Toxics Rule, are equally protective of beneficial uses as the original TMDL targets which did not take into account aspects of the site specific characteristics of the waterbodies. With the SSOs, scarce public funds can be spent on achieving other water quality priorities in the watershed such as bacteria.

It is important, where supported by science, to reduce the funding obligations public agencies will face in meeting water quality requirements. A significant number of the watershed's communities and census tracts are identified by the State of California as communities with an annual Median Household Income (MHI) that is less than 80% of the Statewide MHI (See Cal/EnviroScreen 2.0). This includes the entire communities of Bell, Bell Gardens, Commerce, Compton, Cudahy, Huntington Park, Maywood, Paramount, South Gate and Vernon. In addition, several of the watershed's communities contain similarly challenged census tracts, including Alhambra, Downey, Glendale, El Monte, Montebello, Pico Rivera, Rosemead, South El Monte, Los Angeles and several unincorporated areas. Many of these communities face economic difficulties in providing even basic municipal services to their residents. While these communities are committed to protecting water quality, the decrease in costs resulting from the implementation of the SSOs via adoption of the proposed amendments will help protect these communities from the implementation of a number of BMPs that are not necessary. It is imperative the Regional Board utilize their discretion to adopt SSOs based on sound science and consistent with USEPA guidance and state and federal regulations.

The development of technical information to support the proposed amendment occurred through a thorough stakeholder and scientific review process. Technical review and public participation for these special studies consisted of the review of the Work Plan, work progress reports, and the Final Study Reports by an independent Technical Advisory Committee (TAC), and public participation and comments solicited through public workshops to discuss the Draft Work Plan and Draft Final Reports. The TAC conducted independent peer review of multiple versions of the Work Plan, preliminary data analysis, and the Final Study Reports and provided feedback on key questions raised by Regional Board staff. The TAC consisted of the following three unbiased experts:

- Steve Bay, Southern California Coastal Water Research Project (SCCWRP): As the Director of SCCWRP's Toxicology Laboratory, Dr. Bay has expertise in the design of scientific studies and interpretation of data, sediment toxicity test methods, including sediment quality assessment methods, Toxicity Identification Evaluation (TIE) methods, and evaluation of impacts of contaminants of emerging concern on fish.

- Tyler Linton, Great Lakes Environmental Center (GLEC): Dr. Linton's expertise includes the derivation and revision of national water quality criteria and other chemical toxicity benchmarks, conducting biological evaluations on USEPA water quality criteria for assessing effects on Federally-listed aquatic and aquatic-dependent species, site-specific studies for the determination of water quality criteria, acute and chronic toxicity testing for NPDES compliance, water chemistry analysis, fish and invertebrate culture, data management, and statistical analysis.
- Bob Santore, HydroQual/HDR: Mr. Santore's expertise includes site-specific criteria development using modeling approaches, WERs and recalculation methods, water quality and chemical modeling, and evaluation of the bioavailability and toxicity of metals to aquatic organisms, including the development of the Biotic Ligand Model.

In May 2009, a Draft Work Plan to conduct a Copper WER and Lead Recalculation Study was submitted to Regional Board staff and the TAC. The May 2009 Draft Work Plan was revised multiple times based on public, Regional Board staff, and TAC comments, and the Final Work Plan was approved by the Executive Officer of the Regional Board. Based on input from the public, Regional Board staff, and TAC, the scope of the study was expanded significantly to include additional sampling sites, sampling events, and analysis to evaluate the findings of the results. The changes resulted in more than doubling the number of copper WER samples collected. The intent of these changes was to increase confidence in determining scientifically accurate, precise, and protective SSOs for the Los Angeles River.

Multiple draft reports were developed and revised to present the results of the studies and evaluate the protectiveness of the results for the watershed. The final draft versions formed the basis for presentations at an open public workshop held on February 19, 2014. Subsequent to the workshop, the public was provided an opportunity to submit written comments on the final draft study reports. These comments were incorporated into the *Final Report Copper Water-Effect Ratio Study to Support Implementation of the Los Angeles River and Tributaries Metals TMDL* (Attachment A to the Revised TMDL Staff Report) and the *FINAL Lead Recalculation Report to Support Implementation of the Los Angeles River and Tributaries Metals TMDL* (Attachment B to the Revised TMDL Staff Report), which were submitted to Regional Board staff in April 2014. Subsequently, a draft report outlining the approach to implementing the results of the studies, as well as the protectiveness of the proposed SSOs, was developed and revised multiple times based on Regional Board and TAC comments before being finalized in January 2015.

The copper WER and lead recalculation studies followed established USEPA guidance and exceeded USEPA's minimum requirements. The study process sought input from a wide range of stakeholders during both Work Plan and Final Report development resulting in significant revisions and additional costs to ensure a scientifically defensible approach. Lastly, the independent TAC agreed that the Work Plan approach and conclusions of the Final Study Reports were consistent with USEPA guidance and resulted in site-specific and scientifically validated objectives protective of aquatic life.

Again, the Steering Committee generally finds the proposed amendments consistent with the findings of these studies and recommends the Regional Board's adoption of the proposed amendments with consideration of the enclosed detailed comments.

If you have any questions regarding our comments, please contact Ken Farfsing at (562) 989-7302 or at kfarfsing@cityofsignalhill.org.

Sincerely on behalf of the LA River Metals TMDL Implementation Steering Committee,



Shahram Kharaghani, Ph.D., P.E.,
BCEE
City of Los Angeles
Bureau of Sanitation



Kenneth C. Farfsing
Signal Hill City Manager
Steering Committee Chair

cc: City Managers, Los Angeles River Watershed
Ms. Gail Farber, Director, LACDPW
Mr. Mark Pestrella, Deputy Director, LACDPW
Ms. Angela George, LACDPW
Mr. Robert Wu, Caltrans District Seven
Steering Committee and Technical Committee Members

Technical Comment Matrix on the Proposed Amendment to the Water Quality Control Plan - Los Angeles Region (Basin Plan) to Adopt Site-Specific Objectives for Lead and Copper in the Los Angeles River Watershed and to Revise the TMDL for Metals in the Los Angeles River and Tributaries

Comment Number	Document Reference (Doc, Section, Pg.#)	Topic	Comment
1	General	General	<p>The Los Angeles River Metals TMDL Steering Committee appreciates the Los Angeles Regional Water Quality Control Board's (Regional Board) effort to update the copper and lead water quality objectives and associated TMDL requirements to reflect site-specific conditions. The proposed amendments to Chapter 3 and Chapter 7 generally reflect the detailed sampling effort and analysis presented in the April 2014 <i>Final Report Copper Water-Effect Ratio Study to Support Implementation of the Los Angeles River and Tributaries Metals TMDL</i> (Attachment A to the Revision of the Total Maximum Daily Load for Metals for the Los Angeles River and its Tributaries – Second Revision – Staff Report [Staff Report]), the April 2014 <i>Final Lead Recalculation Report to Support Implementation of the Los Angeles River and Tributaries Metals TMDL</i> (Attachment B to the Staff Report), and the January 2015 <i>Implementation of Results of the Los Angeles River Copper Water-Effect Ratio and Lead Recalculation Studies</i> (Attachment C to the Staff Report) completed to support appropriate objectives for the watershed.</p>
2	Ch. 3 BPA Proposed Changes to Basin Plan, Pg. 1	Copper WER should not be limited to Reach 1 of Verdugo Wash, Arroyo Seco, and Rio Hondo	<p>Copper WER sampling sites were located within the tributaries at the most downstream locations in the waterbody to represent conditions for the length of the tributary and to represent the water quality of tributary flows immediately prior to the point where the tributary meets the LA River mainstem. The approach is consistent with common practice, including the approved Metals TMDL Coordinated Monitoring Program. Comments were received requesting additional sites within the tributaries during the development of the work plan. In consultation with Regional Board staff and the Technical Advisory Committee (TAC) it was determined that the selected sites presented in the March 2010 <i>Work Plan for Recalculation and Water-Effect Ratio to Support Implementation of the Los Angeles River and Tributaries Metals TMDL</i> (Final Work Plan) were appropriate, and the approach was approved by the Regional Board Executive Officer. As such, the copper WERs should be extended to the upstream reaches of Verdugo Wash, Arroyo Seco, and Rio Hondo.</p>
3	Ch. 3 BPA Proposed Changes to Basin Plan, Pg. 1 Ch.7 BPA Numeric Target, Pg. 3 Ch.7 BPA Loading Capacity, Pg. 5 Ch.7 BPA WLAs, Pg. 9-10	Separate copper WERs should be applied to Burbank Western Channel upstream and downstream of the Burbank Water Reclamation Plant	<p>As outlined in the approved Final Work Plan, copper WER sampling sites were selected to bracket major inputs to the system from water reclamation plant (WRP) discharge. To support the appropriate characterization of Burbank Western Channel (BWC), two sampling sites were established, one site upstream of and one site downstream of the Burbank Water Reclamation Plant (BWRP). The inclusion of two sites on BWC was in response to comments made by Regional Board staff on the initial draft of the study work plan.</p> <p>As expected, the results of the WER testing indicated a difference in characteristics between these two sites because of the predominance of highly treated wastewater effluent in the BWC downstream of the BWRP. The WERs for the BWC upstream and downstream of the BWRP are 5.44 and 4.75, respectively. The two WERs were evaluated and found to be protective of their specific portions of the waterbody (see Section 7.4.3 of Attachment A to the Staff Report).</p>

Technical Comment Matrix on the Proposed Amendment to the Water Quality Control Plan - Los Angeles Region (Basin Plan) to Adopt Site-Specific Objectives for Lead and Copper in the Los Angeles River Watershed and to Revise the TMDL for Metals in the Los Angeles River and Tributaries

Comment Number	Document Reference (Doc, Section, Pg.#)	Topic	Comment
	Staff Report Section 5.1, Pg. 11		<p>Furthermore, an analysis was undertaken to evaluate whether copper loading capacities calculated using the higher upstream WER would support attainment of TMDL targets downstream of the BWRP. As presented in Attachment A to Attachment C to the Staff Report, the analysis showed that use of two separate WER values upstream and downstream of the BWRP would be fully protective of beneficial uses in both reaches. Specifically, use of separate WER values would result in zero exceedances of water quality objectives (with a confidence level of 99.2%) over any three-year period, consistent with the definition of attainment established for the analysis in consultation with Regional Board staff and the TAC.</p> <p>Given that the use of two reach-specific copper WER values was shown to be protective of both segments of the BWC, the site-specific WER of 5.44 should be applied specifically to the BWC upstream of the BWRP in Chapter 3 of the Basin Plan and the TMDL targets, loading capacity, and wasteload allocations should be revised accordingly.</p>
4	Ch.7 BPA WLAs, Pg. 9	Editorial	The superscript following the copper WER term for LA River Reach 5 should be 1 and not 2 in the Stormwater Permittee dry-weather WLAs table.
5	Ch.7 BPA WLAs, Pgs. 9 and 12	Requirements for MS4s to take actions to address increasing trends should be clarified	<p>The footnote for the stormwater Permittee dry and wet-weather WLAs requires action to be taken if an increasing trend is observed. However, there is a lack of clarity as to what constitutes an increasing trend and from what baseline the trend will be evaluated. Additionally, the concern with an increasing trend should be focused on conditions within the receiving water rather than individual discharges from the MS4. An example of a potentially more appropriate and clear approach was utilized for a copper WER adopted for portions of San Francisco Bay. In the San Francisco Bay example, triggers were established in order to detect a statistically significant change in dissolved copper concentration in the receiving water. Trigger values were determined using a power analysis consisting of a one-sided t-test of means with an alpha value of 0.05 (i.e., a 95% confidence). The San Francisco Bay approach establishes:</p> <ol style="list-style-type: none"> 1. A clear linkage to the receiving water and corresponding beneficial uses. 2. A statistically significant level of change above the baseline that would require action. 3. A definition of an increasing trend that uses an appropriate statistical method. <p>A similar approach is warranted and needed within the LA River watershed to ensure that MS4 Permittees and Regional Board staff can interpret the requirements consistently. We request that the footnote for the stormwater Permittee dry and wet-weather WLAs should be revised as follows:</p> <p>* For MS4 discharges regulated under this TMDL receiving waters with concentrations below WER-adjusted allocations at the time of TMDL adoption, MS4 Permittees shall track trends in</p>

Technical Comment Matrix on the Proposed Amendment to the Water Quality Control Plan - Los Angeles Region (Basin Plan) to Adopt Site-Specific Objectives for Lead and Copper in the Los Angeles River Watershed and to Revise the TMDL for Metals in the Los Angeles River and Tributaries

Comment Number	Document Reference (Doc, Section, Pg.#)	Topic	Comment
			<p>concentrations and loads and, where statistically significant increasing trends are observed in receiving waters, MS4 Permittees shall conduct an evaluation of the cause(s) of the increasing trends in concentration and/or load within the contributing drainage area(s). When determining whether an increasing trend is statistically significant, an appropriate statistical test (including a 95% confidence) and a minimum of the previous two years of historical data shall be utilized. If the statistically significant increasing trend is caused by the MS4 Permittees, the MS4 Permittees shall then identify the MS4 sources that are potentially causing the trend. MS4 Permittees shall report on trends and evaluations of the potential cause(s) of any statistically significant increasing trends in their annual reports. If the statistically significant increasing trend results in receiving water concentrations above baseline concentrations (defined as when the TMDL was developed in 2005), additional watershed control measures and corresponding time schedules for implementation to arrest the statistically significant increasing trend(s) may be required as part of the MS4 Permittees shall report on trends and evaluations of the cause(s) of any increasing trends in their annual reports and shall include actions to arrest increasing trends in their annual reports and/or as part of their adaptive management process in an approved Watershed Management Program or Enhanced Watershed Management Program. Further, regardless of the WER, Permit compliance with anti-degradation and antibacksliding requirements shall be documented in permit fact sheets.</p>
6	Ch.7 BPA WLAs, Pg. 10	Editorial	Suggest removal of what appears to be an unnecessary row with the number “5” in the Other dry-weather WLAs table.
7	Ch.7 BPA WLAs, Pg. 10	Dry-weather lead WLAs for other stormwater permittees	The lead TMDL target for Tujunga Wash is 83 ug/L multiplied by the WER. However, in the Other dry-weather WLAs table, the WLA for lead in Tujunga Wash is 102 ug/L multiplied by the WER. The 102 ug/L should be revised to 83 ug/L.
8	Ch.7 BPA WLAs, Pg. 10	Dry-weather lead WLAs for other stormwater permittees	The lead TMDL target for Verdugo Wash is 102 ug/L multiplied by the WER. However, in the Other dry-weather WLAs table, the WLA for lead in Verdugo Wash is 100 ug/L multiplied by the WER. The 100 ug/L should be revised to 102 ug/L.
9	Ch.7 BPA WLAs, Pg. 10	Editorial	In the Other dry-weather WLAs table, Verdugo Wash appears twice in the table. Suggest removal of the words “and Verdugo” from the “Reach 3 above LA-Glendale WRP” row.
10	Ch.7 BPA WLAs, Pg. 12	Revisions to wet weather MS4 WLAs for copper and lead are incorrectly shown	<p>In the MS4 wet-weather WLAs table, the WLA equation for copper was revised incorrectly. Additionally, the WLA equation for lead was not revised as needed. The subject WLA equations should read as follows:</p> <p>Copper $WER^{12} \times 1.5 \times 10^{-8} \times \text{daily volume (L)} - 9.5$ Lead $WER^1 \times 8.556 \times 10^{-8} \times \text{daily volume (L)} - 3.8532$</p>

Technical Comment Matrix on the Proposed Amendment to the Water Quality Control Plan - Los Angeles Region (Basin Plan) to Adopt Site-Specific Objectives for Lead and Copper in the Los Angeles River Watershed and to Revise the TMDL for Metals in the Los Angeles River and Tributaries

Comment Number	Document Reference (Doc, Section, Pg.#)	Topic	Comment
11	Ch.7 BPA WLAs, Pg. 12	Consistency between MS4 dry and wet-weather WLA footnotes	The footnote for the MS4 wet-weather WLAs is not consistent with the footnote for the Storm water Permittees' dry-weather WLAs. Please revise the wet-weather footnote to be consistent with the dry-weather footnote, inclusive of the requested revisions presented in comment #5.
12	Ch.7 BPA WLAs, Pg. 13	Consistency between MS4 and Caltrans dry and wet-weather WLA footnotes	The footnote for the Caltrans wet-weather WLAs is not consistent with the footnote for the Storm water Permittees' dry-weather WLAs. Please revise the wet-weather footnote to be consistent with the dry-weather footnote, inclusive of the requested revisions presented in comment #5.
13	Ch.7 BPA WLAs, Pg. 13	Editorial	The superscript following the copper WER term in the Individual General Construction or Industrial Permittees WLAs table should be 2 and not 1.
14	Ch.7 BPA Implementation, Pg. 15	Language referencing additional TMDL re-considerations should be retained	<p>Special studies that may serve to refine the estimate of loading capacity, waste load and/or load allocation, and other studies that may serve to optimize implementation efforts may still be conducted. As such, it is requested that in place of striking out the following sentence in its entirety:</p> <p style="padding-left: 40px;">The Regional Board shall reconsider this TMDL by January 11, 2011 based on additional data obtained from special studies.</p> <p>Modify the sentence as follows:</p> <p style="padding-left: 40px;">The Regional Board shall reconsider this TMDL by January 11, 2011 based on additional data obtained from special studies <u>five years after the effective date of this amendment in light of the findings of relevant studies, if available.</u></p> <p>OR</p> <p style="padding-left: 40px;">The Regional Board shall reconsider this TMDL by January 11, 2011 based on additional data obtained from special studies <u>in light of the findings of relevant studies as they become available.</u></p>
15	Ch.7 BPA Implementation, Pgs. 15 and 20	A clear process for revising WERs is needed	<p>If site-specific conditions change in the future, it is acknowledged that the WERs in the Basin Plan, and correspondingly in the TMDL, may need to be revised. However, such revisions should follow a similar process to the adoption of the WERs and revised TMDL. Language related to potential future modifications should clearly outline that revisions will be addressed through a basin planning process. As such, the following revisions are requested:</p> <p style="padding-left: 40px;">Ch. 7, Pg. 15: Site-specific WERs may be modified or revert back to a default of 1.0 <u>through a basin planning process</u> if data indicate that the WERs are not protective of either the beneficial uses of the waterbody to which they apply or downstream beneficial uses.</p>

Technical Comment Matrix on the Proposed Amendment to the Water Quality Control Plan - Los Angeles Region (Basin Plan) to Adopt Site-Specific Objectives for Lead and Copper in the Los Angeles River Watershed and to Revise the TMDL for Metals in the Los Angeles River and Tributaries

Comment Number	Document Reference (Doc, Section, Pg.#)	Topic	Comment
			<p>Ch. 7, Pg. 20: The Regional Board will evaluate the WER-based copper WLAs based on potential changes in the chemical characteristics of the water body that could impact the calculation or application of the WER and will revise the WERs and copper WLAs <u>through a basin planning process</u>, if necessary, to ensure protection of beneficial uses.</p>
16	Ch.7 BPA Implementation, Pgs. 18, 19, 23, 24, 25	Reference to jurisdictional groups should be replaced with WMP/EWMP groups	<p>Currently the TMDL refers to five jurisdictional groups. However, the approach to watershed management has been effectively re-defined by the 2012 LA County MS4 Permit, which established a Watershed Management Program (WMP)/Enhanced Watershed Management Program (EWMP) approach. Replacement of language referring to five jurisdictional groups with language referring to WMP/EWMP groups as well as associated WMPs/EWMPs and Coordinated Integrated Monitoring Programs (CIMPs) is recommended as follows:</p> <p>Ch. 7, Pg. 18: The implementation schedule for the MS4 and Caltrans permittees consists of a phased approach. The watershed is divided into five jurisdictional groups based on the subwatersheds of the tributaries that drain to each reach of the river, as presented in Table 7-13-3. Each jurisdictional group Permittee shall achieve compliance...within 22 years. Jurisdictional groups can be reorganized or subdivided upon approval by the Executive Officer.</p> <p>Ch. 7, Pg. 19: The MS4 and Caltrans storm water NPDES permittees in each jurisdictional group are jointly responsible for implementing the receiving water monitoring program <u>either jointly through the implementation of a Coordinated Integrated Monitoring Program, individually through an Integrated Monitoring Program, or a coordinated monitoring plan approved by the Regional Board Executive Officer.</u></p> <p>Ch. 7, Pg. 19: The MS4 and Caltrans storm water NPDES permittees in each jurisdictional group are jointly responsible for assessing progress in reducing pollutant loads to achieve the TMDL. Each jurisdictional group Permittee is required to submit for approval by the Executive Officer a coordinated monitoring plan, <u>a Coordinated Integrated Monitoring Program, or an Integrated Monitoring Program</u> that will demonstrate the effectiveness of the phased implementation schedule for this TMDL....</p> <p>Ch. 7, Pg. 25: Delete Table 7-13-3 or include a footnote indicating jurisdictional groups can be replaced based on individual Permittees following a WMP, EWMP, or individual approach to meeting the current MS4 Permit.</p>
17	Ch.7 BPA Implementation,	Demonstration of compliance with	As the purpose of the TMDL is to reduce metals loading to the LA River and its tributaries, and selection of implementation projects (i.e., BMPs) is based on the most efficient manner to reduce

Technical Comment Matrix on the Proposed Amendment to the Water Quality Control Plan - Los Angeles Region (Basin Plan) to Adopt Site-Specific Objectives for Lead and Copper in the Los Angeles River Watershed and to Revise the TMDL for Metals in the Los Angeles River and Tributaries

Comment Number	Document Reference (Doc, Section, Pg.#)	Topic	Comment
	Pgs. 18 and 24	interim WLAs via load reduction should be allowed for consistency with 2013 Ballona Creek Metals TMDL, Los Cerritos Channel Metals TMDL, and San Gabriel River Metals TMDL Basin Plan Amendments	<p>the overall loading of pollutants, it is requested that the TMDL also allow interim compliance to be assessed via demonstration of a percent reduction in the load from the MS4 drainage area. For example, instead of demonstrating that 50% or 75% of the drainage area met WLAs, a Permittee could demonstrate that the load from their MS4 drainage area was reduced by the same percentage. This approach was incorporated into the amendment to the Ballona Creek Metals TMDL adopted by the Regional Board in May 2013 and the Los Cerritos Channel Metals and San Gabriel River Metals TMDLs Implementation Plans adopted by the Regional Board in June 2013. The following revisions are requested to allow for a load reduction approach to meeting interim WLAs:</p> <p>Ch. 7, Pg. 18: The implementation schedule for the MS4 and Caltrans permittees consists of a phased approach. The watershed is divided into five jurisdictional groups based on the subwatersheds of the tributaries that drain to each reach of the river, as presented in Table 7-13-3. Each jurisdictional group Permittee shall achieve compliance in prescribed percentages of its subwatershed(s) (or of its watershed management group area if participating in a WMP or EWMP) or as a reduction from baseline loading, with total compliance to be achieved within 22 years. Jurisdictional groups can be reorganized or subdivided upon approval by the Executive Officer. Baseline is defined as when the TMDL was developed in 2005.</p> <p>Ch. 7, Pg. 24: Add a new interim compliance milestone at the effective date of the amended TMDL and include the following: Each WMP Group, EWMP Group, or individual Permittee shall demonstrate that 50% of its total drainage area served by the storm drain system is effectively meeting the dry-weather waste load allocations and 25% of its total drainage area served by the storm drain system is effectively meeting the wet-weather waste load allocations. Alternatively, Permittees shall attain a 50% reduction during dry-weather and a 25% reduction during wet-weather in the difference between the baseline loadings and WLAs.</p> <p>Ch. 7, Pg. 24, January 11, 2020 compliance date: Each jurisdictional group-WMP Group, EWMP Group, or individual Permittee shall demonstrate that 75% of the group's its total drainage area served by the storm drain system is effectively meeting the dry-weather WLAs. Alternatively, Permittees shall attain a 75% reduction during dry-weather in the difference between the baseline loadings and WLAs.</p> <p>Ch. 7, Pg. 24, January 11, 2024 compliance date: Each jurisdictional group-WMP Group, EWMP Group, or individual Permittee shall demonstrate that 100% of the group's its total drainage area served by the storm drain system is effectively meeting the dry-weather WLAs and 50% of the group's its total drainage area served by the storm drain system is</p>

Technical Comment Matrix on the Proposed Amendment to the Water Quality Control Plan - Los Angeles Region (Basin Plan) to Adopt Site-Specific Objectives for Lead and Copper in the Los Angeles River Watershed and to Revise the TMDL for Metals in the Los Angeles River and Tributaries

Comment Number	Document Reference (Doc, Section, Pg.#)	Topic	Comment
			<p>effectively meeting the wet-weather WLAs. <u>Alternatively, permittees shall attain a 100% reduction during dry-weather and a 50% reduction during wet-weather in the difference between the baseline loadings and WLAs.</u></p> <p>Ch. 7, Pg. 24, January 11, 2028 compliance date: Each jurisdictional group <u>WMP Group, EWMP Group, or individual Permittee</u> shall demonstrate that 100% of the group's <u>its</u> total drainage area served by the storm drain system is effectively meeting both the dry-weather and wet-weather WLAs. <u>Alternatively, Permittees shall attain a 100% reduction during both dry and wet-weather in the difference between the baseline loadings and WLAs.</u></p>
18	Ch.7 BPA Implementation, Pg. 18	Additional compliance language should be included for consistency with the 2013 Ballona Creek Metals TMDL amendment	<p>The ability to demonstrate compliance via the development of an approved watershed management program that provides a quantitative demonstration that control measures and BMPs will achieve WLAs per the TMDL schedule should be applicable to WQBELs. Permittees that make a good faith effort to implement measures and BMPs that are expected to result in attainment of the WQBELs should not be found in violation as they adaptively manage their programs consistent with an approved process. Language to this effect was included in the 2013 amendment to the Ballona Creek Metals TMDL. The following language should be incorporated:</p> <p>Ch. 7, Pg. 18: Each municipality and permittee will be required to meet the storm water waste load allocations shared by the MS4 and Caltrans permittees at the designated TMDL effectiveness monitoring points. <u>If permittees provide a quantitative demonstration as part of a watershed management program plan that control measures and BMPs will achieve WLAs consistent with the schedule in Table 7-13.2, then compliance with WQBELs may be demonstrated by implementation of those control measures and BMPs, subject to Executive Officer approval.</u> A phased implementation approach, using a combination of non-structural and structural BMPs may be used to achieve compliance with the waste load allocations. The administrative record and the fact sheets for the MS4 and Caltrans storm water permits must provide reasonable assurance that the BMPs selected will be sufficient to implement the waste load allocations.</p>
19	Ch.7 BPA Implementation, Pg. 18	Attaining the dissolved water quality criteria should constitute compliance for consistency with the 2013 Ballona Creek Metals TMDL amendment	<p>The water quality criteria of interest are established in the California Toxics Rule (CTR) as dissolved metals criteria as the dissolved metal more closely approximates the bioavailable fraction of the metal in the water column than does the total recoverable metal. It is understood that the TMDL targets and WLAs are established as total recoverable metals in most cases (see 40 CFR 122.45(c)) except when an effluent guideline specifies the limitation in another form of the metal, the approved analytical methods measure only dissolved metal, or the permit writer expresses a metal's limit in another form (e.g., dissolved, specific valence, or total) when required to carry out provisions of the Clean Water Act. As shown in Table 1, attainment of a dissolved metal target</p>

Technical Comment Matrix on the Proposed Amendment to the Water Quality Control Plan - Los Angeles Region (Basin Plan) to Adopt Site-Specific Objectives for Lead and Copper in the Los Angeles River Watershed and to Revise the TMDL for Metals in the Los Angeles River and Tributaries

Comment Number	Document Reference (Doc, Section, Pg.#)	Topic	Comment																																		
			<p>often occurs even when the total metal target is not attained.</p> <p>Table 1. Comparison of Dissolved and Total Metals Exceedances During Wet Weather in the Los Angeles River Watershed Using the Revised TMDL Numeric Targets (2001-2013)</p> <table border="1" data-bbox="856 500 1843 704"> <thead> <tr> <th rowspan="2"></th> <th colspan="2">Copper</th> <th colspan="2">Lead</th> <th colspan="2">Zinc</th> </tr> <tr> <th>Dis</th> <th>Tot</th> <th>Dis</th> <th>Tot</th> <th>Dis</th> <th>Tot</th> </tr> </thead> <tbody> <tr> <td>Number of Samples</td> <td>250</td> <td>255</td> <td>296</td> <td>303</td> <td>298</td> <td>303</td> </tr> <tr> <td>Number of Exceedances</td> <td>6</td> <td>36</td> <td>1</td> <td>14</td> <td>36</td> <td>120</td> </tr> <tr> <td>% Exceedance</td> <td>2.4%</td> <td>14%</td> <td>0.3%</td> <td>4.6%</td> <td>12%</td> <td>40%</td> </tr> </tbody> </table> <p>This creates a situation where the underlying applicable criterion (i.e., dissolved metal criterion) is met, but a Permittee may be found out of compliance with a total metal limitation. This issue came up during the adoption hearing for the 2013 amendment to the Ballona Creek Metals TMDL. At the adoption hearing, the Regional Board directed Regional Board staff to address this issue, and the approach taken was to incorporate the following language into the Ballona Creek Metals TMDL to indicate that attainment of the dissolved numeric targets could be used to demonstrate compliance: “Alternatively, permittees may be deemed in compliance with WQBELs if they demonstrate compliance with dissolved numeric targets in dry and wet-weather in the applicable receiving water.”</p> <p>Given the same issue exists in the LA River Metals TMDL, it should be addressed in the same manner for consistency with the direction given by the Regional Board at the Ballona Creek Metals TMDL adoption hearing. Consistency amongst TMDLs is often cited within the region as justification for inclusion of elements within a reopened TMDL.^{1,2} As the LA River Metals TMDL does not explicitly state the dissolved numeric targets, the following language from the Ballona Creek Metals TMDL (which has been slightly modified for clarity) should be incorporated:</p> <p>Ch. 7, Pg. 18: A phased implementation approach, using a combination of non-structural and</p>		Copper		Lead		Zinc		Dis	Tot	Dis	Tot	Dis	Tot	Number of Samples	250	255	296	303	298	303	Number of Exceedances	6	36	1	14	36	120	% Exceedance	2.4%	14%	0.3%	4.6%	12%	40%
	Copper		Lead		Zinc																																
	Dis	Tot	Dis	Tot	Dis	Tot																															
Number of Samples	250	255	296	303	298	303																															
Number of Exceedances	6	36	1	14	36	120																															
% Exceedance	2.4%	14%	0.3%	4.6%	12%	40%																															

¹ California Regional Water Quality Control Board, Los Angeles Region. 2008. *Calleguas Creek Watershed Nitrogen Compounds and Related Effects TMDL*. Staff Report. July 2008.

² California Regional Water Quality Control Board, Los Angeles Region. 2013. *Reconsideration of Certain Technical Matters of the Ballona Creek Estuary Toxics TMDL and Ballona Creek Metals TMDL*. Staff Report. December 2013.

Technical Comment Matrix on the Proposed Amendment to the Water Quality Control Plan - Los Angeles Region (Basin Plan) to Adopt Site-Specific Objectives for Lead and Copper in the Los Angeles River Watershed and to Revise the TMDL for Metals in the Los Angeles River and Tributaries

Comment Number	Document Reference (Doc, Section, Pg.#)	Topic	Comment																																																																											
			<p>structural BMPs may be used to achieve compliance with the waste load allocations. The administrative record and the fact sheets for the MS4 and Caltrans storm water permits must provide reasonable assurance that the BMPs selected will be sufficient to implement the waste load allocations. <u>Alternatively, permittees may be deemed in compliance with WQBELs if they demonstrate compliance with dissolved numeric targets (i.e. the total recoverable numeric targets multiplied by the corresponding conversion factors) in the applicable receiving water.</u></p> <p>If Regional Board prefer to take the Ballona Creek Metals TMDL approach by including dissolved numeric targets directly into the TMDL, the following revisions should be incorporated:</p> <p>Ch. 7, Pg. 2: Numeric water quality targets are based on the numeric water quality criteria established by the California Toxics Rule (CTR). The targets are expressed in terms of <u>dissolved and total recoverable metals</u>.</p> <p>Ch. 7, Pg. 3: Add a new dry-weather dissolved numeric targets table prior to the dry-weather conversion factors table:</p> <p>Dry-weather numeric targets (μg dissolved metals/L)</p> <table border="1" data-bbox="892 852 1921 1323"> <thead> <tr> <th></th> <th>Cu</th> <th>Pb</th> <th>Zn</th> <th>Se</th> </tr> </thead> <tbody> <tr> <td>Reach 5, 6 and Bell Creek</td> <td>WER¹ x 29</td> <td>WER¹ x 100</td> <td></td> <td>5</td> </tr> <tr> <td>Reach 4</td> <td>WER² x 19</td> <td>WER¹ x 55</td> <td></td> <td></td> </tr> <tr> <td>Tujunga Wash</td> <td>WER³ x 19</td> <td>WER¹ x 55</td> <td></td> <td></td> </tr> <tr> <td>Reach 3 above LA-Glendale WRP</td> <td>WER² x 22</td> <td>WER¹ x 65</td> <td></td> <td></td> </tr> <tr> <td>Reach 3 below LA-Glendale WRP</td> <td>WER² x 21</td> <td>WER¹ x 64</td> <td></td> <td></td> </tr> <tr> <td>Verdugo Wash</td> <td>WER⁴ x 22</td> <td>WER¹ x 65</td> <td></td> <td></td> </tr> <tr> <td>Burbank Western Channel (above WRP)</td> <td>WER⁵ x 25</td> <td>WER¹ x 78</td> <td></td> <td></td> </tr> <tr> <td>Burbank Western Channel (below WRP)</td> <td>WER⁶ x 18</td> <td>WER¹ x 50</td> <td></td> <td></td> </tr> <tr> <td>Reach 2</td> <td>WER² x 21</td> <td>WER¹ x 61</td> <td></td> <td></td> </tr> <tr> <td>Arroyo Seco</td> <td>WER⁷ x 21</td> <td>WER¹ x 61</td> <td></td> <td></td> </tr> <tr> <td>Reach 1</td> <td>WER² x 22</td> <td>WER¹ x 65</td> <td></td> <td></td> </tr> <tr> <td>Compton Creek</td> <td>WER⁸ x 18</td> <td>WER¹ x 49</td> <td></td> <td></td> </tr> <tr> <td>Rio Hondo Reach 1</td> <td>WER⁹ x 12</td> <td>WER¹ x 27</td> <td>WER¹ x 128</td> <td></td> </tr> <tr> <td>Monrovia Canyon</td> <td></td> <td>WER¹ x 45</td> <td></td> <td></td> </tr> </tbody> </table> <p>¹ WER(s) have a default value of 1.0 unless site-specific WER(s) are approved. ² The WER for this constituent is 3.97. ³ The WER for this constituent is 8.28.</p>		Cu	Pb	Zn	Se	Reach 5, 6 and Bell Creek	WER ¹ x 29	WER ¹ x 100		5	Reach 4	WER ² x 19	WER ¹ x 55			Tujunga Wash	WER ³ x 19	WER ¹ x 55			Reach 3 above LA-Glendale WRP	WER ² x 22	WER ¹ x 65			Reach 3 below LA-Glendale WRP	WER ² x 21	WER ¹ x 64			Verdugo Wash	WER ⁴ x 22	WER ¹ x 65			Burbank Western Channel (above WRP)	WER ⁵ x 25	WER ¹ x 78			Burbank Western Channel (below WRP)	WER ⁶ x 18	WER ¹ x 50			Reach 2	WER ² x 21	WER ¹ x 61			Arroyo Seco	WER ⁷ x 21	WER ¹ x 61			Reach 1	WER ² x 22	WER ¹ x 65			Compton Creek	WER ⁸ x 18	WER ¹ x 49			Rio Hondo Reach 1	WER ⁹ x 12	WER ¹ x 27	WER ¹ x 128		Monrovia Canyon		WER ¹ x 45		
	Cu	Pb	Zn	Se																																																																										
Reach 5, 6 and Bell Creek	WER ¹ x 29	WER ¹ x 100		5																																																																										
Reach 4	WER ² x 19	WER ¹ x 55																																																																												
Tujunga Wash	WER ³ x 19	WER ¹ x 55																																																																												
Reach 3 above LA-Glendale WRP	WER ² x 22	WER ¹ x 65																																																																												
Reach 3 below LA-Glendale WRP	WER ² x 21	WER ¹ x 64																																																																												
Verdugo Wash	WER ⁴ x 22	WER ¹ x 65																																																																												
Burbank Western Channel (above WRP)	WER ⁵ x 25	WER ¹ x 78																																																																												
Burbank Western Channel (below WRP)	WER ⁶ x 18	WER ¹ x 50																																																																												
Reach 2	WER ² x 21	WER ¹ x 61																																																																												
Arroyo Seco	WER ⁷ x 21	WER ¹ x 61																																																																												
Reach 1	WER ² x 22	WER ¹ x 65																																																																												
Compton Creek	WER ⁸ x 18	WER ¹ x 49																																																																												
Rio Hondo Reach 1	WER ⁹ x 12	WER ¹ x 27	WER ¹ x 128																																																																											
Monrovia Canyon		WER ¹ x 45																																																																												

Technical Comment Matrix on the Proposed Amendment to the Water Quality Control Plan - Los Angeles Region (Basin Plan) to Adopt Site-Specific Objectives for Lead and Copper in the Los Angeles River Watershed and to Revise the TMDL for Metals in the Los Angeles River and Tributaries

Comment Number	Document Reference (Doc, Section, Pg.#)	Topic	Comment										
			<p>⁴The WER for this constituent is 2.18. ⁵The WER for this constituent is 5.44. ⁶The WER for this constituent is 4.75. ⁷The WER for this constituent is 1.32. ⁸The WER for this constituent is 3.36. ⁹The WER for this constituent is 9.69.</p> <p>Ch. 7, Pg. 4: Add a new wet-weather dissolved numeric targets table prior to the wet-weather conversion factors table:</p> <p>Wet-weather numeric targets (µg dissolved metals/L)</p> <table border="1" data-bbox="890 672 1906 737"> <thead> <tr> <th>Cd</th> <th>Cu</th> <th>Pb</th> <th>Zn</th> <th>Se</th> </tr> </thead> <tbody> <tr> <td>WER¹ x 3</td> <td>WER² x 11</td> <td>WER¹ x 77</td> <td>WER¹ x 97</td> <td>5</td> </tr> </tbody> </table> <p>¹ WER(s) have a default value of 1.0 unless site-specific WER(s) are approved. ² The WER for this constituent is 3.97.</p> <p>Ch. 7, Pg. 18: A phased implementation approach, using a combination of non-structural and structural BMPs may be used to achieve compliance with the waste load allocations. The administrative record and the fact sheets for the MS4 and Caltrans storm water permits must provide reasonable assurance that the BMPs selected will be sufficient to implement the waste load allocations. <u>Alternatively, permittees may be deemed in compliance with WQBELs if they demonstrate compliance with dissolved numeric targets in the applicable receiving water.</u></p>	Cd	Cu	Pb	Zn	Se	WER ¹ x 3	WER ² x 11	WER ¹ x 77	WER ¹ x 97	5
Cd	Cu	Pb	Zn	Se									
WER ¹ x 3	WER ² x 11	WER ¹ x 77	WER ¹ x 97	5									
20	Ch.7 BPA Compliance Monitoring, Pg. 18-19	Language should be included that allows the Regional Board Executive Officer to modify the monitoring requirements through approval of an Integrated Monitoring Program and/or Coordinated Integrated Monitoring Program	<p>To increase the cost efficiency and effectiveness of the monitoring program, CIMPs prepared in compliance with the Los Angeles County MS4 Permit may develop and utilize alternative approaches to meet the primary objectives of the Los Angeles County MS4 Permit Monitoring Program. The primary objectives of the Los Angeles County MS4 Permit Monitoring Program include assessing the chemical, physical, and biological impacts of discharges from the MS4 on receiving waters and assessing compliance with receiving water limitations and WQBELs established to implement TMDL wet weather and dry WLAs. These objectives are consistent with the objectives of the monitoring recommendations and requirements specified in the TMDL BPA. Given that the objectives of the Los Angeles County MS4 Permit Monitoring Program and the TMDL BPA are consistent, CIMPs approved by the Regional Board Executive Officer will meet the objectives of both programs. As such, the following language is requested for inclusion to support the integration of MS4 Permit and TMDL monitoring:</p> <p>Ch. 7, Pg. 18-19: Effective monitoring will be necessary to assess the condition of the Los</p>										

Technical Comment Matrix on the Proposed Amendment to the Water Quality Control Plan - Los Angeles Region (Basin Plan) to Adopt Site-Specific Objectives for Lead and Copper in the Los Angeles River Watershed and to Revise the TMDL for Metals in the Los Angeles River and Tributaries

Comment Number	Document Reference (Doc, Section, Pg.#)	Topic	Comment
			<p>Angeles River and its tributaries and to assess the on-going effectiveness of efforts by dischargers to reduce metals loading to the Los Angeles River. Special studies may also be appropriate to provide further information about new data, new or alternative sources, and revised scientific assumptions. Below the Regional Board identifies the various goals of monitoring efforts and studies. The programs, reports, and studies will be developed in response to subsequent orders issued by the Executive Officer. <u>The recommendations and requirements listed below can be modified within Integrated Monitoring Programs and/or Coordinated Integrated Monitoring Programs approved by the Executive Officer.</u></p>
21	Ch.7 BPA Special Studies, Pg. 21	Language referencing additional TMDL re-considerations should be updated	<p>Special studies that may serve to refine the estimate of loading capacity, waste load and/or load allocation, and other studies that may serve to optimize implementation efforts may still be conducted. The text referring to the TMDL reconsideration should be updated to reflect the potential for future re-considerations as follows:</p> <p>The Regional Board will re-consider the TMDL by January-11, 2011 in light of the findings of these studies <u>as they become available.</u></p>