

Los Angeles Regional Water Quality Control Board

December 31, 2015

Marina del Rey Watershed Management Group*
(See Distribution List)

REVIEW OF THE MARINA DEL REY WATERSHED MANAGEMENT GROUP'S DRAFT 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 Permittees of the Marina del Rey Watershed Management Group:

The Regional Water Board has reviewed the draft monitoring program submitted on June 26, 2014 by the Marina del Rey Watershed Management Group (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 **February 29, 2016**. The revised CIMP must be submitted to losangeles@waterboards.ca.gov with the subject line "LA County MS4 Permit – Revised Marina del Rey Watershed Management Group CIMP" with a copy to Ivar.Ridgeway@waterboards.ca.gov and Rebecca.Christmann@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

* Permittees of the Marina del Rey Watershed Management Group include the County of Los Angeles, the cities of Los Angeles and Culver City, and the Los Angeles County Flood Control District.

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. Rebecca Christmann of the Storm Water Permitting Unit by electronic mail at Rebecca.Christmann@waterboards.ca.gov or by phone at (213) 576-5734. 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, P.E.
Executive Officer

Enclosures: Enclosure 1 – Summary of Comments and Required Revisions
Enclosure 2 – Toxicity Testing Clarification Memo
Marina del Rey Watershed Management Group Distribution List

Los Angeles Regional Water Quality Control Board

**Enclosure 1 to December 31, 2015 Letter Regarding the Marina del Rey Watershed
Draft Coordinated Integrated Monitoring Program,
Pursuant to Part VI.B and Attachment E, Part IV.B of the LA County MS4 Permit
(Order No. R4-2012-0175)**

**Summary of Comments and Required Revisions to the
Draft Coordinated Integrated Monitoring Program**

CIMP Reference	MRP Element/Reference (Attachment E)	Summary of Comments and Necessary Revisions
General Comments		
Appendix D	Attachment D Part III.B (page D-5) and Attachment E Part III.G (page E-6)	<p>Revise Appendix D of the draft CIMP to specify the following:</p> <ul style="list-style-type: none"> Mercury shall be analyzed per EPA Method 245.7 or 1631E not method 245.1; and High Resolution Mass Spectrometry was not included in the CIMP. It is preferable samples be analyzed using EPA Methods 8270 or 1668C (as appropriate), which was included in the CIMP, and High Resolution Mass Spectrometry. Monitoring for PCBs in sediment or water will be reported as the summation of a minimum of 40 (and preferably at least 50) congeners and Aroclors as specified in Table E-2 of the Attachment E of the Permit. See Table C8 in the state’s Surface Water Ambient Monitoring Program’s Quality Assurance Program Plan (Page 72 of Appendix C), which can be downloaded at http://www.waterboards.ca.gov/water_issues/programs/swamp/docs/qapp/qaprp082209.pdf for guidance.
Receiving Water Monitoring		
Sections 2.2.1 & 2.3, pp. 14-17	Attachment E Part VI.C.1.b page E-15	Section 2.2.1, of the CIMP states, “Grab sampling will be conducted at the MdRH-MC receiving water station three times per year, including the first storm of the year equal to or greater than 0.1 inch.” The revised CIMP needs to clearly state that the first significant rain event of the storm year will be monitored and two additional rain events within the same wet weather season will be monitored.
Sections 2.2.1 and Table 2-3	Attachment E Part VI.C.1.e, page E-16	Section 2.2.1 and Table 2-3 of the CIMP discusses monitoring of the screening parameters listed in Table E-2 of the MS4 Permit during wet weather. However, the revised CIMP needs to specify that if a parameter is detected exceeding the lowest applicable water quality objective then the parameter will be analyzed for the remainder of the Permit term during wet weather at the receiving water monitoring

CIMP Reference	MRP Element/ Reference (Attachment E)	Summary of Comments and Necessary Revisions
		station where it was detected.
Section 2.2, pp. 14-17	Attachment E Part VI.D.1, pp. E-16 - E-17	The CIMP does not propose dry weather receiving water monitoring. Section 2.2.1 states that there is minimal dry weather flows from the MS4 to the harbor because dry weather discharges are addressed through low flow diversions (LFDs). However, there are additional catch basins, which are located below the LFDs that could contribute dry weather flows to the harbor. The revised CIMP needs to include dry weather receiving water monitoring as required in Attachment E, Part VI.D of the LA County MS4 Permit.
Outfall Database		
Section 3.0, pp. 19 - 24 and Appendix G	Attachment E Part VII.A pp. E-20 - E-21	The revised CIMP needs to include the source(s) of the Geographic Information System (GIS) data used to generate the maps and database.
Stormwater Outfall Based Monitoring		
Section 4.2, pp. 26-27	Attachment E Parts VIII.B.1.b.i & VIII.B.1.b.ii, page E-22	Section 4.2, Monitored Parameters and Frequency, does not clearly define when storm water outfall monitoring will be performed at the outfall monitoring stations. The revised CIMP needs to clearly define the conditions when wet weather outfall monitoring will be performed. The revised CIMP also needs to require sampling of the first significant rain event of the year, and at least two additional wet weather events within the same storm year.
Section 4.2, pp. 26-27	Attachment E Parts VIII.B.1.b.iii, page E-22	Section 4.2, Monitored Parameters and Frequency, does not clearly state that monitoring the first rain event of the year, and at least two additional wet weather events within the same storm year will occur. The revised CIMP needs to clearly state that monitoring of storm water outfall discharges will occur during the first significant rain event of the year and at least two additional wet weather events within the same storm year.
Section 4.2 & Table 4-2, pp. 26-27	Attachment E Part VIII.B.1.c pp. E-22 & E-23	Section 4.2 and Table 4-2 lists the sampling parameters and frequency; however, a few parameters are missing, as follows: <ul style="list-style-type: none"> • Monitoring at outfall station MdR-3 will include monitoring for settleable solids, in addition to total dissolved solids and total suspended solids; • Monitoring at outfall station MdR-3 will include monitoring for bacteria; and • Aquatic toxicity testing shall be conducted in accordance with the August 7, 2015 Toxicity Testing Clarification Memo. The revised CIMP shall ensure that these changes are reflected throughout the document including within Appendix C.
Non-Stormwater Outfall Based Monitoring		

CIMP Reference	MRP Element/ Reference (Attachment E)	Summary of Comments and Necessary Revisions
Section 5.0, pp. 33 - 34	Attachment E Part IX.B.1 page E-24	<p>Section 5.0 of the CIMP discusses the non-stormwater outfall program and concludes the following.</p> <p>“Non-storm water outfall monitoring is considered to be neither feasible nor necessary in the MS4 of the Mdr Watershed. The watershed is strongly tidally influenced and tidal flow is not discernable from non-storm water discharges. In addition, improvements have been made to the MS4 infrastructure to mitigate and eliminate potential water quality impacts of the MS4 on the Harbor receiving waters. These improvements include the installation of LFDs upstream of the three major outfalls to Basin E, thus eliminating the need for outfall-based non-storm water monitoring in these systems.”</p> <p>Under the MdrH Bacteria TSO the City of Los Angeles, County of Los Angeles, and LACFCD were required to conduct non-storm water observations and sampling, if present. The revised CIMP shall summarize the dry weather non-storm water discharge observations and any actions taken to eliminate non-storm water discharges that are not authorized or conditionally exempted by the MS4 Permit.</p>
Section 5.0, pp. 33 - 34	Attachment E Part IX.B.2 page E-24	Revise the CIMP to include a process for reassessing the non-stormwater outfall screening and monitoring program within the current permit term pursuant to Attachment E, Part IX.B.2.
TMDL Monitoring Requirements		
Sections 2.2.3, pp. 13-15 and Appendix I	MdrH Toxic Pollutants TMDL	<p>The CIMP proposes to reduce the receiving water monitoring for copper from nine stations on a monthly basis to five stations on a monthly basis. Four of the receiving water stations will rotate each year; the fifth station located in the main channel will be monitored monthly. The Regional Water Board approves reducing the number of stations sampled monthly for copper from nine stations to five stations. However, the Regional Board does NOT approve of the proposed rotation presented in Figure 2-1 and Table I-2 in Appendix I. The monitoring stations located in Basins A, C, E, and G and the main channel will be sampled one month; the following month the monitoring stations located in the other Basins B, D, F and H and the main channel will be sampled. The receiving water sampling for copper will rotate in this manner from month-to-month.</p>
Sections 2.2.3, pp. 13-15 and Appendix I	MdrH Toxic Pollutants TMDL	<p>The CIMP proposes to reduce the receiving water monitoring for PCBs from monthly monitoring at four stations in the Back Basins to twice per year (summer and winter). The MdrH Toxics TMDL requires monthly monitoring of total PCBs at detection limits that are at or below the minimum levels. The minimum levels are those published by the State Water Resources Control Board in Appendix 4 of the</p>

CIMP Reference	MRP Element/ Reference (Attachment E)	Summary of Comments and Necessary Revisions
		<p>Policy for the Implementation of Toxic Standards for Inland Surface Water, Enclosed Bays, and Estuaries of California, March 2, 2000. In light of the cost associated with the more sensitive total PCBs analysis, the Regional Water Board approves a schedule of alternating sample sites to meet the monthly sampling requirement, while reducing the number of samples. The Permittees will monitor five stations for PCBs monthly. The monitoring stations located in Basins A, C, E, and G and the main channel will be sampled for PCBs one month; the following month the monitoring stations located in Basins B, D, F and H and the main channel will be sampled for PCBs.</p> <p>The laboratory methods previously being employed were not sufficiently sensitive to quantify PCBs in the water column. Therefore, the uncertainty surrounding the current concentration of PCBs in Marina del Rey Harbor does not warrant any further reduction in monitoring, at this time. Once sufficient sampling has been completed to fully characterize PCBs in Marina del Rey Harbor and establish any trends; the Permittees may submit a written request to the Executive Officer of the Regional Water Board to reduce the frequency of total PCBs sampling in the receiving water, based on an evaluation of the monitoring data.</p>
<p>Sections 2.2.3, pp. 13-15 and Appendix I</p>	<p>MdRH Toxic Pollutants TMDL</p>	<p>Instead of annual sediment chemistry and toxicity monitoring as required by the TMDL, the CIMP proposes to conduct sediment analysis in conjunction with the Triad Sampling for SQO analysis twice during the five year Permit cycle. Once in 2016 as part of the Stressor Identification Study and in 2018 as part of the Bight Program. While the full SQO analysis will be performed every 5 years, yearly sediment chemistry and toxicity monitoring data is necessary to determine effectiveness of implementation actions and to potentially modify implementation planning. Annual monitoring of sediment chemistry and toxicity will provide the Regional Water Board and implementing agencies information on which to base actions and gauge TMDL effectiveness. Therefore, the revised CIMP will include annual sediment chemistry and toxicity monitoring in each of the eight basins and the main channel. The sediment samples will be analyzed for copper, lead, zinc, chlordanes, total PCBs, total DDTs, p,p'-DDE, total organic carbon, grain size, and toxicity.</p>
<p>Sections 2.2.3, and Table 2-3, pp. 14-16 and Appendix I</p>	<p>MdRH Toxic Pollutants TMDL</p>	<p>The CIMP proposes to leave the selection of sampling locations for the sediment triad assessment up to the Bight program. Per the Toxics TMDL, the CIMP needs to specify the locations for the sediment triad assessment and the methodology for combining results from sampling locations to determine sediment conditions; therefore, revise the CIMP accordingly. The sampling design shall be in compliance with the Water</p>

CIMP Reference	MRP Element/ Reference (Attachment E)	Summary of Comments and Necessary Revisions
		Quality Control Plan for Enclosed Bay and Estuaries - Part 1, Sediment Monitoring Section VII.E.
Section 2.3, pg. 17; Table 4-2, pg. 27; and Appendices C and I	MdrH Toxic Pollutants TMDL	The CIMP proposes to limit the number of Toxics TMDL wet weather monitored storm events to seven per year, one storm per month. The proposed annual limit of seven storm events and no more than one storm per month is insufficient to ensure enough sediment is collected for data analyses. Sampling devices similar to those designed for the storm-borne sediment study should be employed for sampling of storm-borne sediment. During the pilot study, insufficient sample was collected to run replicates for QA/QC. Until such issues are resolved, including the establishment of baseline data for storm-borne sediment and the volume needed to run all required analyses and QA/QC, all storms should be sampled. The storm-borne sediment will be analyzed for copper, lead, zinc, chlordane, total PCBs, total DDTs, p,p'-DDE, and total organic carbon. If sufficient storm-borne sediment samples are collected during a wet weather season to meet the data needs discussed above, a reduction in required sampling of storm-borne sediment can be requested for approval by the Executive Officer.
Sections 2.2.3 and 4.2, pp. 14-15 and 26-27	MdrH Toxic Pollutants TMDL	The revised CIMP needs to clearly state if the CIMP addresses the revised monitoring requirements of the reconsidered MdrH Toxic Pollutants TMDL as amended by Resolution No. R14-004, which became effective on October 16, 2015.
Section 6.0, pg. 36	Ballona Creek Trash TMDL	The Marina del Rey subwatershed is subject to the Ballona Creek Trash TMDL. In the revised CIMP the Cities of Los Angeles and Culver City and the County of Los Angeles need to state how they are complying with the Ballona Creek Trash TMDL (i.e. full capture, partial capture).
Section 6.2, pg. 36	SMB Debris TMDL	Permittees are required to submit a Plastic Pellets Monitoring and Reporting Plan (PMRP), or demonstrate that a plan is not required, along with a Spill Response Plan. PMRPs have been submitted and approved for the County of Los Angeles and the LACFCD. The City of Los Angeles states that there are no plastic pellet facilities in the Mdr watershed. Neither a PMRP nor a PMRP exemption request has been submitted by Culver City; therefore, the City of Culver City needs to submit a PMRP and a spill response plan.
Appendix A, Part A.3, pg. A-2	SMB TMDL for DDTs and PCBs	Correct the erroneous statement, "The Toxics TMDL supersedes the EPA established Santa Monica Bay DDTs and PCBs TMDL." This statement is not accurate the MdrH Toxics TMDL does not supersede the SMB DDTs and PCBs TMDL. However, since the MdrH Toxics TMDL has lower WLAs than the SMB DDTs and PCBs TMDL, if Permittees are in compliance with the MdrH Toxics TMDL then Permittees will be in

CIMP Reference	MRP Element/ Reference (Attachment E)	Summary of Comments and Necessary Revisions
		compliance with the SMB DDTs and PCBs TMDL. The MdrH Toxics TMDL does not cover the Venice Canals/Ballona Lagoon. In those areas the SMB DDTs and PCBs TMDL is applicable including the specified Waste Load Allocations.
Appendix A Part A.3.1, pg. A-3	SMB Debris TMDL	Appendix G does not include the TMRPs/PMRPs for the County, City of Culver City and LACFCO. Include these monitoring plans as another appendix to the CIMP, so that all monitoring program elements can be found within a single document.
Appendix A Part A.3.2, pg. A-3	MdrH Bacteria TMDL	Include the State Board Office of Administrative Law approval date of November 7, 2013, and the USEPA approval date of July 2, 2014 , for the revised Marina del Rey Harbor Bacteria TMDL.
Appendix C		Tables C-7 and C-8 are missing the constituent p,p'-DDE from the list of parameters to be monitored.
	MdrH Toxic Pollutants TMDL	Regional Water Board staff has reviewed the Oxford Retention Basin Multiuse Enhancement Project, Project Monitoring Plan (PMP) submitted to meet the requirements of the Prop 84 grant. It is understood that this plan has not been finalized; however, it is likely that additional monitoring beyond that proposed in the draft plan will be necessary to meet the TMDL requirement of monitoring discharge of sediment from Oxford Basin to Basin E of the harbor. In addition, the TMDL states that any effectiveness monitoring developed as part of the Proposition 84 grant shall continue beyond the term of the Proposition 84 grant. The details of the required monitoring from Oxford Basin into Basin E of MdrH must be included in the revised CIMP; including but not limited to monitoring of TSS at various tidal heights near the tidal gate in Basin E and the Prop 84 PMP.

Los Angeles Regional Water Quality Control Board

TO: Los Angeles County MS4 Permittees and City of Long Beach

FROM: Samuel Unger, P.E.
Executive Officer 

DATE: August 7, 2015

SUBJECT: CLARIFICATION REGARDING FOLLOW-UP MONITORING REQUIREMENTS IN RESPONSE TO OBSERVED TOXICITY IN RECEIVING WATERS PURSUANT TO THE MONITORING & REPORTING PROGRAM (ATTACHMENT E) OF THE LOS ANGELES COUNTY MS4 PERMIT (ORDER NO. R4-2012-0175)

The Los Angeles County MS4 Permit, Attachment E requires chronic aquatic toxicity monitoring in receiving waters during both wet and dry weather conditions to determine whether designated beneficial uses are fully supported. Further, Attachment E requires additional monitoring at MS4 outfalls where aquatic toxicity is present above a certain effect level in downstream receiving waters to determine whether MS4 discharges are causing or contributing to the aquatic toxicity. In this situation, outfall monitoring must either entail monitoring for specific pollutants identified in a toxicity identification evaluation (TIE) in the downstream receiving water, or for aquatic toxicity itself, where the specific pollutants could not be identified through the TIE conducted on the downstream receiving water.

In its comments on the draft Integrated Monitoring Programs (IMPs) and Coordinated Integrated Monitoring Programs (CIMPs) submitted per the Los Angeles County MS4 Permit, the Los Angeles Water Board provided clarification and recommendations to Permittees regarding aquatic toxicity monitoring, particularly pertaining to the requirement to conduct chronic toxicity tests in dry and wet weather conditions and requirements for conducting a TIE and outfall monitoring. Subsequently, on December 9, 2014, Board staff met with several Permittees regarding its comments. During this meeting it was apparent that further clarification was necessary regarding requirements for follow-up monitoring when aquatic toxicity is present in downstream receiving waters. This memo provides additional clarification and applies to all IMPs and CIMPs developed pursuant to Part VI.B of the Los Angeles County MS4 Permit and Part VII.B of the City of Long Beach MS4 Permit.

It is acknowledged, however, that this memo may not address every situation that is encountered. We encourage the Permittees to approach toxicity testing and the TIE and TRE procedures thoughtfully and thoroughly in the interest of identifying and eliminating any source(s) of toxicity in MS4 discharges as expeditiously as possible and to consult with Los Angeles Water Board staff if you need assistance or clarification.

If you have any questions regarding these clarifications, please contact Renee Purdy at Renee.Purdy@waterboards.ca.gov or Shirley Birosik at Shirley.Birosik@waterboards.ca.gov.

The memo addresses requirements for follow-up monitoring in four **receiving water** scenarios where toxicity is present:

- Toxicity is present, but not above the TIE trigger as defined in Attachment E, Part XII.I.1¹;
- Toxicity is present above the TIE trigger and the TIE identifies the constituent(s) causing the toxicity;
- Toxicity is present above the TIE trigger during wet weather, but the TIE is inconclusive; and
- Toxicity is present above the TIE trigger during dry weather, but the TIE is inconclusive.

The memo also addresses the several scenarios once **outfall** toxicity testing has been triggered. Attached to the memo are several simplified flowcharts to aid in understanding the process.

An inconclusive TIE is defined as a TIE for which the cause of toxicity cannot be attributed to a constituent or class of constituents (e.g., metals, insecticides, etc.) that can be targeted for monitoring even after conducting appropriate Phase I and Phase II TIE treatments. This outcome may result from either non-persistent toxicity such that the TIE treatments cannot be successfully completed on the toxic sample, or from the inability with available Phase I and Phase II TIE

An **inconclusive TIE** is one for which the cause of toxicity cannot be identified after the conclusion of TIE Phases I and II.

If a TIE is inconclusive:

- ✓ Check QA/QC
- ✓ Evaluate sensitive species selection
- ✓ Initiate future TIEs earlier (to address non-persistent toxicity)
- ✓ Conduct all phases of TIE

treatments to isolate the constituent or class of constituents causing the toxicity. If the TIE is inconclusive due to non-persistent toxicity, the Los Angeles Water Board expects that Permittees will proactively identify and implement actions during the subsequent upstream and/or outfall toxicity sampling event to improve the likelihood of a conclusive TIE, while also following the steps below. Where a TIE is inconclusive due to the inability to determine the constituent(s) causing the toxicity, Permittees should evaluate further steps to improve the TIE outcome including sensitive species selection, QA/QC, and the need to conduct Phases I through III of a TIE, among others.

¹ Permit references correspond to the Los Angeles County MS4 Permit (Order No. R4-2012-0175)

TRIGGERS FOR ADDING TOXICITY MONITORING TO UPSTREAM RECEIVING WATER MONITORING / OUTFALL MONITORING:

1. If toxicity is present as determined based on a fail of the Test of Significant Toxicity (TST) t-test as specified in the Permit (Attachment E, Part XII.G.4) during wet or dry weather, but not above the TIE trigger (which is defined as when the survival or sublethal endpoint demonstrates a ≥ 50 Percent Effect at the IWC as per Attachment E, Part XII.I.1), then:
 - a. Toxicity monitoring will be added to the next existing upstream receiving water site(s) during the same condition (wet or dry weather) for which toxicity was determined to be present. Monitoring for toxicity at the next existing upstream receiving water site(s) will occur during the next monitoring event that is at least 30 days following the original toxicity sample collection. Toxicity monitoring at individual receiving water sites will continue until (1) the deactivation criterion (i.e., two consecutive samples that pass the pass/fail TST t-test during the same condition) is met at the receiving water site or (2) a TIE is triggered and conclusively identifies the constituent or class of constituents causing toxicity, in which case the process outlined in Bullet 2 below is followed. OR
 - b. If there is no upstream receiving water monitoring site already established as part of the monitoring program, continue receiving water toxicity monitoring at the original site until (1) the deactivation criterion (i.e., two consecutive samples that pass the pass/fail TST t-test during the same condition) is met at the original receiving water site or (2) a TIE is triggered at the original site and conclusively identifies the constituent or class of constituents causing toxicity, in which case the process outlined in Bullet 2 below is followed. Also, conduct an evaluation similar to the TRE outlined in Attachment E, Part XII.J to identify, to the extent practicable, the source(s) of toxicity with the goal of identifying cause(s) of toxicity, paying particular attention to sources of potential constituent(s) causing toxicity (e.g., fipronil).
 - i. If there is no upstream receiving water monitoring site already established as part of the monitoring program and toxicity is present during dry weather, actions taken as part of the non-stormwater program (e.g., source identification and elimination or treatment of unauthorized non-stormwater discharges that are a source of pollutants) should be utilized to support the TRE.
 - ii. If there is no upstream receiving water monitoring site already established as part of the monitoring program and toxicity is present during wet weather, consider the following actions to support TRE: evaluating land uses and potential associated source(s) in the drainage area, evaluation of other permitted discharges, and evaluation of inspection activities. AND
 - c. If there is no upstream receiving monitoring site already established as part of the monitoring program and more than one occurrence of a fail of the TST t-test occurs at the original receiving water site within 3 years, then evaluate opportunities to conduct toxicity monitoring at upstream receiving water sites (either newly established or sites utilized by other monitoring programs), including tributaries.

2. If toxicity is present at a level exceeding the TIE trigger and the TIE identifies the constituent or class of constituents causing toxicity, then:
 - a. Do not add toxicity monitoring to upstream sites. AND
 - a. During the same condition, add the identified constituent or constituents within the class of constituents² to the monitoring site where toxicity was identified, the upstream receiving water site(s), and upstream outfall site(s) starting with the next monitoring event that is at least 45 days following the toxicity sample collection. Monitoring for the identified constituent(s) will continue until the deactivation criterion (i.e., two consecutive samples do not exceed Receiving Water Limitations (RWLs), Water Quality Based Effluent Limitations (WQBELs), or other appropriate threshold or guideline if there is no numeric RWL or WQBEL, for the identified constituents during the same condition) is met at the individual site. Where constituent(s) are identified in the outfall(s) above the RWL(s), WQBEL(s), or other appropriate threshold or guideline commence TRE at each corresponding outfall location per Attachment E, Part XII.J.
3. If toxicity is present at a level exceeding the TIE trigger during wet weather and the TIE is inconclusive, then:
 - a. Add toxicity monitoring to the next existing upstream receiving water site(s) during the next monitoring event that is at least 45 days following the original toxicity sample collection. Toxicity monitoring at individual receiving water site(s) will continue until (1) the deactivation criterion (i.e., two consecutive samples that pass the pass/fail TST t-test during the same condition) is met at the receiving water site or (2) a TIE is triggered and conclusively identifies the constituent or class of constituents causing toxicity, in which case the process outlined in Bullet 2 above is followed. AND
 - b. The second inconclusive TIE in 3 years during wet weather would trigger outfall toxicity testing at upstream outfall sites (i.e., (1) outfall sites located between the receiving water site and the nearest upstream receiving water site located on the same waterbody and (2) outfall sites located on tributaries that have a confluence with the waterbody where the confluence is located between the receiving water site and the nearest upstream receiving water site located on the same waterbody) following the process outlined below in “Steps Related Outfall Toxicity Testing” during the next monitoring event that is at least 45 days following the original toxicity sample collection. OR
 - c. As an alternative to the outfall monitoring described in Bullet 3.b., Permittees may propose an alternative approach any time after the first inconclusive TIE, which could include utilizing upstream receiving water sites (either newly established or sites utilized by other monitoring programs), including tributaries, additional outfall sites, and/or different outfall sites. However, the outfall monitoring approach described in Bullet 3.b. must be followed until Regional Water Board EO approval of the alternative approach.

² Using appropriate detection limits

4. If toxicity is present at a level exceeding the TIE trigger during dry weather and the TIE is inconclusive, then:
 - a. Add toxicity monitoring to the next existing upstream receiving water site(s) during the next monitoring event that is at least 45 days following the original toxicity sample collection. Toxicity monitoring at individual receiving water site(s) will continue until (1) the deactivation criterion (i.e., two consecutive samples that pass the pass/fail TST t-test during the same condition) is met at the receiving water site or (2) a TIE is triggered and conclusively identifies the constituent or class of constituents causing toxicity, in which case the process outlined in Bullet 2 above is followed during the next monitoring event that is at least 45 days following the original toxicity sample collection. AND
 - b. Add toxicity testing to upstream outfall sites (i.e., (1) outfall sites located between the receiving water site and the nearest upstream receiving water site located on the same waterbody and (2) outfall sites located on tributaries that have a confluence with the waterbody where the confluence is located between the receiving water site and the nearest upstream receiving water site located on the same waterbody) following the process outlined below in “Steps Related Outfall Toxicity Testing” during the next monitoring event that is at least 45 days following the original toxicity sample collection. OR
 - c. As an alternative to the outfall monitoring described in Bullet 4.b above, Permittees may propose an alternative approach any time after the first inconclusive TIE, which could include utilizing upstream receiving water sites (either newly established or sites utilized by other monitoring programs), including tributaries, additional outfall sites, and/or different outfall sites. However, the outfall monitoring approach described in Bullet 4.b above must be followed until Regional Water Board EO approval of the alternative approach.

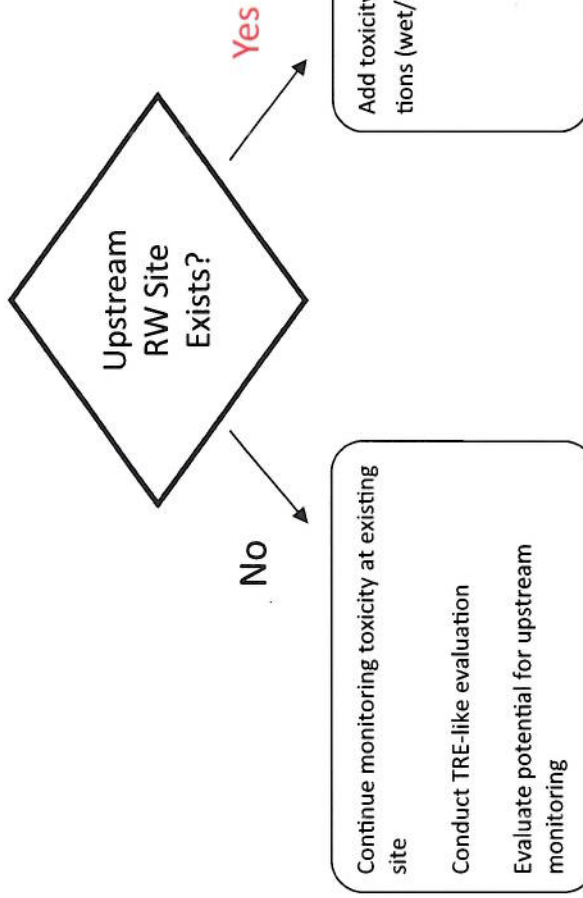
STEPS RELATED TO OUTFALL TOXICITY TESTING ONCE TRIGGERED:

1. If toxicity is not present as determined based on pass of the TST t-test as specified in the Permit, then continue toxicity testing during the same condition
2. (i.e. wet or dry weather) until (1) meeting the deactivation criterion (i.e., two consecutive samples that pass the pass/fail TST t-test during the same condition), or (2) a TIE conducted at the downstream receiving water site conclusively identifies the constituent or class of constituents causing toxicity, or (3) the discharge is eliminated.
3. If toxicity is present as determined based on fail of the TST t-test as specified in the Permit, but not above the TIE trigger, then continue toxicity testing during the same condition until (1) meeting the deactivation criterion (i.e., two consecutive samples that pass the pass/fail TST t-test during the same condition), or (2) a TIE conducted at a downstream receiving water site conclusively identifies the constituent or class of constituents causing toxicity, or (3) the discharge is eliminated. Concurrently conduct an evaluation similar to the TRE in Attachment E, Part XII.J to identify, to the extent practicable, the source(s) of toxicity with the goal of addressing cause(s) of toxicity, paying particular attention to sources of potential constituent(s) causing toxicity (e.g., fipronil).

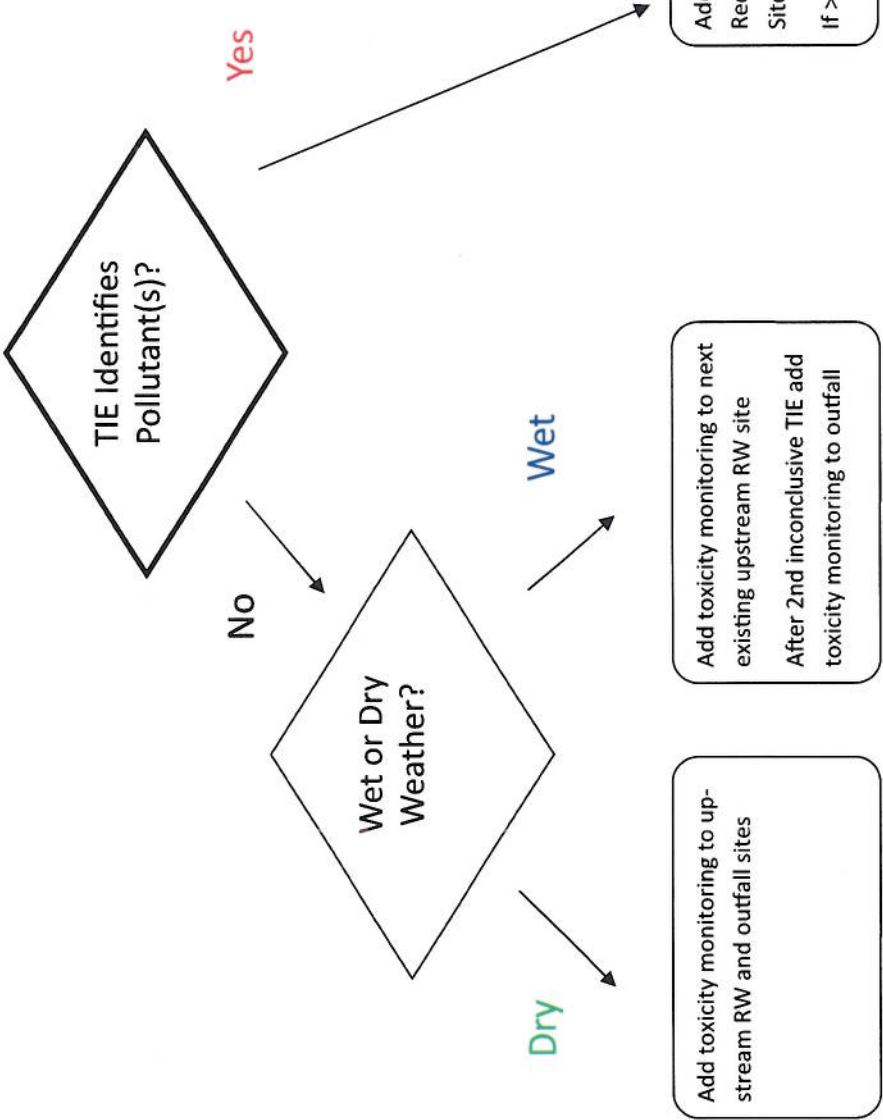
- a. If toxicity is present in the non-stormwater discharge, actions taken as part of the non-stormwater program (e.g., source identification and elimination or treatment of unauthorized non-stormwater discharges that are a source of pollutants) should be utilized to support the TRE.
 - b. If toxicity is present in the stormwater discharge, consider the following actions to support the TRE: evaluating land uses and potential associated source(s) in the drainage area, evaluation of other permitted discharges, and evaluation of inspection activities.
4. If toxicity is present at a level exceeding the TIE trigger and the TIE identifies the constituent or class of constituents causing toxicity, then:
- a. Discontinue toxicity testing at the outfall. AND
 - b. Add the identified constituent or constituents within the identified class of constituents³ during the same condition starting with the next monitoring event that is at least 45 days following the toxicity sample collection and monitor for those constituents at the outfall until meeting the deactivation criterion for those constituents (i.e., two consecutive samples do not exceed RWLs, WQBELs, or other appropriate threshold or guideline if there is no numeric RWL or WQBEL, for identified constituents), while simultaneously performing a TRE for the constituent(s) causing toxicity per Attachment E, Part XII.J.
5. If toxicity is present at a level exceeding the TIE trigger and the TIE is inconclusive, then continue toxicity testing during the same condition until (1) meeting the deactivation criterion (i.e., two consecutive samples that pass the pass/fail TST t-test during the same condition), or (2) a TIE identifies the constituent or class of constituents causing toxicity (proceed with following the process outlined in Bullet 3, above), or (3) eliminate the discharge. Concurrently conduct an evaluation similar to the TRE in Attachment E, Part XII.J to identify, to the extent practicable, the source(s) of toxicity with the goal of addressing cause(s) of toxicity, paying particular attention to identifying sources of potential constituent(s) causing toxicity that may not have been evaluated in the TIE (e.g., fipronil).
- a. If the TIE is inconclusive in the non-stormwater discharge, actions taken as part of the non-stormwater program (e.g., source identification and elimination or treatment of unauthorized non-stormwater discharges that are a source of pollutants) should be utilized to support the TRE.
 - b. If the TIE is inconclusive in the stormwater discharge, consider the following actions to support the TRE: evaluating land uses and potential associated source(s) in the drainage area, evaluation of other permitted discharges, and evaluation of inspection activities.

³ Using appropriate detection limits

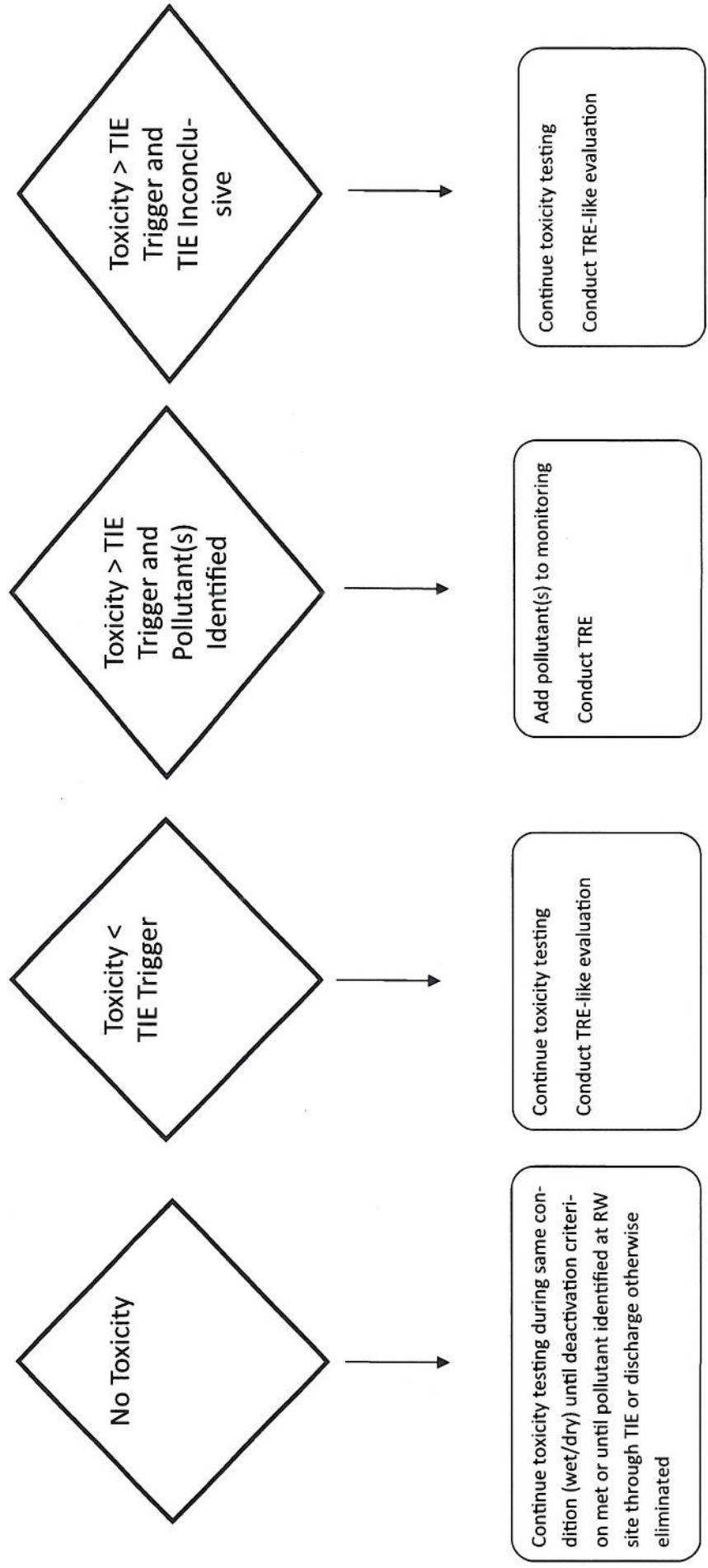
**Receiving Water Toxicity
Present but Does NOT Exceed
TIE Trigger**



Receiving Water Toxicity Present and Exceeds TIE Trigger



Outfall Toxicity Testing
Once Triggered



Marina del Rey Watershed

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