

Los Angeles Regional Water Quality Control Board

April 28, 2016

John C. Dettle, P.E.
Engineering Manager
City of Torrance, Public Works Department
20500 Madrona Avenue
Torrance, CA 90503

NOTICE OF UNSATISFACTORY SUBMITTAL: CITY OF TORRANCE'S MACHADO LAKE SUBWATERSHED SUPPLEMENT TO THE BEACH CITIES ENHANCED WATERSHED MANAGEMENT PROGRAM (EWMP), 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 AS AMENDED BY STATE WATER BOARD ORDER WQ 2015-0075)

Dear Mr. Dettle:

On November 8, 2012, the California Regional Water Quality Control Board, Los Angeles Region (Los Angeles Water Board or Board) adopted Order No. R4-2012-0175, *Waste Discharge Requirements for Municipal Separate Storm Sewer System (MS4) Discharges within the Coastal Watersheds of Los Angeles County, except those Discharges Originating from the City of Long Beach* (hereafter, LA County MS4 Permit). Part VI.C of the LA County MS4 Permit allows Permittees the option to develop either a Watershed Management Program (WMP) or an 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 allows a Permittee to address the highest watershed priorities, including complying with the requirements of Part V.A (Receiving Water Limitations), Part VI.E and Attachments L through R (Total Maximum Daily Load Provisions), and by customizing the control measures in Parts III.A (Prohibitions – Non-Storm Water Discharges) and VI.D (Minimum Control Measures), except the Planning and Land Development Program. Pursuant to Part VI.C.4.c.iv of the LA County MS4 Permit, the City of Torrance (City) submitted the Machado Lake Nutrient and Toxics Total Maximum Daily Load (TMDL) BMP Implementation Plan as Appendix D (Supplement) to the Beach Cities Watershed Management Group's (Group or Beach Cities)¹ draft EWMP on June 26, 2015 to the Los Angeles Water Board for review.

¹ Permittees of the Beach Cities Watershed Management Group include the Cities of Redondo Beach, Hermosa Beach, Manhattan Beach, and Torrance, and the Los Angeles County Flood Control District.

Public Review and Comment

On July 1, 2015, the Los Angeles Water Board provided public notice and a 61-day period to allow for public review and written comment on the draft EWMPs. A separate notice of availability regarding the draft EWMPs was directed to State Senators and Assembly Members within the Coastal Watersheds of Los Angeles County. The Board received four written comment letters in total. The comment letter submitted by the Construction Industry Coalition on Water Quality (CICWQ) had comments on the twelve EWMPs generally. The comment letter submitted jointly by the Natural Resources Defense Council (NRDC), Heal the Bay, and Los Angeles Waterkeeper (Environmental Groups) contained specific comments on four of the twelve EWMPs², comments specific to the Beach Cities' EWMP were raised. The two remaining letters, from the Los Angeles County Sanitation Districts and Ms. Joyce Dillard, contained specific comments on various EWMPs; however, no comments specific to the Beach Cities' EWMP were raised.

On July 9, 2015, the Board held a public workshop at its regularly scheduled Board meeting on the draft EWMPs. On November 5, 2015, again during its regularly scheduled Board meeting, the Board held a second public workshop on the draft EWMPs. The Board held a third public workshop on March 3, 2016 for Permittees and interested persons to comment on and discuss the revised EWMPs with the Executive Officer, Board members, and staff. During our initial review of the Group's draft EWMP, including the City's Supplement, the Los Angeles Water Board considered written comments and comments made at these workshops that were applicable to the Group's EWMP, including the City's Supplement.

Los Angeles Water Board Review

Concurrent with the public review, the Los Angeles Water Board reviewed the Group's EWMP, including the City's Supplement. As part of the review process, Los Angeles Water Board staff had a meeting on October 15, 2015, teleconferences on December 9, 2015 and December 15, 2015, and other telephone and email exchanges with the Group's representatives and consultants to discuss Board staff's questions, tentative comments, and potential revisions to the EWMP, including the Supplement. On October 22, 2015, the Los Angeles Water Board sent a letter to the Group detailing the Board's comments on the draft EWMP and identifying the revisions that needed to be addressed prior to the Board's approval of the EWMP. Where appropriate, the public's comments were incorporated into the Board's review letter on the draft EWMP to ensure that the public's comments were addressed appropriately in the revised EWMP.

In response to some of those comments, the City opted to revise its Machado Lake Nutrient and Toxics TMDL BMP Implementation Plan (Supplement), initially submitted as Appendix D of the Group's draft EWMP, to wholly fulfill the elements and analyses required of an EWMP for the Machado Lake subwatershed area within the Beach Cities Watershed Management Area.

² These four EWMPs were the North Santa Monica Bay EWMP, Upper San Gabriel River EWMP, Upper Los Angeles River EWMP, and Beach Cities EWMP.

As part of the review process, the Los Angeles Water Board had a meeting on January 21, 2016 and other telephone and email exchanges with the City's representatives and consultants to discuss Board staff's questions, tentative comments, and revisions to the Supplement. On February 12, 2016, the Los Angeles Water Board sent a letter to the City detailing the Board's comments on the Supplement and identifying the revisions that needed to be addressed prior to the Board's approval of the Supplement. Where appropriate, the public's comments were incorporated into the Board's review letter on the Supplement to ensure that the public's comments were addressed appropriately in the revised Supplement. The City submitted a revised Supplement on March 11, 2016 and additional revisions to the Reasonable Assurance Analysis (RAA) section³ on April 18, 2016 for Los Angeles Water Board review and approval. The Los Angeles Water Board approved the Beach Cities Group EWMP on April 18, 2016, and stated that the City's Supplement will be addressed through separate correspondence (this letter).

The Los Angeles Water Board has reviewed the City's revised Supplement as submitted on March 11, 2016 and additional revisions to the RAA section as submitted on April 18, 2016. Board staff discussed its review with the City and its consultant on April 26, 2016 via a teleconference. Based on its review of revised Supplement and RAA, the Los Angeles Water Board has determined that the revised Supplement and RAA do not yet meet the requirements of an EWMP pursuant to Part VI.C of the LA County MS4 Permit. The general inadequacies in the revised Supplement and RAA, as currently submitted, are as follows:

1. Insufficient RAA conducted for Category 2 and 3 pollutants associated with Wilmington Drain and Machado Lake.
2. Insufficient specificity on how proposed BMPs will address Category 2 and 3 pollutants associated with Wilmington Drain and Machado Lake.
3. Necessary refinements to presentation of RAA results for Category 1 pollutants (except trash) for Machado Lake.
4. The Supplement presents various BMP Options to address each sub-basin. In several cases, the Supplement is ambiguous on which Option is recommended within a sub-area. As a result, the basis for the load reductions/volume capture is unclear in several instances.
5. The usage of the terms "Potential BMP(s)" and "Potential Nonstructural BMP(s)" instead of "proposed" introduces uncertainty with regard to BMP implementation as presented in the Supplement.

Detailed comments and necessary revisions to the Supplement are itemized in Enclosure 1.

As the City of Torrance has not met all four requirements for development and approval of an EWMP as set forth in Part VI.C.3.b of the LA County MS4 Permit, for all Machado Lake

³ Section 3.1, Table 3.3, Section 3.4.1.3, Table 3.6a, Table 3.7, Section 5.3.4.1, Table 5.5, Table 5.6, Table 5.9, Table 5.11.

subwatershed WBPCs⁴ within the City's jurisdiction, the City is subject to baseline requirements of the LA County MS4 Permit. The City shall demonstrate compliance with Part V.A (Receiving Water Limitations), Part VI.E (Total Maximum Daily Load (TMDL) Provisions) subparts VI.E.2.d.i.(1)-(3) and VI.E.2.e.i.(1)-(3), and applicable interim and final WQBELs in Attachment N Parts B-D of the LA County MS4 Permit. For WBPCs that are not addressed by a TMDL, compliance with receiving water limitations will be determined by verification through monitoring that the receiving water limitation provisions in Part V.A.1 and 2 of the LA County MS4 Permit have been achieved.

Adaptive Management

As part of the adaptive management process or earlier, the City may choose to modify their Supplement to the Beach Cities EWMP to address the current inadequacies for all Machado Lake subwatershed WBPCs within the City's jurisdiction; this includes the inadequacies detailed in Enclosure 1. Alternatively, as part of the adaptive management process, the Beach Cities Watershed Management Group may choose to modify their EWMP to integrate the Machado Lake subwatershed WBPCs.

As part of the adaptive management process, any future modifications to the Supplement, including any requests for extension of deadlines not associated with TMDL provisions, must be submitted to the Los Angeles Water Board for review and approval. The City must implement any modifications to the Supplement upon approval by the Los Angeles Water Board or its Executive Officer, or within 60 days of submittal of modifications if the Los Angeles Water Board or its Executive Officer expresses no objections. Note that while the first adaptive management process is scheduled for April 30, 2018, the Group's ROWD is due no later than July 1, 2017.

The Los Angeles Water Board appreciates the participation and cooperation of the Permittees in the Beach Cities Watershed Management Group and the City of Torrance in the implementation of the LA County MS4 Permit. If you have any questions, please contact Ms. Erum Razzak of the Storm Water Permitting Unit 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, at Ivar.Ridgeway@waterboards.ca.gov or by phone at (213) 620-2150.

Sincerely,



Samuel Unger, P.E.
Executive Officer

⁴ As listed in Table 1.3 of the Supplement, Wilmington Drain WBPCs are: Category 1 (None); Category 2 (Coliform Bacteria, Copper, Lead); and Category 3 (Total Nitrogen, DDT, PCB, Chlordane, Dieldrin). Machado Lake WBPCs are: Category 1 (Trash, Total Phosphorous, Total Nitrogen, Ammonia, Chlorophyll-a, PCBs, DDTs, Chlordane, Dieldrin, Dissolved Oxygen); Category 2 (None); and Category 3 (E. coli, pH). Note that Table 1.3 excluded DDTs for Machado Lake as a Category 1 pollutant but that is being regarded as a typographical error because the Supplement addresses DDTs in some sections.

Enclosures: Enclosure 1 – Summary of Comments and Necessary Revisions to the Supplement
Beach Cities Watershed Management Group Distribution List

Los Angeles Regional Water Quality Control Board

Enclosure 1 – Summary of Comments and Necessary Revisions to the Supplement

City of Torrance

1. Revise Table 1.3 to add DDT (sed.) as a Category 1 pollutant for Machado Lake.
2. Revise the final allocation values for PCBs/DDT/Dieldrin/Chlordane in Tables 3.6b (footnote 4) and 3.7 to be consistent with the Los Angeles and Long Beach Harbors Toxic and Metals TMDL target values.
3. Revise the interim and final dates in Table 1.4 to be consistent with Attachment N Part C.2 of the LA County MS4 Permit.
4. Revise the RAA to address the following:
 - a. Incorporate the RAA revisions submitted to the Los Angeles Water Board on April 18, 2016 to the Supplement.
 - b. Clearly define “Implementation Area” and the 85th Percentile basins on figures. Confirm and clarify in a footnote to Table 3.6a that the sub-areas listed cover the entire “Implementation Area” shown in Figure 1.1. That is, the area, total runoff volume, and baseline loads for “Airport” include the sum of those for AS1, AS2, and AS3 subcatchments as shown on Figure 5.4; “Walnut Sump” includes WS-1, WS-2, and WS-3 subcatchments as shown on Figure 5.8; and “Baseball Field” includes BB-S1, BB-S2, BB-S3, and BB-S4 subcatchments as shown on Figure 5.13.
 - c. Explain how the small area in Figure 5.3, situated between Walnut Sump Sub-area to the north, and Airport Sub-area to the south, is addressed. It does not appear to be a part of either area based on an examination of Figures 5.4 and 5.8, though it seems it should be included in the Walnut Sump Sub-area based on the storm drain network shown on Figure 5.8.
 - d. Revise Tables 3.6a and 3.6b to reflect the total annual runoff volume generated from the Walteria sub-area, as simulated for 2005. Add a footnote to tables to explain that not all runoff generated in this sub-area is ultimately discharged to Machado Lake, because of how Walteria Lake is managed as a stormwater detention basin. Add a figure to clarify the subwatershed areas related to Tables 3.6a/3.6b and 3.7. Exclude load from Walteria Lake during pumping periods.
 - e. The baseline loads for runoff volume, TSS, TN, TP, and “Toxics” are presented in Table 3.6a. Revise this table to list the baseline concentrations and loads for fecal coliform, lead, copper, and the specific toxic pollutants (PCBs, DDT, Dieldrin, and Chlordane).
 - f. Include the specific calculations relating toxic pollutant load reductions to TSS load reductions for each drainage/sub-drainage area and option, as presented in Tables 5.5, 5.6, 5.7, and 5.9. (Appendix G provides general information relating toxic pollutant load reductions to TSS load reductions.) Present load reduction by subbasin in Table 5.7. Include volume reduction in Table 5.7 where applicable.
5. In Table 5.2, add Walteria Lake and note that it is managed as a stormwater detention basin. Indicate its capacity relative to the 85th percentile, 24-hour volume for the Walteria Lake Subcatchment shown on Figure 5.4.
6. Address “Airport Southeast” sub-area in Section 5.3.4. This could be accomplished by collaborating with other LA County MS4 Permittees to address runoff from this area (e.g.,

- Palos Verdes Peninsula EWMP Group). Add table and description for "Alta Loma Watershed" at southeast tip of the City and describe proposed BMP for Alta Loma Park.
7. Correct text in Section 5.3.4.2, Subcatchment AS-1, which states on pg. 69 that, "The load reductions listed in the table are based on volume reduction." Stormwater from Subcatchment AS-1 is being treated solely with catchbasin filters and street sweeping; therefore, load reductions cannot be a result of volume reduction. Throughout the document, revise references to catch basin filters as *volume* capture/retention BMPs to *treatment* BMPs (Section 5).
 8. Revise Table 5.6 to add a column for annual runoff volume values "Before BMP," "After BMP," and "% Volume Reduction" for each subcatchment, AS2 and AS3.
 9. Correct and/or clarify discussion in Sections 5.3.4.1 and 5.3.4.2, related to Subcatchments AS-2 and AS-3. For example, at the top of pg. 68, it states that the total capacity of sites A1 and A2 is 34.4 ac-ft and, therefore, AS2 and AS3 can be designated as "85th Percentile Basins." Similarly, on pg. 70, BMP capacity at sites A1 and A2 is compared to the 85th percentile, 24-hour volume of subcatchments AS2 and AS3. However, BMP sites A1 and A2 do not address Subcatchment AS3, according to pg. 66. According to the plan, they address Walteria Lake discharges and Subcatchment AS2, respectively. Though, on pg. 70, it is suggested that runoff from subcatchments AS2 and AS3 will be treated at site A2 (though it only has a capacity of 12 ac-ft, while the volume associated with AS2 and AS3 totals 30 ac-ft per Table 5.3).
 10. Update discussion in Sections 5.3.4.1 (pg. 67) and 5.3.4.3 (pg. 80) to include BMP Site A3, which according to the conference call with the City on 4-26-16, is being pursued to address stormwater from Subcatchment AS3.
 11. Clarify which area (on Figure 5.8) represents the drainage area to SD-1040 (i.e. WS-3).
 12. Correct Section 5.3.5 on pg. 83 to indicate that Option 1 is the recommended option, not Option 2. Also in Section 5.3.5, make consistent the discussion on pg. 83 and pg. 91 regarding the order of Phases I-III.
 13. Align Figures 5.8 and 5.9 so that they show the same subcatchments for the Walnut Sump sub-area. Currently, Figure 5.8 shows three subcatchments, while Figure 5.9 shows only two. Relatedly, revise Section 5.3.5 to match subcatchment nomenclature in the figures. Currently, the text refers to "subarea SD-1040," yet the Figures use WS-1, WS-2, and WS-3 to name subcatchments. Additionally, clarify that SD-1040 refers to the storm drain ID and not the subarea.
 14. Confirm that, and revise, Table 5.9 to indicate that the load reductions presented are for Option 1. Break down the table data by subcatchment, i.e., WS-1, WS-2, and WS-3. Clarify whether any portion of the load reductions in Table 5.9 is attributable to the catchbasin filters to be installed in WS-1. (According to the text, the answer to this is "no": "The simulations do not include non-structural BMPs such as ... catch basin filter." (pg. 83). If this is the case, Table 5.9 would only indicate pollutant load reductions associated with volume reductions in WS-2 and WS-3. Note (1) should also be revised or deleted, as appropriate.)
 15. Include bacteria and metal reductions in Table 5.9 for WS-2 and WS-3, and include runoff volume reduction in all load reduction tables where applicable.
 16. Revise Table 5.9 to add a column for annual runoff volume for each subcatchment "Before BMP," "After BMP," and "% Volume Reduction."
 17. Revise Table 5.11 to break down the table data by subcatchments within Option 1 and Option 2, i.e., BB-S1, BB-S2, BB-S3, BB-S4. Clarify what portion, if any, of the load reductions in Table 5.11 is attributable to the catch basin filters to be installed in BB-S1, BB-S2, and BB-S4 under Option 1, and in the applicable subcatchments in Option 2 (where 23 full capture filter screens would be installed). (The text and table are inconsistent. The text states, "Table 5.11 shows the load reduction associated with each option. The load reductions listed in the table are based on volume reduction", while Note (1) to Table 5.11

- states, "Load reduction by combined non-structural and structural BMPs.") If the former is the case, Table 5.11 should indicate that for Option 1, pollutant load reductions are solely attributable to volume reduction from subcatchment BB-S3, and that pollutant load reductions under Option 2 are solely attributable to stormwater retention from BB-S1 - BB-S4. If the latter is the case, as stated above, the Summary of Load Reduction should be further broken down by that attributable to volume reduction (for stormwater retention BMPs) and that attributable to catchbasin filters and any other treatment BMPs.
18. Revise Table 5.11 to add a column for annual runoff volume for each subcatchment under Option 1 and Option 2 for "Before BMP," "After BMP," and "% Volume Reduction."
 19. Add to Tables 5.6, 5.9 and 5.11 columns for bacteria, copper, and lead, for subcatchments AS2, AS3, BB-S3, WS-2, and WS3 (all 85th percentile subcatchments), indicating load "Before BMP," "After BMP," and "% Load Reduction" based on a linear relationship to volume reduction in these subcatchments and the baseline loads pulled from WMMS for these areas.
 20. Update Table 5.1 on pg. 56 to include bacteria and metals (lead and copper).
 21. Revise Table 5.2 (pg. 58) to remove "filters" from title and column headings as this table is only a summary of the number of catchbasins in the Implementation Area.
 22. Ensure that it is clear for all tables of load reductions from quantified BMPs, which BMP Option(s) are being evaluated.
 23. In Section 6.3, in Table 6.2 on pg. 109, total BMP treatment capacity for AS3 is listed as 38 ac-ft, while in Table 5.3 it is listed as 32.8 ac-ft. Please clarify or correct.
 24. Revise Section 6.6 to clarify that the proposed BMPs have sufficient capacity to capture and infiltrate the 85th percentile, 24-hour volume from Subcatchments AS2, AS3, WS2, WS3, and BB-S3, while the remaining Subcatchments (including AS1, WS1, BB-S1, BB-S2, and BB-S4) will be addressed through distributed BMPs and non-structural BMPs (such as catch basin filters and street sweeping), and may be addressed through additional structural BMPs in the future. Also, indicate whether proposed BMPs for Walteria Lake and Airport Southeast Subcatchments have sufficient capacity to capture and infiltrate the 85th percentile, 24-hour volume.
 25. Update Table 9.2 to include BMP at Site A3.
 26. Revise Section 3.2.1 to assess potential sources of lead and copper (not zinc) to the EWMP area. Revise Section 3.5 to include base loads for copper by sub-area.
 27. Revise all sections describing the various Options and Phasing for proposed BMPs to clearly and correctly identify which Option the City has selected and the recommended phasing associated with the chosen Option.
 28. Revise terms such as "Potential BMP(s)" and "Potential Nonstructural BMP(s)" to "Proposed BMP(s)" and "Proposed Nonstructural BMP(s)".
 29. Complete the RAA for Category 2 and 3 pollutants as identified in Table 1.3 and revise the Supplement to include the modeling results in the appropriate sections/tables/figures. (Baseline loads have been presented, but an evaluation of load reductions based on the proposed structural BMPs has not been performed.)
 30. Attachment G of the Implementation Plan includes technical details for the catch basin filters proposed for implementation in the BMP Implementation Area but clearly states that Coliform bacteria are not effectively removed by the skimmer boxes. Hence, the proposed catch basin inserts are not suitable for addressing bacteria as a pollutant and should not be considered in the RAA for such purpose.
 31. Specify how proposed BMPs will address Category 2 and 3 pollutants for Wilmington Drain and Machado Lake (i.e. pollutant load reduction, volume capture).
 32. Revise the Supplement to explicitly state that MCMs will be implemented as written in the LA County MS4 Permit, or that they will be enhanced (as described in the Supplement).
 33. Revise Financial Strategy Section 9.3 as follows:

- a. Include the amount and source of current monetary funds to install and implement the BMPs proposed for the milestones in the current permit cycle.
 - b. Provide a timeline to search for funding with consideration of the milestones indicated in the Supplement.
 - c. The City's annual budget for catch basin cleaning and street sweeping is provided in Section 9.3. Revise this section to include information on the City's annual budget for its entire stormwater program. Describe how the selection of program/projects and schedules maximizes the effectiveness of funds through the analysis of alternatives, and addresses human health and water quality related challenges and non-compliance.
34. Correct the typographical errors on the following pages/sections:
- a. Section 2.1, pg. 15: correct statistic on % of City in TMDL Implementation Area; percentage should be 32% not 23%.
 - b. "catch basin filter" – Table 4.2 under Pollutant Source (should say catch basin or catchment area)
 - c. "...refinement of the MdR EWMP." – page 129
 - d. Correct the pollutant load titles and measurements (kg/yr vs. lb/yr) to be consistent between Tables 5.4, 5.5, and 5.6.
 - e. Correct Table 3.6b footnotes (4) and (5). Table 3.6b contains footnotes (4) and (5) under the Table, but there are no (4) or (5) notations within the table (only notations 1, 2, and 3 are actually in the table).
 - f. Correct value for TP load after BMP for Option 1 in Table 5.11.
 - g. In Section 6.2, the reference to Table 11 is unclear on pg. 108. There does not appear to be a Table 11.

Beach Cities Watershed Management Group

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