March 16, 2015

Upper Los Angeles River
Enhanced Watershed Management Group
(See Distribution List)

REVIEW OF THE UPPER LOS ANGELES RIVER ENHANCED 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)

Dear Upper Los Angeles River Enhanced Watershed Management Group:

The Regional Water Board has reviewed the monitoring program submitted on June 27, 2014 by the Upper Los Angeles River (ULAR) Enhanced Watershed Management Group. This monitoring 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 a coordinated integrated monitoring program (CIMP) 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. These programs must be approved by the Executive Officer of the Regional Water Board.

The Regional Water Board has reviewed the ULAR draft CIMP and has determined that, for the most part, the CIMP includes the elements set forth in Part II.E to achieve the Primary Objectives as set forth in Part II.A of Attachment E of the LA County MS4 Permit. However, some additions and revisions to the CIMP are necessary. The Regional Water Board's comments on the ULAR draft 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 **June 15, 2015.** The revised CIMP must be submitted to losangeles@waterboards.ca.gov with the subject line "LA County MS4 Permit – Revised ULAR CIMP" with a copy to Ivar.Ridgeway@waterboards.ca.gov.

Upon approval of the revised CIMP by the Executive Officer, the ULAR Group must prepare to commence the monitoring program within 90 days. If the necessary revisions are not made, the ULAR Group must comply with the Monitoring and Reporting Program and future revisions thereto, in Attachment E of the LA County MS4 Permit.

Until the ULAR Group's CIMP is approved by the Executive Officer, the monitoring requirements pursuant to Order No. 01-182 and Monitoring and Reporting Program CI 6948, and pursuant to approved TMDL monitoring plans shall remain in effect for the City and LACFCD.

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,

Samuel Unger

Samuel Unger, P.E.
Executive Officer

Enclosures: Enclosure 1 – Summary of Comments and Required Revisions
Enclosure 2 – Comments on Aquatic Toxicity Testing
Upper LA River Enhanced Watershed Management Group Distribution List

Enclosure 1 to March 16, 2015 Letter Regarding the Upper Los Angeles River Watershed Management Area Draft Coordinated Integrated Monitoring Program Summary of Comments and Required Revisions

CIMP Reference	MRP Element/ Reference (Attachment #)	Comment and Necessary Revision
Section 4 Stormwater Outfall Monitoring	**Outfall Based Monitoring** Att. E Part VIII.A.2.a page E-21	Section 4 and Attachment B of the CIMP note that the EWMP area includes one particularly large HUC 12 drainage area. As such, the permit requirement for at least one outfall for each HUC 12 drainage area was modified to focus the monitoring on the major subwatersheds. While the revision appears reasonable, the CIMP needs to clarify which (if any) specific HUC 12 drainage areas would not be monitored as a result and how the proposed locations are adequately representative of the unmonitored HUC 12 drainage area(s).
Section 4 Stormwater Outfall Monitoring	**Outfall Based Monitoring Att. E Parts VIII.B.1.c & VIII.B.1.d pp. E-22 & E-23**	Section 4.2 of the CIMP indicates that the list of parameters to be monitored was derived from the current list of constituents. Additional explanation of the list should be provided to justify that the list is consistent with the Attachment E requirements, and that it addresses water quality priorities for Categories 1, 2 and 3 waterbody-pollutant combinations as noted in section 3.2 of Attachment A to the CIMP, and section 2.2 of the draft EWMP workplan.
Section 4 Stormwater Outfall Monitoring	**Outfall Based Monitoring Att. E Parts III pp. E-5 & E-6**	Provide rationale regarding why Suspended-Sediment Concentration analysis is proposed for Receiving Water monitoring but not for Outfall monitoring.
Section 4 Stormwater Outfall Monitoring	**Outfall Based Monitoring Att. E Part II.E.2 page E-4**	Site LAR_06_SW_OLD does not appear to be adequately representative of the subwatershed area that it is intended to represent. Drainage to the outfall is 99% residential, however the subwatershed area while largely residential also includes 13% commercial/industrial land use. Information on the land use percentages is needed for the alternate site's drainage area for comparison to evaluate whether it is more representative. If the group continues to determine that the proposed site is the most representative of the subwatershed area, additional support for this determination is necessary.
Section 10.4.3 Sampling Techniques for the Collection of Water	**Outfall Based Monitoring Att. E Part VIII.C page E-23**	Section 10.4.3.4 discusses autosamplers, but does not specifically include the permit requirement related to 24-hour sampling. The draft CIMP should be revised to include the information on the time period over which the composite samples will be taken.
Section 2 Receiving Water Monitoring Program	**Monitoring Program Elements Att. E Part II.E.1**	Section 2.1.2 notes that one Tier II site from the metals TMDL was eliminated for redundancy; however, the redundancy is not explained and additional explanation should be provided.

	page E-4	
Section 2 Receiving Water Monitoring Program	**Monitoring Program Elements Att. E Part II.E.1 page E-4**	Further explanation is required for the movement of certain bacteria TMDL monitoring locations. Section 2.1.2 notes that LARB-02, 06 and 07 were moved to locations within the EWMP area. Details regarding – where they were moved to should be clarified. Reference is also made to monitoring within LAR Reach 5, but the location is not clear.
Section 2 Receiving Water Monitoring Program	**Receiving Water Monitoring Att. E Part VI.C.1.a page E-15**	Table 5 summarizes monitoring frequencies and some additional explanation should be provided – for example, the annual wet/dry weather frequency at site 3 (above LAG WRP) and site 5 is specified as "0/9" – the permit requires monitoring three times/year during wet conditions and only two during dry. "0/9" should be further explained.
Section 2 Receiving Water Monitoring Program	**Receiving Water Monitoring Att. E Part VI.C.1.d pp. E-15 & E-16**	Section 2.2 of the CIMP indicates that the list of parameters to be monitored is based on "water quality priorities." Presumably, the CIMP is referring to the priorities as discussed in section 3 of Attachment A, but this should be clarified, along with how the list in Tables 5 and 6 reflects the priorities.
Section 2 Receiving Water Monitoring Program	**Receiving Water Monitoring Att. E Part VI.D.1.c page E-17**	Section 2.2 of the CIMP indicates that the list of parameters to be monitored is based on "water quality priorities." Presumably, the CIMP is referring to the priorities as discussed in section 3 of Attachment A, but this should be clarified, along with how the list in Tables 5 and 6 reflects the priorities.
Section 2 Receiving Water Monitoring Program	**Receiving Water Monitoring Att. E**	Revise statement on page 9 regarding how a determination should be made as to whether MS4 discharges caused or contributed to a RWL exceedance to state, "...should be made using receiving water monitoring data, representative outfall monitoring data, and other pertinent data and information." Rephrase sentence two of the last paragraph on page 9 to state, "An exceedance of a RWL at a receiving water site may not on its own indicate ..."
Section 2 Receiving Water Monitoring Program	**Receiving Water Monitoring Att. E**	Rephrase discussion of relationship between proposed CIMP and existing TMDL monitoring programs to state that, "Implementation of the ULARWMAG CIMP will fulfill existing TMDL monitoring program requirements." Also, revise discussion to remedy inconsistency in text indicating in one sentence that the monitoring program for the LA River Bacteria TMDL is not yet developed (p. 8) and in another that a draft has been developed (p. 9).
Section 2 Receiving Water Monitoring Program	**Receiving Water Monitoring Att. E**	Provide additional support for exclusion of the Tier II water quality monitoring site in reach 6 that is included in the Metals TMDL CMP but not retained in the proposed CIMP by comparing the characteristics of the excluded TMDL CMP site with those of the other site located in reach 6 (page 12).
Section 2 Receiving	**Receiving Water**	Provide additional support for relocating LARB-05 - a site required under the bacteria TMDL - to site LAR1-1 in reach 6 by comparing

Water Monitoring Program	**Monitoring Att. E**	the characteristics of the two sites (page 12).
Section 2 Receiving Water Monitoring Program	**Receiving Water Monitoring Att. E**	Clarify what is meant by "where available" when describing the TMDL monitoring sites in Legg Lake, Echo Park Lake, and Lake Calabasas, and further clarify that monitoring to determine compliance with the TMDLs for these lakes will occur consistent with the monitoring recommendations in the TMDLs if existing programs do not exist or are inadequate to determine compliance (page 13).
Section 2 Receiving Water Monitoring Program	**Receiving Water Monitoring Att. E**	The draft CIMP proposes that Receiving Water monitoring at LA River sites includes analyses for 54 PCB congeners (as indicated in Table 5, note 8) but Receiving Water monitoring for lakes only includes analyses for 19 PCB congeners (as indicated in Table 7, note 1). Given that the LA Lakes PCB TMDLs are intended to ensure that water quality is sufficient to protect human health, the more comprehensive list of 54 congeners should be analyzed per Attachment D.
Section 2 Receiving Water Monitoring Program	**Receiving Water Monitoring Att. E**	Clarify exceptions to the addition of constituents to upstream receiving water monitoring sites based on exceedances at the associated downstream site - related to TMDLs (section 2.2, page 13).
Attachment A, Section 2.6 Harbor Toxics TMDL	**Receiving Water Monitoring Att. E**	In Section 2.2, the monitoring program states, "As recognized by the footnote in Attachment K-7 of the Permit, the County and the LACFCD have entered into an Amended Consent Decree with the United States and the State of California, including the LARWQCB, pursuant to which the LARWQCB has released the County and the LACFCD from responsibility for Toxic pollutants in the Dominguez Channel and the Greater Harbors." This statement misinterprets the Regional Water Board's findings. Footnote 1 to Table K-7 of the LA County MS4 Permit states, "The requirements of this Order to implement the obligations of this TMDL do not apply to a Permittee to the extent that it is determined that the Permittee has been released from that obligation pursuant to the Amended Consent Decree entered in United States v. Montrose Chemical Corp., Case No. 90-3122 AAH (JRx)." As stated in the responses to comments received on the Dominguez Channel and Greater Harbor Waters Toxic Pollutants TMDL, "...primarily one pollutant, DDT, is associated with the Superfund site and also addressed by the TMDL. The TMDL

		addresses numerous pollutants and utilizes a different process than Superfund. The other pollutants – heavy metals, PAHs, PCBs and other legacy pesticides are not within Superfund's focus at the Montrose OU2 Site..." Further, the WQBELs applicable to the County and LACFCD pursuant to the TMDL, which are in Attachment N, Part E of the LA County MS4 Permit, are for ongoing discharges from the MS4, not for the historic contamination of the bed sediments. Therefore, the statement in the draft WMP incorrectly concludes that the aforementioned Consent Decree releases the County and LACFCD from any obligation to implement the WQBELs in Attachment N, Part E.
Section 5 Non-Stormwater Outfall Program		Regarding Non-stormwater Discharge Monitoring in section 5.6, further discussion of and justification for the lack of sampling for PCBs, DDTs, dieldrin, chlordane and PAHs in non-stormwater discharges is required (page 42), given that Table 13 in Attachment A, section 3 indicates that there have been dry weather exceedances of some of these constituents in the last 5 years (i.e., DDTs). Alternatively, the ULARWMAG may provide in its revised CIMP a decision framework for determining under which circumstances non-stormwater discharge samples would be analyzed for the above constituents.
Section 10 Sampling Methods and Sample Handling	**Non-Storm Water Outfall Monitoring Att. E Part IX.H.2 page E-28**	Section 10.4.6.2 discusses non-stormwater sample collection (and refers to section 10.4.3), but does not fully address consistency with this requirement. The draft CIMP should be revised to include justification for why the use of non-composited grab samples is appropriate for monitoring non-storm water discharges.
Section 1 Introduction	**TMDL Monitoring Att. E Part V page E-12**	The 2012 revisions to the LA River Nitrogen and Related Effects TMDL are in effect as of August 7, 2014. Update Table 2 and Attachment A, section 2, Table 5, accordingly.
Section 10 Non-direct Measure-ments		Revise the suitability requirements for "non-direct measurements" in Section 10 on page 50 to clarify that sample analysis is conducted using an approved and sufficiently environmentally sensitive analytical method by a certified analytical laboratory. Also, include in the suitability requirements that "non-direct measurements" if to be relied upon to meet MS4 monitoring requirements, must be

		collected from an appropriate location to meet the objectives of the MS4 monitoring program as set forth in Attachment E, Parts II.A and II.E.
Section 11 Adaptive Management		Revise the discussion of the CIMP revision process in section 11.2 as follows: a. For #3, revise to state that the group will request to discontinue monitoring, and upon EO approval of the request, will discontinue monitoring of any non-TMDL constituent at a specified site if there are two consecutive monitoring events for the same condition ... with no exceedances observed. b. For #6, revise to state that the outfall monitoring location would be relocated to its alternate outfall site in the subwatershed as identified in Attachment C, section 7.3, or if the predetermined alternative outfall site could not be used, that the group would propose to the Regional Water Board for EO approval, an alternate outfall site. c. For #8, revise to clarify what is meant by "consistent exceedances" of interim WQBELs and to indicate by what date monitoring at the LAR_02_WAS LTA site would commence. Additionally, the trigger for conducting monitoring at the stormwater outfall sites should be moved to an earlier data rather than the proposed trigger, which is the deadline for achieving the final WQBELs. The trigger should be set sufficiently prior to the final deadline, so that if control measures will need to be implemented in certain subwatersheds, there will be adequate time to do so prior to the final TMDL compliance deadline.
Section 13 Schedule for CIMP Implement-ation		Revise section 13 regarding the schedule for CIMP implementation such that Phase II will commence 12 months from CIMP approval, Phase III within 24 months from CIMP approval, and Phase IV within 30 months of CIMP approval
Section 12 Data Management and Reporting		Revise section 12 to clarify that analytical data reports will identify exceedances applicable to actions levels, including both Municipal Action Levels (for stormwater discharges) and non-stormwater action levels, and that exceedances applicable to aquatic toxicity thresholds means any toxicity test results that indicate a "fail" of the pass/fail t-test.
Attachment B Monitoring Location Fact Sheets		Revise Attachment B, section 7 by revising Table 19 (page 76) to include the land use summary for each of the alternate sites' drainage areas for each subwatershed in addition to that of the proposed outfall site.

ENCLOSURE 2
COMMENTS ON AQUATIC TOXICITY TESTING
UPPER 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 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 the representative upstream outfall(s).

Upper Los Angeles River EWMP Group

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