

Los Angeles Regional Water Quality Control Board

October 28, 2014

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

REVIEW OF THE LOWER LOS ANGELES RIVER WATERSHED MANAGEMENT GROUP'S DRAFT WATERSHED MANAGEMENT PROGRAM, PURSUANT TO PART VI.C OF THE LOS ANGELES COUNTY MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) PERMIT (NPDES PERMIT NO. CAS004001; ORDER NO. R4-2012-0175) AND PART VII.C 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 Watershed Management Program (WMP) submitted on June 27, 2014 by the Lower Los Angeles River Watershed Management 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 either a WMP or Enhanced Watershed Management Program (EWMP) to implement permit requirements on a watershed scale through customized strategies, control measures, and best management practices (BMPs). Development of a WMP or EWMP is voluntary and may be developed individually or collaboratively.

NPDES Permit No. CAS004003 (Order No. R4-2014-0024) authorizes discharges from the MS4 originating within the City of Long Beach (hereafter, Long Beach MS4 Permit). The Long Beach MS4 Permit similarly allows for the City of Long Beach to develop either a WMP or EWMP 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 Lower Los Angeles River Watershed Management Group and is permitted under its own individual permit.

The purpose of a WMP or EWMP is for a Permittee to develop and implement a comprehensive and customized program to control pollutants in MS4 discharges of stormwater and non-stormwater to address the highest water quality priorities. These include complying with the required water quality outcomes of Part V.A (Receiving Water Limitations) and Part VI.E and Attachments L through R (Total Maximum Daily Load (TMDL) Provisions) of the LA County MS4 Permit. If a Permittee opts to develop a WMP or EWMP, the WMP or EWMP must meet the requirements, including conducting a Reasonable Assurance Analysis (RAA), of Part VI.C (Watershed Management Programs) of the LA County MS4 Permit and must be approved by the Regional Water Board.

CHARLES STRINGER, CHAIR | SAMUEL UNGER, EXECUTIVE OFFICER

As stated above, on June 27, 2014, the Lower Los Angeles River Watershed Management Group (Group) submitted a draft WMP to the Regional Water Board pursuant to Part VI.C.4.c of the LA County MS4 Permit.

The Regional Water Board has reviewed the draft WMP and has determined that, for the most part, the draft WMP includes the elements and analysis required in Part VI.C of the LA County MS4 Permit. However, some revisions to the Group's draft WMP are necessary. The Regional Water Board's comments on the draft WMP, including detailed information concerning necessary revisions to the draft WMP, are found in Enclosure 1 and Enclosure 2. The LA County MS4 Permit includes a process through which necessary revisions to the draft WMP can be made (Part VI.C.4 in the LA County MS4 Permit). The process requires that a final WMP, revised to address Regional Board comments identified in the enclosures, must be submitted to the Regional Water Board not later than three months after comments are received by the Permittees on the draft program. Please make the necessary revisions to the draft WMP as identified in the enclosures to this letter and submit the revised WMP as soon as possible and no later than **January 28, 2015**.

The revised WMP must be submitted to losangeles@waterboards.ca.gov with the subject line "LA County MS4 Permit – Revised Draft Lower LA River WMP" with a copy to Ivar.Ridgeway@waterboards.ca.gov and Chris.Lopez@waterboards.ca.gov.

If the necessary revisions are not made, the Permittees will be subject to the baseline requirements in Part VI.D of the Order and shall demonstrate compliance with receiving water limitations pursuant to Part V.A and with applicable interim and final water quality-based effluent limitations (WQBELs) in Part VI.E and Attachment O pursuant to subparts VI.E.2.d.i.(1)-(3) and VI.E.2.e.i.(1)-(3), respectively.

Until the draft Lower Los Angeles River WMP is approved, the Permittees are required to:

- (a) Continue to implement all watershed control measures in its existing storm water management programs, including actions within each of the six categories of minimum control measures consistent with Title 40, Code of Federal Regulations, section 122.26(d)(2)(iv);
- (b) Continue to implement watershed control measures to eliminate non-storm water discharges through the MS4 that are a source of pollutants to receiving waters consistent with Clean Water Act section 402(p)(3)(B)(ii);
- (c) Target implementation of watershed control measures in (a) and (b) above to address known contributions of pollutants from MS4 discharges to receiving waters; and
- (d) Implement watershed control measures, where possible from existing TMDL implementation plans, to ensure that MS4 discharges achieve compliance with interim and final trash water quality-based effluent limits (WQBELs) and all other final WQBELs and receiving water limitations by the applicable compliance deadlines occurring prior to approval of the WMP.

In addition on June 27, 2014, the Lower Los Angeles River Watershed Management Group submitted a draft Coordinated Integrated Monitoring Program (CIMP) to the Regional Water Board pursuant to Part IV.C of Attachment E of the LA County MS4 Permit. The Regional Water Board review and comments on the draft CIMP will be provided under separate cover.

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,

A handwritten signature in blue ink that reads "Sam Unger for".

Samuel Unger, P.E.
Executive Officer

Enclosures:

- Enclosure 1 – Summary of Comments and Necessary Revisions
- Enclosure 2 – Comments on Reasonable Assurance Analysis

cc: John Hunter, John L. Hunter and Associates, Inc.

Lower Los Angeles River Mailing Distribution List

| Name | City | Email Address |
|---------------------|----------------|--|
| Jason Wen | Downey | JWen@downeyca.org |
| Konya Vivanti | Lakewood | kvivanti@lakewoodcity.org |
| Anthony Arevalo | Long Beach | Anthony.Arevalo@longbeach.gov |
| Emilio Murga | Lynwood | emurga@lynwood.ca.us |
| Sarah Ho | Paramount | sho@paramountcity.com |
| Arturo Cervantes | Pico Rivera | acervantes@pico-rivera.org |
| Steve Myrter | Signal Hill | SteveMyrter@cityofsignalhill.org |
| Mohammad Mostahkami | South Gate | mmostahkami@sogate.org |
| Angela George | LA County, DPW | ageorge@dpw.lacounty.gov |
| Robert Wu | Caltrans | robert.wu@dot.ca.gov |
| John Hunter | Consultant | jhunter@jlha.net |

Los Angeles Regional Water Quality Control Board

Enclosure 1 to October 28, 2014 Letter Regarding the Lower Los Angeles River
Watershed Management Area Draft Watershed Management Program

Summary of Comments and Required Revisions to the Draft Watershed Management Program

| LA County MS4 Permit Provision* | Summary of Comments and Necessary Revisions |
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| <p>Part VI.C.1.d (Purpose of Watershed Management Program, page 47)</p> | <p>Section 1.1 of the draft WMP states, “the goal of these requirements is to reduce the discharge of pollutants from MS4s to the maximum extent practicable.” The goal of the three permits and of a WMP is broader than presented (p. 1-1). Per Part VI.C.1.d of the LA County MS4 Permit, the goals of the Watershed Management Programs are to “... ensure that discharges from the Permittee’s MS4: (i) achieve applicable water quality-based effluent limitations in Part VI.E and Attachments L through R pursuant to the corresponding compliance schedules, (ii) do not cause or contribute to exceedances of receiving water limitations in Parts V.A and VI.E and Attachments L through R, and (iii) do not include non-storm water discharges that are effectively prohibited pursuant to Part III.A. The programs shall also ensure that controls are implemented to reduce the discharge of pollutants to the maximum extent practicable (MEP) pursuant to Part IV.A.1.” The revised WMP needs to acknowledge the broader goals set forth in the permit.</p> |
| <p>Part VI.C.5.a.iii.(1)(a)(v) (Source Assessment, page 60)</p> | <p>The MS4 Permit requires that TMDL source investigations be considered in the source assessment. Although several TMDLs are discussed in Section 2.2, others with potentially useful insights such as the Los Angeles River metals TMDL were not. The group should consider the source investigations from all relevant TMDLs for possible insights into important sources that might be useful in designing an effective program.</p> |
| <p>Part VI.C.5.a.iii.(1)(a)(vi) (Source Assessment, page 60)</p> | <p>The MS4 Permit requires the source assessment to include data and conclusions from watershed model results. The Regional Water Board did not find any responsive information in the draft WMP and any available information should be noted in the final WMP. For example, relevant findings presented in the implementation plans for the LA River metals TMDL submitted in</p> |

| LA County MS4 Permit Provision* | Summary of Comments and Necessary Revisions |
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| | <p>October 2010 by Reach 1 and Compton Creek participating jurisdictions and Reach 2 participating jurisdictions should be included.</p> |
| <p>Part VI.C.5.a.iii.(1)(a)(vii) (Source Assessment, page 60)</p> | <p>The MS4 Permit requires a map of the MS4 including major outfalls and major structural controls. Appendix H of the CIMP provides maps showing the major outfalls and Appendix D of the draft WMP provides a tabular list of existing and proposed BMPs. The revised WMP should include a map (or GIS project file) of these BMPs as well. Also, the outfall database should be submitted with the revised WMP. In addition, Section VII.A of Attachment E to the MS4 Permit requires maps of the drainage areas associated with the outfalls and these were not provided. Section 1.3.2 of the WMP does note that 53 catchments are located in the watershed, and maps showing these drainage areas should be provided. If these are not readily available, a process and timeline for developing this spatial information should be included in the revised WMP.</p> |
| <p>Part VI.C.5.a.iv.(1) (Prioritization, page 60)</p> | <p>The MS4 Permit requires a strategy to implement pollutant controls necessary to achieve WQBELs and/or receiving water limitations (RWLs) with compliance deadlines that have already passed and limitations have not been achieved. The LA River metals TMDL includes interim wet and dry water quality-based effluent limitations with a compliance deadline of January 2012; the WMP needs to address the compliance status of the Permittees with these limitations, and ensure compliance.</p> <p>In Section 3.4.1.6, the draft WMP states, “[a]s recognized by the footnote in Attachment K-4 of the Permit, the Participating Agencies have entered into an Amended Consent Decree with the United States and the State of California, including the Regional Board, pursuant to which the Regional Board has released the Participating Agencies from responsibility for toxic pollutants in the Dominguez Channel and the Greater Los Angeles and Long Beach Harbors.”</p> <p>This statement misinterprets the Regional Water Board’s findings. Footnote 1 to Table K-4 of the LA County MS4 Permit states, “[t]he 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</p> |

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| | <p>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...”</p> <p>Further, the WQBELs in Attachment N, Part E of the LA County MS4 Permit and Part VIII.P of the Long Beach 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 MS4 Permittees from any obligation to implement the WQBELs in the MS4 permits.</p> |
| <p>Part VI.C.5.a.iv.(2)(a) (Prioritization, page 60)</p> | <p>Where data indicate impairment or exceedances of RWLs and the findings from the source assessment implicate discharges from the MS4, the Permit requires a strategy for controlling pollutants that is sufficient to achieve compliance as soon as possible. Although Section 3 includes a compliance strategy, the program needs to more clearly demonstrate that the compliance schedule (Section 5) ensures compliance is “as soon as possible.”</p> |
| <p>Part VI.C.5.b.iv.(5)(c) (Selection of Watershed Control Measures, page 64)</p> | <p>For waterbody-pollutant combinations not addressed by TMDLs, the MS4 Permit requires that the plan demonstrate using the reasonable assurance analysis (RAA) that the activities and control measures to be implemented will achieve applicable receiving water limitations as soon as possible. The RAA demonstrates the control measures would be adequate to comply with the limitations/deadlines for the “limiting pollutants” for TMDLs and concludes that this will ensure compliance for all other pollutants of concern. However, it does not address the question of whether compliance with limitations for pollutants not addressed by TMDLs could be achieved in a shorter time frame.</p> |
| <p>Part VI.C.5.b.iv.(4)(b)-(c) (Selection of Watershed Control Measures, page 63)</p> | <p>The MS4 Permit requires that the WMP provide specificity with regard to structural and non-structural BMPs, including the number, type, and location(s), etc. adequate to assess compliance. In a number of cases, additional specificity on the</p> |

| LA County MS4 Permit Provision* | Summary of Comments and Necessary Revisions |
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| | <p>number, type and general location(s) of watershed control measures as well as the timing of implementation for each is needed. (Regional Water Board staff notes, for example, that many watershed control measures in the implementation schedule only reference the year (or years) that a measure or milestone will be implemented. This should be revised to include more specific and/or exact dates where appropriate.)</p> <p>Additionally, many watershed control measures in the implementation schedule are ongoing measures that are not new interim milestones (e.g. MCMs, implementation of SB 346, enhanced street sweeping, etc.). For transparency, Regional Water Board staff recommends that ongoing measures clearly be separated from interim milestones for structural controls and non-structural BMPs in the implementation schedule.</p> <p>Regional Water Board staff recognizes uncertainties may complicate establishment of specific implementation dates, however there should at least be more specificity on actions within the current and next permit terms.</p> <p><u>Green Street Conversion:</u> The RAA identifies potential areas for green street conversion and assumes a 30% conversion of the road length in the suitable areas; however, the specific locations and projects are not identified. Although it may not be possible to provide detailed information on specific projects at this time, the WMP should at least commit to the construction of the necessary number of projects to ensure compliance with permit requirements per applicable compliance schedules.</p> <p><u>Reductions from New Non-structural Controls:</u> The WMP assumes a 10% pollutant reduction from new non-structural controls. Although 10% is a modest fraction of the overall controls necessary, additional support for this assumption should be provided, or as part of the adaptive management process, the Permittees should commit to evaluate this assumption during program implementation and develop alternate controls if it becomes apparent that the assumption is not supported.</p> |
| <p>Part VI.C.5.b.iv.(4)(b)-(c) (Selection of Watershed Control Measures, page 63)</p> | <p><u>Reductions in Irrigation Runoff:</u> For dry weather, the WMP assumes a 25% reduction in irrigation (which results in a 60% reduction in pollutant discharges);</p> |

| LA County MS4 Permit Provision* | Summary of Comments and Necessary Revisions |
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| | <p>additional support should be provided for this assumption, or as part of the adaptive management process, the Permittees need to commit to evaluate this assumption during program implementation and develop alternate controls if it becomes apparent that the assumption is not supported.</p> <p><u>Regional BMPs:</u> Section 1.4.2 of Attachment A to the RAA points out that additional potential regional BMPs were identified to provide the remaining BMP volume noted in Table 9-4. It indicates they can be found in Section 4 of the WMP (actually, they are found in Section 3). The RAA should clarify that sufficient sites were identified so that the remaining necessary BMP volume can be achieved by those sites that were not “excluded for privacy.”</p> <p><u>Industrial Facilities:</u> The draft WMP, including the RAA, excludes stormwater runoff from non-MS4 facilities within the WMA from the stormwater treatment target. In particular, industrial facilities that are permitted by the Water Boards under the Industrial General Permit or an individual stormwater permit were identified and subtracted from the treatment target.</p> <p>Regional Water Board staff recognizes that this was done with the assumption that these industrial facilities will retain their runoff and/or eliminate their cause/contribution to receiving water exceedances, as required by their respective NPDES permit. However, it is important that the Permittees’ actions under its Industrial/Commercial Facilities Program—including tracking critical industrial sources, educating industrial facilities regarding BMP requirements, and inspecting industrial facilities—ensure that all industrial facilities are implementing BMPs as required.</p> <p><u>Caltrans Facilities:</u> The draft WMP, including the RAA, takes a similar approach for areas under the jurisdiction of the California Department of Transportation (Caltrans). Caltrans facilities that are permitted under the Caltrans MS4 permit (Order No. 2012-0011-DWQ) were also identified and subtracted from the treatment target.</p> <p>It should be noted that the Amendment to the Caltrans Permit (Order WQ 2014-0077-DWQ) includes provisions to address TMDL requirements throughout the state. Revisions to Attachment IV of the Caltrans Permit require that Caltrans prioritize all TMDLs for implementation of source control measures and BMPs, with</p> |

| LA County MS4 Permit Provision* | Summary of Comments and Necessary Revisions |
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| | <p>prioritization being “consistent with the final TMDL deadlines to the extent feasible.”</p> <p>Additionally, the Caltrans Permit also includes provisions for collaborative implementation through Cooperative Implementation Agreements between Caltrans and other responsible entities to conduct work to comply with a TMDL. By contributing funds to Cooperative Implementation Agreements and/or the Cooperative Implementation Grant Program, Caltrans may receive credit for compliance units, which are needed for compliance under the Caltrans Permit.</p> <p>In a similar manner, the LA County MS4 Permit includes provisions for Permittees to control the contribution of pollutants from one portion of the shared MS4 to another portion of the MS4 through interagency agreements with other MS4 owners—such as Caltrans—to successfully implement the provisions of the Order (see Parts VI.A.2.a.viii and VI.A.4.a.iii). Therefore, the Permittees should ensure that they are closely coordinating with appropriate Caltrans District staff regarding the identification and implementation of watershed control measures to achieve water quality requirements (i.e. applicable Receiving Water Limitations and WQBELs).</p> <p>Regional Water Board Staff recognizes that the Group has taken the initial steps for such collaboration since Caltrans participates in the Group and the draft WMP notes Caltrans in its strategies for runoff reduction and total suspended solids reduction.</p> |
| <p>Part VI.C.5.b.iv.(4)(c) (Selection of Watershed Control Measures – SB 346 Copper Reductions)</p> | <p>The draft WMP appears to rely heavily on the phase-out of copper in automotive brake pads, via approved legislation SB 346, to achieve the necessary copper load reductions. Given the combination of other Cu sources identified in various LA TMDLs such as building materials, other vehicle wear, air deposition from fuel combustion and industrial facilities, and that SB 346 progressively phases out Cu content in brakes of new cars (5% by weight until 2021, 0.5% by weight until 2025), then other structural and non-structural BMPs may still be needed to reduce Cu loads sufficiently to achieve compliance deadlines for interim and/or final WQBELs.</p> |
| <p>Part VI.C.5.b.iv.(1)(a)(ii) (Minimum Control Measures – Industrial/Commercial Facilities)</p> | <p>The Group proposes to alter the commercial and industrial facility inspection frequencies in Parts VI.D.6.d and VI.D.6.e of the LA</p> |

| LA County MS4 Permit Provision* | Summary of Comments and Necessary Revisions |
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| <p>Program)</p> | <p>County MS4 Permit.</p> <p>The proposed modification includes a prioritization process in which the MS4 Permittees rate applicable facilities as high, medium, or low priority. High priority facilities are inspected more frequently and low priority facilities are inspected less frequently. The prioritization scheme included in Figure ICF-1 prioritizes facilities by their potential water quality impact. However, the draft WMP also notes that Cities “may follow an alternative prioritization method provided it results in a similar three-tiered scheme.” The revised WMP should ensure that any alternative prioritization method used by a City must also be based on water quality impact. No statement to this effect was included.</p> <p>Furthermore, the draft WMP also notes that Cities can prioritize and reprioritize facilities at any time based on their discretion. The Group should revise their draft WMP to clearly state when the initial prioritization of facilities will occur. Additionally, the Group should be explicitly clear that during any reprioritization, the ratio of low priority to high priority facilities must always remain at 3:1 or lower to maintain inspection frequencies identified in the draft WMP.</p> |
| <p>Part VI.C.5.b.iv.(5)</p> | <p>The RAA identifies zinc as the limiting pollutant and notes that this pollutant will drive reductions of other pollutants.</p> <p>If the Group believes that that this approach demonstrates that activities and control measures will achieve applicable receiving water limitations, it should explicitly state and justify this for each category 1, 2, and 3 pollutant.</p> |
| <p>Part VI.C.5.c.iii.(3) (Compliance Schedules – Bacteria)</p> | <p>The draft WMP proposes a final compliance date of September 2030 for bacteria in the LA River Estuary. However, the Group does not provide sufficient justification for this date. The compliance date for the lower Reach 2 and Reach 1 of the LA River is 2024 for achieving the dry-weather WQBELs. A Load Reduction Strategy must be submitted for this segment (Segment A in the TMDL) by September 2016. These dates are more appropriate to guide the schedule to address bacteria discharges during dry weather to the LA River Estuary.</p> <p>Additional milestones and a schedule of dates for achieving milestones should be defined for addressing bacteria discharges</p> |

| LA County MS4 Permit Provision* | Summary of Comments and Necessary Revisions |
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| | to the LA River Estuary. |

*Equivalent provisions are also found in the Long Beach MS4 Permit

Los Angeles Regional Water Quality Control Board

TO: Lower Los Angeles River Watershed Management Group

FROM: C.P. Lai, Ph.D., P.E. and Thanhloan Nguyen
LOS ANGELES REGIONAL WATER QUALITY CONTROL BOARD

DATE: October 27, 2014

SUBJECT: COMMENTS ON REASONABLE ASSURANCE ANALYSIS REPORT FOR
LOWER LOS ANGELES RIVER WATERSHED MANAGEMENT AREA

This memorandum contains comments on the Reasonable Assurance Analysis (RAA), dated June 27, 2014, which was submitted by the Lower Los Angeles River Watershed Management Group.

- A. General comments on the draft Reasonable Assurance Analysis (RAA) section of the Watershed Management Program.
1. The Lower Los Angeles River Watershed Management Area (LLAR WMA) is subject to interim and final water quality-based effluent limitations pursuant to Attachment O, Part A "Los Angeles River Watershed Trash TMDL, Part B "Los Angeles River Nitrogen Compounds and Related Effects TMDL", Part C "Los Angeles River and Tributaries Metals TMDL", and Part D "Los Angeles River Watershed Bacteria TMDL". To the extent that MS4 Permittees within the LLAR WMA discharge directly to the Los Angeles River Estuary and/or San Pedro Bay, those discharges are subject to the WQBELs in Attachment N, Part E "Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants TMDL".¹

To the extent that discharges to the Los Angeles River Estuary are to be addressed by the LLAR WMP, pursuant to Part VI.C.5.a.iv(1) and VI.C.5.b.iv, pages 60 and 62-63 of the LA County MS4 Permit, the Lower Los Angeles River Group is required to conduct a reasonable assurance analysis to demonstrate that the WQBELs that are established in the Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants TMDL shall be achieved through implementation of the watershed control measure proposed in the WMP. However, the Dominguez Channel and Greater Los

¹ The LLAR WMP states that, "[a]ll of the Lower LAR Agencies ... discharge to the LAR above the Estuary." It also states, "[t]he areas under [the Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants] TMDL discharging directly to the Los Angeles and Long Beach Harbors will be addressed separately in the Long Beach individual WMP..." (Section 3.4.1.6, p. 3-29). It is unclear whether discharges from the City of Long Beach to the Los Angeles River Estuary are being addressed in the LLAR WMP or in a separate individual WMP submitted by the City of Long Beach. In section 3.4.1.5, the draft WMP states, "[t]his Watershed Management Program incorporates the LARE..." (p. 3-28). Clarification is needed as to whether the LLAR WMP addresses discharges to the Los Angeles River Estuary or not.

Angeles and Long Beach Harbor Waters Toxic Pollutants TMDL was appears to be completely omitted from the draft WMP. The draft WMP did not include and analyze a strategy to implement pollutant controls necessary to achieve all applicable interim and final water quality-based effluent limitations and/or receiving water limitations with interim or final compliance deadlines within the permit term pursuant to the corresponding compliance schedules in the Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants TMDL.

2. The draft Lower Los Angeles River WMP identified water quality priorities for Los Angeles River (Estuary, Reaches 1 and 2), Compton Creek, and Rio Hondo), but not for San Pedro Bay. Pursuant to Section VI.C.5.a., the WMP should be revised to include an evaluation of existing water quality conditions, classify them into categories, identify potential sources, and identify strategies, control measures, and BMPs as required in the permit for San Pedro Bay unless MS4 discharges from the LLAR WMA directly to San Pedro Bay are being addressed in a separate WMP.
 3. The draft WMP provided corresponding implementation schedules for nonstructural BMPs, which are assumed to result a 10% reduction in pollutant load. For structural BMPs, general implementation timeframes are given for the Proposition 84 Grant Award projects (section 5.2), implementation of the Planning and Land Development Program by Permittees (section 5.3.1), and wet weather volume reductions to meet 31% and 50% of the compliance target by 2017 and 2024, respectively. However, greater specificity should be provided with regard to these dates, and additional milestones and dates for their achievement between 2017 and 2024 should be included.
- B. Modeling comments regarding analysis of copper, lead, zinc, DDT, PCB, PAH, and bacteria concentrations/loads in Appendix A-4-1 of the draft Lower Los Angeles River WMP:
1. The model predicted stormwater runoff volume is used as a surrogate for required pollutant load reductions for wet weather conditions. Thus, the predicted flow volume becomes a very important parameter for evaluating required volume reductions and BMP scenarios. Based on the results of the hydrology calibration shown in Table 4-2 and Table 4-3, the error differences between modeled flow volumes and observed data are 11.88% for the Lower Los Angeles River. For calibration purposes, upstream flow volume should be included to determine whether that improves the model performance to within the "Good" or "Very Good" range, per the RAA Guidelines. Once model calibration has been completed, the upstream flow volume can then be excluded when presenting the volume reduction targets in Tables 8-1 to 8-4.
 2. While we understand that there is significant reliance on a volume-based approach, the predicted baseline concentrations and loads for all modeled pollutants of concern, including TSS, should be presented in summary tables for wet weather conditions. This model output should be available, since it is the basis for the percent reductions in pollutant load presented in Table 5-6. (See Table 5. Model Output for Both Process-based BMP Models and Empirically-based BMP Models, pages 20-21 of the RAA Guidelines).
 3. Further, the differences between baseline concentrations/loads and allowable concentrations/loads should be presented in time series for each pollutant under long-term continuous simulation and as a summary of the differences between pollutant

concentrations/loads and allowable concentrations/loads for the critical wet weather period. (See Table 5. Model Output for Both Process-based BMP Models and Empirically-based BMP Models, pages 20-21 of the RAA Guidelines).

4. We note that modeling was not conducted for organics (DDT, PCBs, and PAHs). It is not clear why these pollutants were not modeled or why previous modeling of these pollutants could not be used, such as that conducted during the development of the Dominguez Channel and Greater LA and Long Beach Harbor Waters Toxic Pollutants TMDL. An explanation for the lack of modeling is needed.
5. The report presents the existing runoff volumes, required volume reductions and proposed volume reductions from BMP scenarios to achieve the 85th percentile, 24-hour volume retention standard for each major watershed area. The same information on the runoff volume associated with the 85th percentile, 24-hour event and the proposed runoff volume reduction from each BMP scenario also needs to be presented for each modeled subbasin (e.g., a series of tables similar to 8-1 through 8-4 and 9-4 through 9-7). See Table 5 of the RAA Guidelines. Additionally, more explanation is needed as to what constitutes the “incremental” and “cumulative” critical year storm volumes in tables 9-4 through 9-7 and how these values were derived from previous tables.
6. The report needs to present the same information, if available, for non-stormwater runoff. Alternatively, the report should include a commitment to collect the necessary data in each watershed area, through the non-stormwater outfall screening and monitoring program, so that the model can be re-calibrated during the adaptive management process to better characterize non-stormwater flow volumes and to demonstrate that proposed volume retention BMPs will capture 100 percent of non-stormwater that would otherwise be discharged through the MS4 in each watershed area.
7. The ID number for each of the 147 subwatersheds from the model input file should be provided and be shown in the simulation domain to present the geographic relationship of subwatersheds, within each watershed area, that are simulated in the LSPC model.