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ENVIRONMENTAL PROTECTION

Los Angeles Regional Water Quality Control Board

January 30, 2015

Upper Santa Clara River Watershed Management Group
(See Distribution List)

REVIEW OF THE UPPER SANTA CLARA RIVER WATERSHED MANAGEMENT GROUP COORDINATED INTEGRATED MONITORING PROGRAM, PURSUANT TO 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 Santa Clara River Watershed Management Group:

The Regional Water Board has reviewed the draft monitoring program submitted on June 27, 2014 by the Upper Santa Clara River Watershed (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 Group's draft CIMP and has determined that, for the most part, the CIMP includes the elements set forth in Part II.E of Attachment E and will achieve the Primary Objectives 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 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 **April 30, 2015.** The revised CIMP must be submitted to losangeles@waterboards.ca.gov with the subject line "LA County MS4 Permit – Revised Upper Santa Clara River Watershed Management Group CIMP" with a copy to Ivar.Ridgeway@waterboards.ca.gov and Erum.Razzak@waterboards.ca.gov.

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

Until the 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.

If you have any questions, please contact Ms. Erum Razzak of the Storm Water Permitting Unit by electronic mail at Erum.Razzak@waterboards.ca.gov.or by phone at (213) 620-2095. Alternatively, you may also 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 Santa Clara River Watershed Management Group Distribution List

Enclosure 1 – Summary of Comments and Necessary Revisions to Draft CIMP

Upper Santa Clara River Watershed Management Group (USCR WMG)

CIMP Reference	MRP Element/ Reference (Attachment E)	Comment and Necessary Revision
Receiving Water Monitoring		
Attachment C	Table E-2	The draft CIMP states that some constituents listed in Table E-2 were never detected in any reach of the USCR EWMP area based on consideration of ten years (2002-2012) of monitoring data within the USCR EWMP area from the Los Angeles Department of Public Works providing long-term data from the SCR mass emission station S29 and Los Angeles County Sanitation Districts long-term receiving water monitoring data. Therefore, the draft CIMP does not propose analysis for these constituents during the first year of monitoring. The revised CIMP must list those constituents from Table E-2 that are being excluded on the basis of the historical data. Additionally, the revised CIMP needs to present the methods used to analyze these constituents historically; such methods should have been sufficiently sensitive to detect the constituent at environmentally relevant levels.
Attachment C	Table E-2	Attachment C of the draft CIMP lists "Nitrate-Nitrogen". Please clarify if this was a typographical error that should say "Nitrate/Nitrite-Nitrogen".
Table F-2	Part XIV	Table F-2 of the draft CIMP uses method EPA 245.1 for Hg. Mercury should be measured using a sufficiently sensitive analytical method, preferably EPA method 1631 or 245.7.
Section 7.1	Part III.F.2	The draft CIMP proposes the use of grab samples for all receiving water and outfall locations except for the single mass emission station, which will use a 3-hour time-weighted composite because most receiving water limitation exceedances occur during dry weather and all TMDL sampling can be appropriately done by grab sampling. The draft CIMP also states that as part of the CIMP revision process, the need to conduct composite sampling at the outfall monitoring sites will be evaluated. At that point, the best method for collecting composite samples will be decided (manual or automated). If warranted, a gradual implementation of composite sampling at the stormwater outfall monitoring locations will be implemented.

CIMP Reference	MRP Element/ Reference (Attachment E)	Comment and Necessary Revision
		The revised CIMP should provide further support for the appropriateness and necessity of grab sampling for some or all receiving water and outfall locations in the USCR EWMP area in lieu of flow-weighted composite sampling as discussed in the meeting between Regional Water Board staff and the USCR EWMP Permittees on January 6, 2015.
Section 5.3, Attachment F, & Figure F-3	Part VI.C.1.b	As an alternative to the wet weather monitoring conditions stated in the LA County MS4 Permit, the draft CIMP proposes that wet weather sample collection will be triggered by the prediction of a storm of 1 inch or greater with a 70 percent probability of rainfall at least 24 hours prior to the event start time. The one-inch minimum rainfall trigger for storm water sampling was selected based on the Santa Clara River rainfall and flow data record (Figure F-3). The revised CIMP should explain how Figure F-3 and other relevant information validate the selection of the 1-inch rainfall trigger as discussed in the meeting between Regional Water Board staff and the USCR EWMP Permittees on January 6, 2015.
Table ES-1	Part VI.C.1.a, VI.D.1.a, & VIII.B.1.a	Diazinon and chlorpyrifos are listed on the Clean Water Act Section 303(d) List for Santa Clara River Reach 6. The draft CIMP states that based on a water quality priorities analysis, there were no exceedances of diazinon and chlorpyrifos for the past 5 years. Therefore, the draft CIMP proposes 1 wet and 1 dry weather sampling for the first year for diazinon and chlorpyrifos at the mass emissions station in Santa Clara River Reach 6. The draft CIMP also says that if there are exceedances, outfall monitoring will commence during the next monitoring year for the conditions under which the exceedances occurred (wet or dry weather). However, until diazinon and chlorpyrifos are delisted, at least 3 wet and 2 dry weather samples per year should be taken at the mass emission station for the first two years of monitoring. If no exceedances occur within the two-year period, Permittees may request that monitoring for those two pollutants is discontinued. Alternatively, if sufficient data are available to evaluate the two constituents for delisting, the Permittees may present in the revised CIMP the lines of evidence that support delisting of these two constituents in Reach 6, consistent with the delisting requirements for these constituents in the State's Listing Policy. Additionally, if exceedances for diazinon and chlorpyrifos are found at the mass emission station, monitoring of outfalls discharging to

CIMP Reference	MRP Element/ Reference (Attachment E)	Comment and Necessary Revision
		Santa Clara River Reach 6 should be conducted during the relevant time period (wet/dry as per the frequency specified in Attachment E of the LA County MS4 Permit)
Storm Water Outfall Based Monitoring		
Attachment B & D	Part VIII.A.2.b	Not all HUC 12 drainage areas have a representative outfall. However the LA County MS4 Permit states that as part of CIMP development, alternative approaches are allowable. Outfalls were selected to identify sites that are representative of the range of land uses and characteristics of the development of the EWMP area. According to the information provided in the draft CIMP, 4 of the 6 outfalls under-represent commercial areas. Salt Canyon is the most significant with 68% commercial in the HUC-12 drainage area but only 41% in the outfall drainage area. The revised CIMP should briefly clarify why the outfalls that under-represent commercial areas were chosen and best represent the range of land uses and characteristics of the EWMP area as discussed in the meeting between Regional Water Board staff and the USCR EWMP Permittees on January 6, 2015.
Table 12	Part VII.A	Table 12 of the draft CIMP identifies maps and database components as "submitted" or "to be developed." Items "to be developed" include effective impervious area overlay, notation of outfalls with significant NSW discharges, storm drain outfall catchment areas for each major outfall, photographs of outfalls, determination of significant NSW discharges, and stormwater and NSW monitoring data. For all items listed as "to be developed" the plan notes that the information will be compiled as the monitoring program unfolds. The revised CIMP should ensure that all the elements listed under Table 12 of the draft CIMP are submitted.
Section 4.1.2		The draft CIMP states that the County of Los Angeles has already installed five full capture systems required to achieve the final trash WQBELs applicable to MS4 discharges to Lake Elizabeth and will be installing a full capture device at the sixth outfall location prior to June 2015. Therefore, the draft CIMP states that a TMDL monitoring site for trash within Lake Elizabeth is not required. To be deemed in compliance with the Lake Elizabeth trash TMDL, the revised CIMP should clearly state that full capture devices have been and/or will be installed on all conveyances that discharge to

CIMP Reference	MRP Element/ Reference (Attachment E)	Comment and Necessary Revision
		Lake Elizabeth prior to June 2015 (as per draft CIMP). The revised CIMP should provide additional information to confirm full implementation of the trash TMDL through installation of full capture devices at all MS4 catchbasins/outfalls to Lake Elizabeth. This information must include a map and database of all catchbasin/outfall locations, type of full capture device installed/to be installed, and date of installation. (Note that information on the full capture devices that have been installed should be provided in the format established in the Trash TMDL Compliance Reporting Forms dated October 19, 2010 – the tab named FCS Database – at the following location on the Regional Water Board's website: http://www.waterboards.ca.gov/losangeles/water_issues/programs/stormwater/municipal/index.shtml) Also, note that these devices must be adequately sized and maintained, and that maintenance records are kept and available for inspection by the Regional Water Board upon request.
Section 4.1.2		The draft CIMP states that outfall monitoring at Lake Elizabeth will be conducted solely to determine whether the MS4 contributes to the lake's 303(d) listing for eutrophic condition and that monitoring at the Lake Elizabeth outfall site will discontinue after a year, should the results indicate the MS4 is not contributing to the lake's eutrophic condition. The Regional Water Board is currently developing a TMDL to address eutrophic conditions in Lake Elizabeth. General monitoring requirements will be included as is standard for TMDLs. The CIMP will need to be updated consistent with these TMDL monitoring requirements.
Section 5.1 & 5.2		The draft CIMP notes that stormwater outfall and non-stormwater TMDL outfall monitoring is being implemented using a phased approach with two outfalls monitored during the 1st year, an additional two outfalls the 2nd year, and all outfalls during the 3rd and subsequent year. The revised CIMP should specify which outfalls are proposed for each phase of the outfall monitoring start-up.
Non-Stormwater Outfall Based Monitoring		
Section 8.2 & 8.3	Part IX.C.1	The draft CIMP states criteria that will be used to determine significant non-stormwater outfall discharge and also notes that any discharge more than a trickle will be noted. The revised CIMP should be more specific on how a significant non-stormwater discharge will be determined. In particular, it should provide greater specificity on thresholds for field measurements, including flow, and water quality data that they would use to determine whether the non-stormwater discharge is significant.

CIMP Reference	MRP Element/ Reference (Attachment E)	Comment and Necessary Revision
Aquatic Toxicity		
Table ES-1, Table 10		The draft CIMP proposes toxicity testing at one receiving water monitoring location (Santa Clara River Reach 6). There is no toxicity testing proposed at receiving water monitoring stations for Santa Clara River Reaches 5 or 7. The CIMP should be revised to include toxicity testing at upstream and downstream receiving water monitoring locations (in addition to the outfall requirements) if toxicity is observed at the Reach 6 receiving water monitoring site.

Enclosure 2 – Comments on Aquatic Toxicity Testing

Upper Santa Clara River Watershed Management Group

Part XII.G.1. (Page E-30) and Part XII.G.2. (Page E-30) of the Monitoring and Reporting Program state 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.

Additionally, the toxicity flowcharts in the CIMP 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.

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. 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.

Upper Santa Clara River EWMP Group

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