November 25, 2014

Lower Los Angeles River Watershed Management Group
(See Distribution List)

REVIEW OF THE LOWER LOS ANGELES RIVER WATERSHED MANAGEMENT GROUP'S DRAFT COORDINATED INTEGRATED MONITORING PROGRAM, PURSUANT TO PART VI.B AND ATTACHMENT E PART IV.B OF THE LOS ANGELES COUNTY MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) PERMIT (NPDES PERMIT NO. CAS004001; ORDER NO. R4-2012-0175) AND PART VII.B AND ATTACHMENT E, PART IV.B OF THE CITY OF LONG BEACH MS4 PERMIT (NPDES PERMIT NO. CAS004003; ORDER NO. R4-2014-0024)

Dear Lower Los Angeles River Watershed Management Group:

The Regional Water Board has reviewed the draft Coordinated Integrated Monitoring Program (CIMP) submitted on June 27, 2014 by the Lower Los Angeles River (LLAR) Watershed Management Group (WMG). This program was submitted pursuant to the provisions of NPDES Permit No. CAS004001 (Order No. R4-2012-0175), which authorizes discharges from the municipal separate storm sewer system (MS4) operated by 86 municipal Permittees within Los Angeles County (hereafter, LA County MS4 Permit).

The LA County MS4 Permit allows Permittees the option to develop and implement, in coordination with an approved Watershed Management Program per Part VI.C, a customized monitoring program that achieves the five Primary Objectives set forth in Part II.A of Attachment E and includes the elements set forth in Part II.E of Attachment E. Customized monitoring programs may be developed on an individual jurisdictional basis, referred to as an Integrated Monitoring Program (IMP), or on a watershed basis, referred to as a CIMP. These programs must be approved by the Executive Officer of the Regional Water Board.

NPDES Permit No. CAS004003 (Order No. R4-2014-0024) authorizes discharges from the MS4 operated by the City of Long Beach (hereafter, Long Beach MS4 Permit). The Long Beach MS4 Permit similarly allows the City of Long Beach to develop either an IMP or CIMP to implement Permit requirements, with the option of collaborating with LA County MS4 Permit Permittees. For simplicity, this letter and its enclosures cite provisions in the LA County MS4 Permit even though the City of Long Beach is a member of the LLAR WMG and is permitted under its own individual Permit.

The Regional Water Board has reviewed the draft CIMP and has determined that, for the most part, the CIMP includes the elements set forth in Part II.E and will achieve the Primary Objectives set forth in Part II.A of Attachment E of the LA County MS4 Permit and the

corresponding provisions of the Long Beach MS4 Permit. However, some additions and revisions to the CIMP are necessary. The Regional Water Board's comments on the CIMP, including detailed information concerning necessary additions and revisions to the CIMP, are found in Enclosure 1 and Enclosure 2.

Please make the necessary additions and revisions to the CIMP as identified in the enclosures to this letter and submit the revised CIMP as soon as possible and no later than **February 23, 2015.** The revised CIMP must be submitted to losangeles@waterboards.ca.gov with the subject line "LA County MS4 Permit – Revised LLAR CIMP" with a copy to Ivar.Ridgeway@waterboards.ca.gov.

Upon approval of the revised CIMP by the Executive Officer, the Permittees must prepare to commence their monitoring program within 90 days. If the necessary revisions are not made, the Permittees must comply with the Monitoring and Reporting Program (MRP) and future revisions thereto, in Attachment E of the LA County MS4 Permit and corresponding provisions in the Long Beach MS4 Permit.

Until the Permittees' CIMP is approved by the Executive Officer, the monitoring requirements pursuant to Order No. 01-182 and MRP CI 6948, Order No. 99-060 and MRP CI 8052 and pursuant to approved TMDL monitoring plans shall remain in effect for the Permittees.

If you have any questions, please contact Mr. Ivar Ridgeway, Chief of the Storm Water Permitting Unit, by electronic mail at Ivar.Ridgeway@waterboards.ca.gov or by phone at (213) 620-2150.

Sincerely,

for Samuel Unger, P.E.
Executive Officer

Enclosures:
Enclosure 1 – Summary of Comments and Necessary Revisions to CIMP
Enclosure 2 – Comments on Aquatic Toxicity Monitoring
Lower Los Angeles River WMG Distribution List

cc: John Hunter, John L. Hunter and Associates, Inc.
Marty Stevenson, Kinnetic Laboratories, Inc.

Enclosure 1 – Summary of Comments and Necessary Revisions to CIMP

Lower Los Angeles River Watershed Management Group

CIMP Reference	MRP Element/ Reference (Attachment E)	Comment and Necessary Revision
Receiving Water Monitoring		
Section 3.1.2	Section V (TMDL Monitoring)	The CIMP indicates that the coordinated monitoring plan (CMP) for the LA River Metals TMDL includes monitoring of five sites within the LLAR, one of which is proposed to be discontinued, and according to the CIMP, this would leave three remaining sites. Section 8.2 of the CIMP indicates that four sites in the CMP are located within the LLAR; the figure of "five" in section 3.1.2 may be a typographical error, and if so, should be corrected.
Section 3.1.2	Section V (TMDL Monitoring)	Section 3.1.2 of the CIMP mentions monitoring in the estuary required under the Long Beach City Beaches and Los Angeles River Estuary TMDLs for Indicator Bacteria. Monitoring required under the Harbor Toxics TMDL is also mentioned. The Group indicates that this will entail additional monitoring at the S10 site to quantify metals, DDT, PCBs, and PAHs associated with suspended particles. The Group indicates that this monitoring will complement monitoring within the Harbor waters and estuary that is already included in the Greater Harbor Waters Regional Monitoring Coalition. More clarity is needed on the integration/coordination of these monitoring efforts as they relate to meeting the primary objectives and required elements of the LA County MS4 Permit's monitoring and reporting program.
Section 3.1.2	Section V (TMDL Monitoring)	Table 3-2 indicates that the LA River Nitrogen Compounds and Related Effects TMDL has not yet been approved. The original TMDL was adopted by the Regional Water Board on July 10, 2003 and became effective on March 23, 2004. It was recently revised by the Regional Water Board on December 6, 2012 and became effective on August 7, 2014; the CIMP needs to be updated accordingly. It would also be more useful to replace the Regional Water Board approval dates in Table 3-2 with the TMDL effective dates instead. Effective dates are available on the Regional Water Board's website at: http://www.waterboards.ca.gov/losangeles/water_issues/programs/tmdl/tmdl_list.shtml
Section 8.2	Section V (TMDL Monitoring)	The CIMP proposes to discontinue monitoring at LAR1-11, which had been included in the CMP approved by the Executive Officer for the LA River Metals TMDL. The CIMP contends that monitoring data show LAR1-11 tends to duplicate LAR1-13 and is not necessary; however, the CIMP should include monitoring data from these sites to better support this claim. The CIMP also notes that LAR1-11 is located just above the confluence of Compton Creek with the LA River and marks the lower end of Reach 2, while LAR1-13 is below the confluence and reflects pollutant contributions from Compton Creek. As such, used in conjuction with LAR1-13, LAR1-11 could help to measure the effects of

CIMP Reference	MRP Element/ Reference (Attachment E)	Comment and Necessary Revision
		BMP programs specifically for the Compton Creek drainage area. This factor should also be considered. For these reasons, the proposal to discontinue monitoring at LAR1-11 needs to be reconsidered and further justification provided if the Group still proposes to discontinue monitoring at LAR1-11.
Section 8.3	Section V (TMDL Monitoring)	The CIMP proposes quarterly monitoring for bacteria rather than monthly monitoring as required by a Basin Plan Amendment (Resolution No. R10-007). For consistency with the Basin Plan, the CIMP must be revised to include monthly (rather than quarterly) sampling.
Outfall-Based Monitoring		
Section 3.2	Part VIII.A.2.b (Representative Monitoring)	The MRP requires stormwater outfall-based monitoring that is representative of the land uses in the Permittees' jurisdictions. It also requires monitoring at a minimum of one major outfall in each HUC 12 drainage area. Appendix A provides a description of the four proposed monitoring locations; however, no land use information is provided for three of the four sites, and for LLAR2, the discussion is unclear regarding what the site is actually draining. Possibly the map in Figure 9-1 is intended to show the drainage areas of the four sites; however this should be clarified. Information is also needed concerning land use upstream of all the sites and within the permitted area overall to show that the monitoring locations would be representative of area permitted. Finally, section 3.2 notes that only two of three HUC 12 drainage areas in the watershed management area would be addressed by the draft CIMP and that the LLAR Group "understands" that the remaining drainage area would be covered by a neighboring group; this understanding needs to be confirmed in the final CIMP. Additionally, the table on page 10 seems inconsistent with the text. The text states that one outfall site will be located within the Alhambra Wash-Rio Hondo HUC area, however the table indicates that this HUC area is being monitored "By others." On the other hand, the text indicates that the Chavez Ravine-Los Angeles River HUC area will be monitored by the LA River Upper Reach 2 WMG, but the table indicates that the LLAR4 site addresses this HUC area.
Sections 3.2 and 4	Part VIII.B.1.a (Monitoring Frequency)	The MRP requires stormwater outfall monitoring at a minimum frequency of three times per year. The draft CIMP proposes to phase-in stormwater outfall monitoring over a three-year period, stating that two sites will be monitored in the first year. The CIMP delays monitoring at two of the outfalls until storm seasons 2016-17 and 2017-18, respectively. One of the four outfall sites, LLAR2 within the

CIMP Reference	MRP Element/ Reference (Attachment E)	Comment and Necessary Revision
		Compton Creek/LA River HUC area, is an existing monitoring site. As such, the CIMP should be revised to ensure that the three new sites are phased-in over a two-year period instead of a three-year period. This will ensure that all four sites are being monitored by the 2016-17 storm season. The CIMP also needs to specify which sites will be monitored in the first year and should ensure that the site within the Alhambra Wash-Rio Hondo HUC area is one of the two sites established in the first year so that monitoring data is collected from both principal HUC-12 areas in the first year.
Section 5	Part XIV (Monitoring Provisions)	Monitoring for PCBs in sediment or water (section 5.4 of the CIMP) should be reported as the summation of a minimum of 40 (and preferably at least 50) congeners. See Table C8 in the state's Surface Water Ambient Monitoring Program's Quality Assurance Program Plan (Page 72 of Appendix C), which can be downloaded at http://www.waterboards.ca.gov/water_issues/programs/swamp/docs/qapp/qaprp082209.pdf for guidance. It is preferable samples be analyzed using EPA Methods 8270 or 1668C (as appropriate), and High Resolution Mass Spectrometry. The CIMP in section 5.5 should utilize Method 245.7 or 1631E for mercury to get sufficiently sensitive minimum levels for analytical results to be compared with the water quality objective.
Section 10	Part IX.B.2 (Non-Storm Water Screening)	The MRP requires at least one re-assessment of the non-stormwater outfall-based screening and monitoring program during the permit term. A commitment for such a re-assessment was not found in the CIMP and needs to be added.
Section 10	Part IX.H (Non-Storm Water Sampling Methods)	The MRP includes specific methods for sampling of non-stormwater discharges. A commitment to follow these methods was not found in the CIMP and needs to be added.
Section 10.1	Parts IX.E and IX.G (Non-Storm Water Monitoring)	The MRP requires monitoring of significant non-stormwater discharges. Section 10.1 of the CIMP would exclude from further review outfalls less than 36 inches in diameter without evidence of industrial activities upstream. Outfalls without industrial activities upstream could still be significant sources of non-stormwater discharges and should not necessarily be excluded from further review. Rather the standard prioritization criteria in Section 10.1 should be used for all outfalls, particular those that discharge to a receiving water subject to a TMDL.
Section 10.3	VII.A.1-11 (MS4 Map and Outfalls)	The MRP includes a list of 11 requirements related to MS4 mapping, outfalls and land use within the watershed management area. These requirements are discussed in section 10.3 of the CIMP. Some of the

CIMP Reference	MRP Element/ Reference (Attachment E)	Comment and Necessary Revision
		required information was provided and some will be acquired on an ongoing basis such as identification of outfalls with significant non-stormwater discharges. However, information in response to items #3 (land use overlay) and #10 (outfall catchment areas) was not found and should be provided with the final CIMP where readily available or a schedule for providing the information should be proposed. The CIMP should also provide a reference for the source of the GIS-based data and information presented in the CIMP.
Section 10.3	IX.D.4 (MS4 Outfall Inventory)	The MRP requires an annual update of the inventory of outfalls with significant non-stormwater discharges based on the most recent information. A commitment for this update was not found in the CIMP and needs to be added.
Appendix C	Part VIII.C.1-2 (Sampling Methods)	Appendix C is missing from the draft CIMP; it appears to be intended to provide additional information concerning sampling methods and needs to be included in the final CIMP.

ENCLOSURE 2
COMMENTS ON AQUATIC TOXICITY TESTING
LOWER LOS ANGELES RIVER CIMP

Part XII.G.1. (Page E-30) and Part XII.G.2. (Page E-30) of the Monitoring and Reporting Program states that Permittees shall conduct aquatic toxicity monitoring utilizing the critical life stage chronic toxicity test methods listed. The draft CIMP does not propose use of critical life stage chronic toxicity test methods for assessment of toxicity in wet weather samples and instead proposes use of acute toxicity test methods. This is not acceptable; the appropriate chronic toxicity test method listed in the MRP must be used and both survival and sublethal endpoints must be reported. We suggest the group consult the State Water Resources Control Board 2011 publication, "Implementation Guidance: Toxicity Testing for Stormwater" to gain insight on how to run chronic toxicity tests on wet weather samples.

Part VIII.B.1.c.vi. (Page E-23) and Part VIII.G.1.d. (Page 27) of the Monitoring and Reporting Program states that where the TIE conducted at the downstream receiving water monitoring station was inconclusive then aquatic toxicity shall be monitored at the outfall. The draft CIMP does not propose conducting this required outfall toxicity monitoring.

While development of the proposed Discharge Assessment Plan (DAP) will be useful, it cannot take the place of the required outfall toxicity monitoring following an inconclusive TIE in the receiving water. And, while there may be situations where TIEs cannot be resolved due to non-persistent toxicity and no further action on that sample can be pursued, inconclusive TIEs often result from a lack of following well-defined procedures rather than non-persistent toxicity. As mentioned elsewhere in this comment letter, including pyrethroids in the TIE procedure will reduce the occurrence of inconclusive TIEs as will including chemical testing for fipronils and its degradates for comparison to U.S. EPA benchmarks.

Additionally, the toxicity flowcharts do not show the need to proceed to outfall toxicity testing should a TIE of a toxic receiving water sample be inconclusive and instead focus on the response to non-persistent toxicity. We strongly recommend a more cohesive approach whereby the Group develops a Toxicity Assessment Plan analogous to the Discharge Assessment Plan currently proposed in the CIMP.

Part XII.I.1. (Page E-33) of the Monitoring and Reporting Program states that a toxicity test sample is immediately subject to TIE procedures if either survival or sublethal endpoints demonstrate a Percent Effect value equal to or greater than 50% at the Instream Waste Concentration. The draft CIMP does not propose to perform a TIE when at least a 50% sublethal effect is seen but instead proposes to first collect a confirmatory sample two weeks later.

This is not an acceptable approach. The CIMP seems to be implying that chronic toxicity has some inherent non-persistent quality to it that makes the results unreliable. It also implies that chronic toxicity is of lesser importance. Although it would be hard to generalize to all possible situations, the fact that a large number of invertebrates (or fish) living in a receiving water can survive an ambient pollutant concentration but are impacted in terms of growth or reproduction means that the population as a whole will be impacted, and could eventually collapse. Some species living in the

receiving water have very short lifespans and during critical times of the year may be prey for other organisms that will in turn be impacted by their population decline.

Suggested Special Study: The 2013 study released by the California Stormwater Quality Association (CASQA) entitled "Review of Pyrethroid, Fipronil and Toxicity Monitoring Data from California Urban Watersheds" reviewed stormwater data from studies conducted during 2005 - 2012 and highlighted the toxicity impacts from use of pesticides not currently required to be monitored for by the MRP. We suggest the group begin monitoring for these chemicals in the receiving water and, in addition, assess toxicity using the 2002 acute toxicity testing protocol (EPA-821-R-02-012) with the amphipod *Hyalella azteca* as the test organism. *H. azteca* is known to be much more sensitive to pyrethroids than is *Ceriodaphnia dubia*, while the latter is useful for its sensitivity to OP pesticides. The two species together may also prove to be more useful in detecting toxicity from fipronil. And, should 50% or greater effect be detected in the toxicity test, we suggest a procedure to incorporate pyrethroids into the subsequent TIE be documented (three possible treatments have been identified by researchers, see http://www.pubfacts.com/detail/20018342/Focused-toxicity-identification-evaluations-to-rapidly-identify-the-cause-of-toxicity-in-environment). While fipronil does not have a TIE procedure identified currently, chemical testing for the parameter (and degradates) and comparison to U.S. EPA Office of Pesticide Program's aquatic life benchmarks at http://www.epa.gov/oppefed1/ecorisk_ders/aquatic_life_benchmark.htm will aid in determining the cause(s) of toxicity in order to follow up with outfall testing of the parameter(s) with the ultimate goal of removing the source. This approach will also help minimize inconclusive TIE results which would lead to required toxicity testing in a representative upstream outfall.

Lower Los Angeles River Mailing Distribution List

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