April 2, 2015

Ballona Creek Watershed Management Group
(See Distribution List)

REVIEW OF THE BALLONA CREEK 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 Ballona Creek Watershed Group:

The Regional Water Board has reviewed the draft Coordinated Integrated Monitoring Program (CIMP) submitted on June 25, 2014 by the Ballona Creek Watershed Management Group (Group). 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 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 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. 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.

Previous to the submittal of the draft CIMP, responsible jurisdictions and agencies in the Ballona Creek watershed submitted an Outfall Monitoring Plan (OMP) on April 26, 2013, as required by the *Ballona Creek, Ballona Estuary and Sepulveda Channel Bacteria TMDL*. Regional Water Board staff has reviewed the OMP. However, given that the Group wishes to address outfall monitoring requirements in the CIMP, the Regional Water Board will incorporate its comments and direction on outfall monitoring per the bacteria TMDL as part of this letter.

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 **July 2, 2015.**

The revised CIMP must be submitted to losangeles@waterboards.ca.gov with the subject line "LA County MS4 Permit – Revised Ballona Creek Watershed Management Group CIMP" with a copy to Ivar.Ridgeway@waterboards.ca.gov and Chris.Lopez@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.

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

If you have any questions, please contact Mr. Chris Lopez of the Storm Water Permitting Unit by electronic mail at Chris.Lopez@waterboards.ca.gov or by phone at (213) 576-6674. 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 Necessary Revisions to Draft CIMP
Enclosure 2 – Comments on Aquatic Toxicity Testing
Ballona Creek Watershed Management Group Distribution List

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

Ballona Creek Watershed Management Group

CIMP Reference	MRP Element/ Reference (Attachment E)	Comment and Necessary Revision
Receiving Water Monitoring		
Section 2 (Changes to Existing Approved TMDL Monitoring Plans)	Part IV.B.3	Section 2 (page 8) states that "[i]mplementation of the BCWMG CIMP will replace existing TMDL monitoring programs." The Group should rephrase the discussion of the relationship between proposed CIMP and existing TMDL monitoring programs to state that, "implementation of the BCWMG CIMP will fulfill existing TMDL monitoring program requirements." The draft CIMP appears to clearly note two modifications of existing approved TMDL monitoring plans: 1. BC Metals and Toxics CMP – "Of the six sediment quality and bioaccumulation monitoring sites, two monitoring sites will be utilized to eliminate redundancy." 2. BC Bacteria CMP – "The eight sites included in the BC Bacteria CMP… are also included as TMDL monitoring sites, with one exception to eliminate the collection of data that is duplicative. The BCB-2 monitoring site has been removed given that the data collected at this site are almost indistinguishable from the data collected at the other BC Bacteria CMP site located in Ballona Creek Reach 2 (BCB-5)." The Group should clarify whether these are the only proposed changes to approved TMDL monitoring plans in the revised CIMP. Overall, the Group should include the current approved monitoring plans as attachments and clearly note within the CIMP any proposed modifications.
Section 2 (Removal of Bacteria TMDL Monitoring Location)	Part IV.B.3	On page 12, the draft CIMP proposes a modification to the existing BC Bacteria CMP stating: "The eight sites included in the BC Bacteria CMP… are also included as TMDL monitoring sites, with one exception to eliminate the collection of data that is duplicative. The BCB-2

		monitoring site has been removed given that the data collected at this site are almost indistinguishable from the data collected at the other BC Bacteria CMP site located in Ballona Creek Reach 2 (BCB-5)." This proposal cannot be approved since the Basin Plan specifically requires daily or systematic weekly sampling at a minimum of two locations within Reach 2 of Ballona Creek. Therefore, the CIMP should include a second monitoring location in Reach 2. To fulfill this requirement, the Group must use the existing BC Bacteria CMP sites or propose an alternate monitoring location within Reach 2 to replace BCB-2. If a Time Schedule Order (TSO) is issued for dry weather bacteria WQBELs and receiving water limitations, the Group may temporarily suspend receiving water monitoring at BCB-2. However, upon expiration of the TSO, the Group would be required to resume monitoring at BCB-2 or an alternate location (e.g., below the proposed Low Flow Treatment Facility #1 (LFTF-1)).
Section 2 (Receiving Water Monitoring)	Part VI.C.1.e, Part VI.D.1.d	The Group should make the following revisions to its Receiving Water Monitoring Program: - Include metals effectiveness monitoring at BC_02_ING (formerly BC-1) as established in the current CMP (Table 6, page 14). - Revise Table 7 (pages 16-17) to include Table E-2 screening and monitoring; aquatic toxicity; and other applicable minimum parameters listed in Parts VI.C.1.d and VI.D.1.c of the MRP, for both Centinela Creek and Sepulveda Channel. These revisions should be made since the LTA site is located upstream of the confluence of these tributaries with Ballona Creek. - Revise Table 6, footnote 4 to specify that initial Table E-2 screening will be conducted during the first significant rain event of the storm year for wet weather and during the critical dry weather event for dry weather. - Clarify Table 7, footnote 8 for CC_CEN. This footnote appears to be incomplete in the draft CIMP. - Revise the bulk sediment monitoring at CC_CEN and BC_02_ING to include dieldrin and TOC per the Toxics TMDL (Tables 6 and 7). - Clarify exceptions to the addition of constituents to other

		receiving water monitoring sites based on exceedances at the associated downstream site-related to TMDLs (Section 2.2, page 13).
Section 2 (Revised Ballona Creek Estuary Toxics TMDL Monitoring)	Part IV.B.3	The draft CIMP addresses monitoring updates contained in the revised Ballona Creek Estuary Toxics TMDL. As the Group notes, toxics monitoring in the CIMP will fulfill TMDL monitoring requirements and replace toxics monitoring contained in the current Coordinated Monitoring Plan. Although updated monitoring requirements appear to be included in Table 6 (page 14), the Group's CIMP should include additional detail on sediment monitoring outlined in the Basin Plan, in particular: - Sediment triad assessment and the methodology for combining results from sampling locations to determine sediment conditions. - Details on stressor identification, to be conducted if sediments fail to meet the narrative protective condition of Unimpacted or Likely Unimpacted. The Group notes (on page 12) that it is eliminating 4 of the 6 sediment quality and bioaccumulation monitoring sites established in the current CMP, stating: "Of the six sediment quality and bioaccumulation monitoring sites, two monitoring sites will be utilized to eliminate redundancy. The sediment and bioaccumulation monitoring sites are the two sites where fish tissue and bioaccumulation monitoring has been most successful." The Group needs to give more detail and provide rationale for the elimination of these monitoring sites. The Group should clearly state how the eliminated sites are redundant and how the remaining sites will be adequate. Further, the Group should explain what it means in stating that fish tissue and bioaccumulation monitoring has been "most successful" at the remaining two monitoring sites. Regional Water Board staff will evaluate the provided information to assess the adequacy of the Group's proposal.
Section 2 (Ballona Creek Wetlands TMDL for Sediment and Invasive Exotic Vegetation)	Part XIX.B	The draft CIMP lacks detail on how the Group will quantify the annual loading of sediment from the Ballona Creek watershed and impact from the sediment loading to the Ballona Creek Wetlands. The following revisions should be made: - Revise section 2 to include detail on how annual loading of sediment will be quantified and how the impact from the

		sediment loading to the wetlands will be assessed. - Provide rationale on how this estimate is consistent with the estimates cited and used in USEPA's TMDL (see Section 5.1.3 on pages 59-61 of the TMDL). - Provide detail on how the estimate fully represents the total loading from the entire drainage area. - Describe how the estimate accounts for both suspended sediment and sediment bed load. - Revise the Group's procedure to use SSC instead of TSS.
Section 2 (Santa Monica Bay TMDLs for DDTs and PCBs)	Part XIX.B	The Group should provide specific detail on how the Group's CIMP is addressing the monitoring for this TMDL as outlined in the MRP: *"Permittees shall develop a Monitoring and Reporting Plan for Regional Water Board Executive Officer approval that describes the methodologies that will be used to monitor and assess sediment for DDT and PCBs. The monitoring design and assessment framework should be designed to provide credible estimates of the total mass loadings to the Santa Monica Bay. Monitoring should be conducted on a coordinated watershed-wide basis using sufficiently sensitive analytical methods for DDT and PCBs. Monitoring sediments in catch basins designed for pollutant prevention may be a way for Permittees to quantify load reductions to the Santa Monica Bay."*
Attachment C (Trash TMDL Reporting)		The following revisions need to be made with regard to monitoring and reporting of trash TMDL compliance: - Monitoring and reporting for the Ballona Creek Trash TMDL should be reported by the Permittees using the Trash TMDL Compliance Reporting Forms (revised to reflect compliance deadlines per the Ballona Creek Trash TMDL) found at: http://www.waterboards.ca.gov/losangeles/water_issues/programs/stormwater/municipal/los_angeles_ms4/TrashTMDLComplianceReportingForms/trash_tmdl_reportingforms_corrected_2010_1019.xls For clarification, when reporting on the number of catchbasins retrofitted with either full capture systems or partial capture devices with a predetermined performance, Permittees must report on all catchbasins within their jurisdiction – both those that are Permittee-owned and those that are LACFCD-owned. - The draft CIMP states that West Hollywood will determine

		the amount of trash discharged annually by utilizing the performance standards of the various BMPs employed by the City. Such a performance based approach is acceptable in areas serviced solely by partial capture devices, however, the performance of the partial capture device(s) must be based on the performance in the implementing area, including performance under different conditions (e.g., low to high trash loading). (See Part VI.E.5.b(2)(a) and footnote 42 of the LA County MS4 Permit.) The revised CIMP must provide documentation of the approach used to determine the performance of the partial capture device(s) used within West Hollywood's jurisdiction for review by the Regional Water Board. If such data are not available for the implementing area, West Hollywood must utilize the mass balance approach, based on the daily generation rate (DGR), as set forth in Part VI.E.5.b(2)(b) of the permit.
Outfall Monitoring		
Section 2 (Bacteria TMDL Outfall Monitoring Plan)	Part II.A.2	<u>Outfall Monitoring Plan</u> The draft CIMP notes that an Outfall Monitoring Plan (OMP) as required by the revised Bacteria TMDL was submitted on April 26, 2013. However, the Group states that monitoring has not commenced under this plan since it has not been approved and that components of this plan will be considered during CIMP development. Regional Water Board staff has reviewed the OMP submitted in April 2013. However, given that the Group wishes to address the revised Bacteria TMDL's outfall monitoring requirements in the CIMP, the Regional Water Board will incorporate its comments and direction on outfall monitoring for bacteria as part of this letter. <u>Enhanced Outfall Monitoring</u> The Group's outfall monitoring program for bacteria fails to include a protocol for enhanced outfall monitoring as a result of an in-stream exceedance. At a minimum, when there are bacteria exceedances at a receiving water monitoring site above the allowable number of exceedance days for that time period, the Group should initiate weekly sampling of the outfalls with significant non-stormwater discharges that discharge upstream of the receiving water monitoring site where the exceedances were observed. This accelerated weekly sampling schedule would commence and continue for a minimum of six weeks (to allow for calculation of a geometric mean) and could be discontinued if either: 1) The receiving water is no longer exceeding receiving water limitations, or

		2) The non-stormwater discharge is not exceeding the single sample WQBELs or the geometric mean WQBELs. If a TSO is issued for dry weather bacteria WQBELs and receiving water limitations, the above protocol for enhanced outfall monitoring at outfalls with significant non-stormwater discharges shall be followed where the interim receiving water limitations in the TSO are exceeded at a receiving water monitoring site.
Section 4 (SW Outfall Monitoring)	Part VIII	The Group should make the following revisions to its Stormwater Outfall Based Monitoring Program: - Revise section 4 to include the area of the drainages served by each of the proposed outfall monitoring sites as well as corresponding map(s) of each outfall drainage area. - Revise section 4, Table 13 (page 25) and Attachment B, section 7, Table 14 (page 45) to also compare the land uses of each outfall monitoring site to their relevant subwatershed. For example, the land uses of the Centinela Creek site should also be compared to the land uses for all land draining to Centinela Creek. Outfall monitoring sites should be representative of land uses at this level. Additionally, commercial and industrial land uses should be listed as separate categories, if possible. - Revise Attachment B, section 7 by revising Table 14 (page 45) 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. - Revise section 4, Table 14 (page 27-28) to include SSC in the list of parameters to be monitored at the Centinela Creek outfall monitoring site. - Specify that storm water samples will be collected during the first 24 hours or for the entire storm water discharge if it is less than 24 hours.
Section 5 (NSW Outfall Program)	Part IX.C	The Group should revise their criterion for determining significant NSW discharges. The CIMP may use its two criteria ranking approach for prioritizing significant NSW discharges, however defining only the top 10% of ranked outfalls as significant appears limiting and inadequate. We note that the draft OMP submitted per the TMDL proposed identifying the top 20% of outfalls as prioritized outfalls.
Appendix 2 (SMB Debris TMDL - PMRP)	Part II.A.2	In Appendix 2 of the draft CIMP, the Group includes a Plastic Pellet Monitoring and Reporting Plan (PMRP) as required by the Santa Monica Bay Nearshore Debris TMDL.

		The PMRP indicates that all Group members except for the City of Los Angeles are absolved of requirements for monitoring and establishment of triggers for increased inspections and enforcement. In order to substantiate this, each Group member (including the City of Los Angeles) should detail how they determined that there were no facilities and activities in their jurisdiction related to the manufacturing, handling, or transportation of plastic pellets by ensure that the SIC codes cited in the TMDL and facilities with "plastic" in the facility or operator name were searched; and provide corresponding documentation of their determinations (e.g. printouts of search queries, listings of plastic-associated facilities, etc.).
Appendix 2 (SMB Debris TMDL – Plastic Pellet Monitoring)	Part II.A.2	The PMRP indicates that plastic pellet monitoring will be conducted semi-annually only if there is evidence of pellet discharges found during an annual facility inspection. The Group should provide rationale for why this monitoring is adequate. As part of its annual facility inspections of plastic pellet facilities, the Group must include visual assessment of the potential discharge path from the facility to the nearest catch basin for plastic pellets. The proposed catch basin monitoring procedure should describe how long the two-stage mesh will be placed in the outlet, drop-inlet, or catch basin. If available, pictures or diagrams of how the two-stage mesh will be placed in the outlet, drop-inlet, or catch basin should also be included. The Group should evaluate alternate monitoring locations, including downstream locations where pellets might accumulate. Control measures such as the Group's proposed low flow treatment facilities may serve as monitoring locations when operational.
General		
Section 13 (Schedule for CIMP Implementation)	Part IV.C.6	Page 51 of the draft CIMP indicates that phasing for the installation of 4 autosamplers will take place over a period of 30 months. Using this schedule, full installation would occur in 2018. The Group should move up its scheduling so that full installation of autosamplers will occur by December 2017. For outfall monitoring, the Group should move up installation of outfall monitoring locations so that stormwater outfall monitoring is performed during the 2015/16 wet season. If installation of autosamplers is infeasible, the Group can temporarily conduct manual composite sampling.
Section 2 (RWL	Part II.A	Revise statement on page 9 on how a determination should be made regarding whether MS4 discharges caused or contributed to a

Exceedances)		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 10 (Non-Direct Measurements)	Part II.A and Part II.E	Revise the suitability requirements for "non-direct measurements" in section 10 on page 46 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 11.2 (CIMP Revision Process)	Part IV	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.
Section 12 (Data Management and Reporting)	Part XVIII.A	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.

ENCLOSURE 2
COMMENTS ON AQUATIC TOXICITY TESTING
BALLONA CREEK 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 the marine 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).

Ballona Creek Watershed Management Group Distribution List (via email)

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