September 16, 2014

Via electronic mail

Mr. Sam Unger
Executive Officer and Members of the Board
California Regional Water Quality Control Board, Los Angeles Region
320 West 4th Street, Suite 200, Los Angeles, CA 90013
Email: losangeles@waterboards.ca.gov

Re: Comments on Enhanced Watershed Management Program Work Plans and Monitoring Plans Pursuant to Requirements under the Los Angeles County Municipal Separate Storm Sewer System Permit, NPDES Permit No. CAS004001, Order No. R4-2012-0175

Dear Mr. Unger:

On behalf of the Natural Resources Defense Council ("NRDC"), Los Angeles Waterkeeper ("Waterkeeper"), and Heal the Bay (collectively, "Environmental Groups"), we are writing with regard to the Enhanced Watershed Management Program ("EWMP") Work Plans and Monitoring Plans associated with the EWMPs submitted by permittees pursuant to the Los Angeles County Municipal Separate Storm Sewer System ("MS4") Permit, NPDES Permit No. CAS004001, Order No. R4-2012-0175 ("2012 Permit"). This comment letter addresses, in general, EWMPs for the following watershed groups: The Upper Los Angeles River;[1] Upper Santa Clara River;[2] Rio Hondo/San Gabriel River;[3] Upper San Gabriel River;[4] Malibu Creek;[5] Marina Del Rey;[6] North Santa Monica Bay

[1] Permittees include Alhambra, Burbank, Calabasas, Glendale, Hidden Hills, La Canada Flintridge, Los Angeles, Montebello, Monterey Park, Pasadena, Rosemead, San Gabriel, San Marino, South Pasadena, Temple City, Los Angeles County, and the Los Angeles County Flood Control District.
[2] Permittees include Los Angeles County, the Los Angeles County Flood Control District, and Santa Clarita.
[3] Permittees include Arcadia, Azusa, Bradbury, Duarte, Monrovia, Los Angeles County, the Los Angeles County Flood Control District, and Sierra Madre.
[4] Permittees include Baldwin Park, Covina, Glendora, Industry, La Puente, Los Angeles County, and the Los Angeles County Flood Control District.
[5] Permittees include Agoura Hills, Calabasas, Hidden Hills, Westlake Village, Los Angeles County, and the Los Angeles County Flood Control District.
[6] Permittees include Culver City, Los Angeles, Los Angeles County, and the Los Angeles County Flood Control District.

Coastal Watersheds;[7] Santa Monica Bay Watershed, Jurisdiction Groups 2 and 3;[8] Beach Cities Watershed;[9] Ballona Creek;[10] and Dominguez Channel.[11]

We appreciate the opportunity to submit these comments to the Los Angeles Regional Water Quality Control Board ("Regional Board"). Given the large volume of material submitted by permittees, Environmental Groups were unable to review in detail all EWMP Work Plans and Monitoring Plans. The lack of particular comments on a specific EWMP Work Plan or Monitoring Plan, however, should not be taken as indication of our agreement with the sufficiency or legality of these documents. In many cases, we provide specific examples in order to illustrate a broader issue identified with the submitted EWMP Work Plans. As a result, we ask the Regional Board to review all the submitted Work Plans in light of the comments provided in this letter and our earlier comments to the Regional Board on permittees' watershed management programs ("WMPs"),[12] because in several regards the EWMP Work Plans raise similar concerns to those identified in the permittees' Draft WMP plans.

I. Introduction

As an initial matter, Environmental Groups' comments on the EWMP Work Plans and Monitoring Plans submitted by the permittees should not be construed as approval or acceptance of the 2012 Permit terms. We continue to maintain that several provisions of the Permit fail to meet the requirements of the federal Clean Water Act and California Porter Cologne Act, and are otherwise inconsistent with both state and federal law. Environmental Groups filed a petition[13] with the State Water Resources Control Board

[7] Permittees include Malibu, Los Angeles County, and the Los Angeles County Flood Control District.
[8] Permittees include City of Los Angeles, Los Angeles County, Los Angeles County Flood Control District, El Segundo and Santa Monica.
[9] Permittees include Hermosa Beach, Manhattan Beach, Redondo Beach, Torrance, and the Los Angeles County Flood Control District.
[10] Permittees include Beverly Hills, Culver City, Inglewood, Los Angeles, Santa Monica, West Hollywood, Los Angeles County, and the Los Angeles County Flood Control District.
[11] Permittees include El Segundo, Hawthorne, Inglewood, Los Angeles, Los Angeles County, and the Los Angeles County Flood Control District.
[12] *See*, Environmental Groups' letter to Regional Board re: Comments on Watershed Management Plans and Monitoring Plans Pursuant to Requirements Under the Los Angeles County Municipal Separate Storm Sewer System Permit, August 18, 2014.
[13] For a full explanation of how the permit violates the law, see Memorandum of Points and Authorities in Support of Petition of NRDC, Los Angeles Waterkeeper and Heal the Bay for Review of Action by the California Regional Water Quality Control Board, Los Angeles Region, in Adopting the Los Angeles County Municipal Separate Stormwater

("State Board"), which demonstrates the ways in which the 2012 Permit violates these legal requirements. The State Board has yet to make a determination on our petition.

Under the 2012 Permit, permittees electing to participate in an EWMP are required to submit a Draft EWMP plan by June 2015. (2012 Permit, at VI.C.4.c.iv.) The EWMP Work Plans submitted by permittees in June 2014 present an opportunity for permittees to demonstrate their commitment to developing management programs under an EWMP to meet required receiving water limitations and TMDL provisions. While it appears from the submitted Work Plans that many permittees have made significant progress towards developing their draft EWMPs, the Work Plans are in many instances unclear as to what analysis or programs will ultimately be incorporated into final EWMPs to be submitted to the Regional Board in 2015. In fact, some of the Work Plans clearly indicate that the permittees' management programs, as currently envisioned, will not ensure that discharges from the permittees' MS4 systems do not cause or contribute to exceedances of Receiving Water Limitations, including applicable water quality standards, or TMDL limitations in the 2012 Permit, and otherwise fail to meet Permit requirements.

The lack of clarity or Work Plan deficiencies present a significant concern: under the 2012 Permit permittees that elect to collaborate on an *enhanced* WMP or EWMP are granted an additional 12 months to develop and submit a draft plan for review by the Regional Board. (2012 Permit, at VI.C.4.c.iv.) This Board approved delay in progress toward compliance with water quality-based effluent limits ("WQBELs") and Permit receiving water limitations ("RWLs") cannot pass lightly—the draft plans submitted by EWMP groups in June 2015 must fully and clearly demonstrate a path to compliance and cleaner waters for the region. To this extent, any identified deficiencies with the EWMP Work Plans must be addressed prior to submission of the draft EWMPs in 2015.[14]

II. Summary of Comments

The submitted EWMP Work Plans and Monitoring Plans in numerous aspects fail to meet the requirements of the 2012 Permit or are otherwise inadequate to control pollution and protect the region's waters. Because the deficiencies in these Work Plans will likely follow to the management programs due in June 2015, the Regional Board should take

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National Pollutant Discharge Elimination System (NPDES) Permit; Order No. R4-2012-0175; NPDES Permit No. CAS004001 (Dec, 10, 2012) ("Environmental Groups' Petition"), SWRCB/OCC File No. A-2236(m).

[14] As stated above, however, this letter and the attached exhibits are not intended to exhaust the reasons why the submitted EWMP Work Plans and Monitoring Plans fail to meet permit requirements and will not ensure compliance with receiving water limitations. Our letter highlights issues and failures in a number of EWMP Work Plans and Monitoring Plans and should be utilized by the Regional Board in its review of all EWMP Work Plans and Monitoring Plans submitted by permittees.

this important opportunity to intervene early and mandate revisions of the Work Plans and Monitoring Plans in order to ensure that permittees are on the path towards compliance with permit requirements. Common issues with the submitted EWMP Work Plans and Monitoring Plans include:

1. Permittees fail to adequately identify the location or extent of MS4s within EWMP areas;

2. Some permittees' water body-pollutant classifications and prioritization appear insufficient or contrary to permit requirements;

3. Permittees inappropriately rely on future policy changes to demonstrate compliance instead of employing necessary measures to achieve compliance with permit requirements;

4. Permittees fail to discuss or propose a process for demonstrating that retention of the 85th percentile storm event is infeasible in areas where retention is not proposed, or fail to emphasize identification and implementation of multi-benefit solutions;

5. The proposed Reasonable Assurance Analyses ("RAAs") are insufficient because they fail to adequately focus on local, representative data for model calibration or are unjustifiably narrow;

6. Proposals for the RAAs fail to include dry weather modeling;

7. Implementation schedules for monitoring programs are insufficient;

8. Monitoring programs lack adequate maps;

9. Monitoring programs contain unrepresentative and inadequate receiving and outfall monitoring sites;

10. Required receiving and outfall monitoring sites are lacking;

11. Frequency of monitoring fails to meet Permit or TMDL requirements;

12. Non-stormwater monitoring is insufficient;

13. Rotating monitoring locations are inappropriate;

14. Aquatic toxicity monitoring methodology fails to meet requirements; and

15. Monitoring programs improperly rely on adaptive management.

III. Common Deficiencies Identified in EWMP Work Plans

The 2012 Permit allows for Permittees to "develop Watershed Management Programs to implement the requirements of [the Permit] on a watershed scale through customized strategies, control measures, and BMPs." (2012 Permit, at VI.C.1.a.) The Permit allows additional time for program development where permittees elect to develop an *enhanced* Watershed Management Program ("EWMP") that:

> comprehensively evaluates opportunities, within the participating Permittees' collective jurisdictional area in a Watershed Management Area, for collaboration among Permittees and other partners on multi-benefit regional projects that, where ever feasible, retain (i) all non-storm water runoff and (ii) all storm water runoff from the 85th percentile, 24-hour storm event for the drainage areas tributary to the projects, while also achieving other benefits including flood control and water supply, among others.

(2012 Permit, at VI.C.1.g.) Permittees who elect to collaborate on an EWMP must submit "the work plan for development of the EWMP no later than 18 months after the effective date of this Order…." (*Id.* at VI.C.4.c.iv.) In areas of the permittees' jurisdictions where retention of the 85th percentile, 24-hour storm event is not technically feasible, EWMPs must include other watershed control measures to "ensure that MS4 discharges achieve compliance with all interim and final WQBELs set forth in Part VI.E. . . . and [] ensure that MS4 discharges do not cause or contribute to exceedances of receiving water limitations in Part V.A." (*Id*. at VI.C.1.g.v.)

EWMP Work Plans should provide the public and the Regional Board assurances that permittees are on the right track with EWMP development and should thus show significant progress on EWMP requirements including, but not limited to, permittee action to:

- identify water quality priorities through conducting a water quality characterization of the watershed, classifying water body-pollutant combinations, conducting a pollutant source assessment, and prioritizing pollution issues to be addressed *(Id.* at VI.C.5.a.);
- select watershed controls, including identifying specific "strategies, control measures, and BMPs to implement through their individual storm water management programs, and collectively on a watershed scale" (*Id*. at VI.C.5.b.);
- establish compliance schedules and interim milestones for achieving pollutant reduction goals (*Id.* at VI.C.5.c.);
- except where permittees demonstrate technical infeasibility, include "multi-benefit regional projects to ensure that MS4 discharges achieve compliance with all final WQBELs set forth in Part VI.E. and do not cause or contribute to exceedances of receiving water limitations in Part V.A. by retaining through

infiltration or capture and reuse the storm water volume from the 85th percentile, 24-hour storm for the drainage areas tributary to the multi-benefit regional projects" (*Id.* at VI.C.1.g.iv); and

- conduct a Reasonable Assurance Analysis for each water body-pollutant combination addressed by the EWMP, in areas where retention of the 85th percentile, 24-hour storm is technically infeasible. (*Id.* at VI.C.5.b.iv(5), VI.C.1.g.v.)

In numerous regards, and as detailed further below, the permittees appear to be proceeding with plans that will not meet these or other legal requirements.

A. Permittees Fail to Adequately Identify the location or extent of MS4s in EWMP areas

In order to conduct source assessment, permittees must identify the locations of their MS4s, "including, at minimum, all MS4 outfalls and major structural controls for storm water and non-storm water that discharge to receiving waters." (2012 Permit, at Section VI.C.5.a.iii(b).) This Permit requirement is fundamental and without this information neither permittees, the Regional Board, nor the public can adequately evaluate the EWMP Work Plans.

The North Santa Monica Bay EWMP Work Plan does not adequately identify the MS4 within the watershed management area but instead states that the watershed is largely undeveloped and "not served by a traditional storm drain system."[15] The Permit's MS4 definition, however, does not differentiate between "traditional" and "non-traditional" storm drain systems. Under the Permit, an MS4 is "[a] conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains)" which is owned or operated by a public entity, such as a city, a county or a flood control district, with "jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes" and is "designed or used for collecting or conveying storm water." (2012 Permit, at A-12.) All municipal streets, catch basins, curbs, gutters, storm drains, ditches and conveyances that are "designed or used for collecting or conveying storm water" are therefore part of the permittees' MS4 and thus subject to the Permit provisions. Under this definition of an MS4 system, the permittee members of the North Santa Monica Bay EWMP Group have an extensive MS4 in the North Santa Monica Bay watershed area.

In fact, Los Angeles Waterkeeper has identified several outfalls, catch basins, and storm water conveyances in the North Santa Monica Bay watershed and has provided this information to the permittees. Rather than acknowledging the full extent of the MS4 system within the North Santa Monica Bay watershed management area, permittees

[15] North Santa Monica Bay EWMP Work Plan, at 4.

provide land use data and only 3 small maps depicting portions of the North Santa Monica Bay MS4 as part of their monitoring plan submission. The land use data and the limited MS4 maps do not satisfy the Permit's requirement to identify the locations of permittees' MS4s. (2012 Permit, at Section VI.C.5.a.iii.(b).) A complete map of the North Santa Monica Bay MS4, including all outfalls and catch basins, must be submitted to the Regional Board in order to adequately evaluate the BMPs proposed by the permittees and the selection of outfall monitoring locations in the CIMP.

B. Some permittees' water body-pollutant classifications and prioritization appear insufficient or contrary to permit requirements

Permittees are required to prioritize pollutants into three categories: (1) TMDL pollutants (highest priority), (2) 303(d) listed but no applicable TMDL (high priority), (3) insufficient data to determine impairment, but exceeds RWLs (medium priority). Category (1) must also include non-TMDL pollutants that have similar fate and transport mechanisms as TMDL pollutants. (2012 Permit, at VI.C.2.a.i.) In several EWMP Work Plans, permittees fail to adequately follow this prioritization scheme.

1) Permittees fail to properly classify water body-pollutant combinations

For example, the North Santa Monica Bay Coastal Watersheds EWMP Work Plan fails to include sediment/TSS as a Category (1) pollutant for Malibu Creek, although an applicable TMDL exists for this waterbody/pollutant combination,[16] and fails to include sediment toxicity as a Category (2) pollutant despite its 303(d) status.[17] Similarly, the Upper Santa Clara River EWMP Work Plan fails to include priority pollutants for Los Angeles River TMDLs despite the City of Santa Clarita's inclusion as a responsible party under those TMDLs.[18]

The draft North Santa Monica Bay EWMP Work Plan additionally asserts that there is no evidence supporting a linkage between MS4 discharges and exceedances of selenium and sulfates (both Category (2) high priority pollutants) and therefore states these pollutants will not be modeled as part of the North Santa Monica Bay RAA, but will be assessed qualitatively.[19] However, the permittees give no explanation or evidence to support their claim that the MS4 does not contribute to the water quality impairments associated with

[16] *See* US EPA Benthic TMDL, Malibu Creek & Lagoon TMDL for Sedimentation and Nutrients to Address Benthic Community Impairments (July 2, 2013), accessed at http://www.epa.gov/region9/water/tmdl/malibu/2013-07-02-malibu-creek-lagoon-tmdl-signed.pdf.
[17] North Santa Monica Bay EWMP Work Plan, at 18.
[18] Upper Santa Clara River EWMP Work Plan, at 3-4.
[19] North Santa Monica Bay EWMP Work Plan, at 18.

these pollutants. Sources, studies and data supporting the permittees' proposal not to model selenium and sulfates as part of the EWMP must be provided in the Work Plan.

The Upper Los Angeles River EWMP Work Plan's approach to identifying non-TMDL pollutants for either inclusion in Category (3) or to be considered for categorization with TMDL pollutants due to having similar fate and transport mechanisms is unclear.[20] The Work Plan amalgamates sampling to show minimum and maximum pollutant levels in samples within broad timeframes, so that, for example, between October 2002 and July 2013 Total Aluminum for the Los Angeles River Reach 1 reached a maximum concentration of 23,900 μg/L, well above the Basin Plan limitation of 1 mg/L (1,000 μg/L).[21] Yet the EWMP Work Plan does not include aluminum as a Category (3) target, or identify it as having a similar fate and transport mechanism to other metals identified as Category (1) pollutants.

Finally, related to the requirements regarding prioritization, permittees in the Upper Santa Clara River Watershed Management Group suggest an improper process for changing the priority status of pollutants. Specifically, the Upper Santa Clara River EWMP Work Plan states that "as the monitoring progresses, source assessments occur, and BMP implementation begins, constituents may change subcategories. Constituents for which exceedances decrease over time will be removed from the priority list and moved to the monitoring priority categories; or, dropped from the priority list."[22] However, a decrease in exceedances is not an acceptable standard for re-categorizing pollutants. Under the 2012 Permit, a pollutant's classification is determined by a TMDL, its 303(d) status, or the presence of RWL exceedances. (2012 Permit, at VI.C.2.a.i.)

2) Permittees improperly base analysis on limited data

The Upper Los Angeles River and other Work Plans' characterizations appear to be based on data from monitoring locations that may span large ranges overall (e.g., 2002-2013), but which may only contain data for 1 to 2 years.[23] Some EWMP Work Plans, such as the Dominguez Channel EWMP Work Plan, additionally focus on the last five years of data in conducting water body-pollutant classifications, but do not justify the use of a smaller data set beyond stating, for example, "it is the most relevant."[24] These issues must be addressed in Draft EWMPs submitted in 2015.

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[20] *See, e.g.*, Upper Los Angeles River EWMP Work Plan, at Appendix 2.A.
[21] *Id.* at Appendix 2.A-102.
[22] Upper Santa Clara EWMP Work Plan, at 4-9.
[23] *See, e.g.*, Upper Los Angeles River EWMP Work Plan, at Appendix 2.A; Dominguez Channel EWMP Work Plan, at 12.
[24] Dominguez Channel EWMP Work Plan, at 12.

In addition, permittees disregard available data that should be used in the EWMP analysis. For example, the North Santa Monica Bay EWMP Work Plan states with respect to discharge quality that "no data were available for this assessment;"[25] however, data demonstrating water chemistry of the MS4 discharges in the North Santa Monica Bay watershed management area has been provided (in some cases by Los Angeles Waterkeeper) to the City of Malibu and Los Angeles County permittees. The City of Malibu has also conducted stormwater discharge monitoring and should use this data in this assessment. Furthermore the North Santa Monica Bay EWMP Work Plan lacks a discussion of potential sources or volume of stormwater and non-stormwater discharges from the MS4. The EWMP must address this deficiency. And while the North Santa Monica Bay EWMP Work Plan lists general sources of data in characterizing receiving water quality (e.g. Bight '08, Heal the Bay, CSMP), it names no specific studies or monitoring reports and does not provide the data that was used for the analysis. Details of the data sets used in the analysis for receiving water quality need to be included in the Draft EWMP in order to adequately assess the receiving water quality analysis.

In general, EWMPs must include all available data of both stormwater and non-stormwater discharges from the MS4 systems, including data obtained from municipalities, special studies, research groups, and public interest organizations pursuant to the 2012 Permit Section VI.C.5.a.iii.(1)(a)(viii), or be revised to incorporate this data where it has been omitted.

3) *Permittees omit required pollutant categories or present pollutant sub-categories based on unclear or improper classification schemes*

For some permittees, it is unclear how pollutant sub-categories were classified and prioritized. In the Upper San Gabriel River EWMP Work Plan, some past-due final TMDL deadlines are identified as a lower category than final deadlines that fall within the Permit term.[26] Non-compliance with TMDLs past final deadlines should be the highest priority in EWMP Work Plans, and a discussion of the relevant sub-categories should be included in the Upper San Gabriel River EWMP Work Plan. It is similarly unclear how Category (3) pollutants were identified for the Malibu Creek Watershed EWMP Work Plan, which contains confusing text to describe their prioritization process, and lacks information and explanation as to specific data, including time frame and range of pollutants, analyzed.[27] We note as well that the Malibu Creek Watershed EWMP Work Plan appears to place excessive emphasis on natural sources as the cause of impairments.[28]

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[25] North Santa Monica Bay EWMP Work Plan, at 15.
[26] Upper San Gabriel River EWMP Work Plan, at 11.
[27] Malibu Creek EWMP Work Plan, at 12.
[28] *See, e.g.*, Malibu Creek Watershed EWMP Work Plan, at 1, 12. While natural sources of certain compounds from the Monterey/Modelo geologic formation may exist, all

Additionally, some permittees have simply omitted required categories of pollutants altogether. For example, although the Marina Del Rey EWMP permittees provide some explanation for their decision, they do not appear to provide adequate justification for their failure to identify or include any Category (2) or (3) pollutants.[29] It is unclear in the Work Plan whether or not Category (3) pollutants may be present in the watershed management area. Further, when Marina del Rey's monitoring program is implemented, additional data will become available that may identify new Category (2) or (3) water body-pollutants. The EWMP should discuss the process for potentially adding additional water body-pollutant classifications as new data is collected, and should discuss this additional data source as a means to strengthen management plans through the adaptive management process. These permittee groups must ensure that all priority pollutants are properly identified and will be addressed in the draft EWMPs due in June 2015.[30]

4) Permittees establish improper timelines for compliance in certain categories

Finally, several permittees subject to TMDLs set incorrect timelines for implementation and compliance. For example, the Ballona Creek EWMP Work Plan appears to omit a wet weather compliance milestone for the Ballona Estuary and a dry weather milestone for Reaches 1 and 2, Sepulveda Canyon, Centinela Creek, and Benedict Canyon,[31] which is inconsistent with the Ballona Creek Bacteria TMDL.[32] In the Rio Hondo/San Gabriel River EWMP Work Plan, the list of applicable TMDLs and effective or approval dates fails to include interim and final compliance deadlines.[33] The Upper Los Angeles River EWMP Work Plan identifies pollutants subject to the Los Angeles River Metals total maximum daily load ("TMDL")[34] as Category (1) pollutants subject to "Interim"

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potential pollutant sources should be equally scrutinized and a comprehensive and scientifically based source assessment analysis performed.

[29] *See* Marina Del Rey EWMP Work Plan, at 29. Similarly, though without explanation, the Upper San Gabriel River EWMP Work Plan fails to list Category (2) and (3) pollutants altogether,[29] and the North Santa Monica Bay and Rio Hondo/San Gabriel River EWMP Work Plans fail to include any Category (3) pollutants. (*See* North Santa Monica Bay EWMP Work Plan, at 19; Rio Hondo/San Gabriel River CIMP, at 88.)

[30] In addition to omitting priority pollutants, at least one Work Plan omits entire waterbodies within the watershed. The Ballona Creek EWMP Work Plan does not include Stone Canyon, Franklin Canyon, Benedict Canyon, and Fern Dell in Table 1-1. (Ballona Creek EWMP Work Plan, at 1-3.)

[31] *Id.* at 1-10.

[32] Total Maximum Daily Load for Bacterial Indicator Density in Ballon Creek, Ballona Estuary, and Sepulveda Channel. Accessed at http://63.199.216.6/larwqcb_new/bpa/docs/R12-008/R12-008_RB_BPA.pdf

[33] Rio Hondo/San Gabriel River EWMP Work Plan, Table 1-2, at 2.

[34] Regional Board Resolutions No. 2007-014, 2010-003.

deadlines within the permit term.[35] This TMDL sets numeric WLAs based on the California Toxics Rule ("CTR") (40 C.F.R. 131.36(d)(10)) criteria. Compliance schedules for CTR-based limits are authorized through the Inland Surface Water Plan ("ISWP"), which only authorizes compliance schedules for a maximum of 10 years from the time CTR criteria were first promulgated, and states that no discharger can be given a compliance schedule to meet CTR criteria after May 18, 2010.[36] Interim limits for TMDL compliance with CTR-based limits are not authorized, and these pollutants should be categorized as past final TMDL deadlines.

C. Permittees inappropriately rely on future policy changes to demonstrate compliance instead of employing necessary measures to achieve compliance with permit requirements

For example, the Upper Santa Clara River EWMP Work Plan inappropriately relies on modeling that will include "an evaluation of [the] potential impact of incorporating a high flow suspension" and "a potential water effects ratio."[37] However, the Los Angeles Region Basin Plan does not provide a high-flow suspension provision for the Santa Clara River or for waterbodies without engineered channels.[38] Permittees may not rely on suggested future policy changes in lieu of demonstrating that their own proposed measures will ensure compliance with permit requirements.

D. Permittees fail to discuss or propose a process for demonstrating that retention of the 85th percentile storm event is infeasible in areas where retention is not proposed, or fail to emphasize identification and implementation of multi-benefit solutions

By submitting a Notice of Intent to the Regional Board to complete an *enhanced* WMP and receive an additional year of planning time over WMPs, the permittees have committed to developing multi-benefit regional projects wherever feasible. To meet this goal the EWMP:

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[35] Upper Los Angeles River EWMP Work Plan, at 2-7, 2-9.
[36] State Board Resolution No. 2000-15, Policy for the Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California, at 19; *see also* October 23, 2006 EPA Letter re: California SIP, Compliance Schedule Provisions; State Board Memo dated September 15, 2006 Re: CTR Compliance Schedules; State Board Resolution No. 2008-0025 at 4; Final Staff Report, State Board Resolution No. 2008-0025 at 10; Final Response to Written Comments, State Board Resolution No. 2008-0025 at 6, 9, 10, 18-19, 26.
[37] Upper Santa Clara River EWMP Work Plan, at 5-16.
[38] Amendment to the Water Quality Control Plan – Los Angeles Region to Suspend the Recreational Beneficial Uses in Engineered Channels during Unsafe Wet Weather Conditions, July 10, 2003.

> comprehensively evaluates opportunities, within the participating Permittees' collective jurisdictional area in a Watershed Management Area, for collaboration among Permittees and other partners on multi-benefit **regional projects that, where ever feasible**, retain (i) all non-storm water runoff and (ii) all storm water runoff from the 85th percentile, 24-hour storm event for the drainage areas tributary to the projects, while also achieving other benefits including flood control and water supply, among others.

(2012 Permit, at VI.C.1.g., emphasis added). However, most of the EWMP Work Plans do not sufficiently, if at all, describe a process for identifying "infeasibility" for regional multi-benefit retention projects or retention of the 85th percentile storm in general. Thus, the EWMP Work Plans do not appear well positioned to lead to EWMPs that meet 2012 Permit requirements.

For instance, the Upper Santa Clara River EWMP Work Plan[39] describes how, after initial potential BMP site identification and characterization, "the top 5 sites" identified as potential regional projects will be further investigated.[40] This process appears arbitrary, as the five specific projects have yet to be identified or evaluated to see whether they will be sufficient for compliance with Permit requirements, and no justification is provided as to why additional projects would not be investigated or would be deemed infeasible. Additionally, the Upper Santa Clara River EWMP Work Plan states that distributed BMPs may achieve the retention requirement.[41] However, the permit requires multi-benefit *regional* projects wherever feasible and the EWMPs must therefore prioritize and evaluate the technical feasibility of regional projects throughout the watershed.(*Id.*, at VI.C.1.g.) The Rio Hondo/San Gabriel River EWMP Work Plan states that regional BMPs are "not necessarily" able to capture the 85th percentile, 24-hour storm event, without providing any support to justify finding it is infeasible to do so.[42] Other EWMP Work Plans, such as for the Dominguez Channel, state that existing

[39] The Upper Santa Clara River EWMP Work Plan has additional deficiencies that must be addressed in the EWMP submitted in July 2015. For example, permittees state that enhanced street sweeping and irrigation control as well as break pad replacement may be included in modeling. *See* Upper Santa Clara River EWMP Work Plan, at 5-19. If so, permittees must also include justification for any assumed pollution reduction from these activities. The Upper Santa Clara River EWMP Work Plan also suggests that MCMs may be eliminated and that details on distributed and institutional BMPs will not be provided. While MCMs may be modified with justification, the 2012 Permit does not contemplate elimination. Further, BMP specificity is required by the permit for *all* proposed BMPs. Upper Santa Clara River EWMP Work Plan, at 5-7.
[40] *Id*. EWMP Work Plan, at 5-9.
[41] *Id.* at 5-1.
[42] Rio Hondo/San Gabriel River EWMP Work Plan, at 36.

regional projects that do not meet EWMP criteria (85th percentile, 24 hour storm) will be evaluated in order to quantify load reduction, without any discussion of whether modifications to those BMPs will be considered to achieve EWMP and Permit compliance.[43]

1) *Permittees must emphasize identification and implementation of multi-benefit projects*

The 2012 Permit additionally places substantial emphasis for EWMPs on identifying, developing, and implementing green infrastructure or other multi-benefit projects that will provide additional benefits or resources for the Los Angeles region. Permittees developing EWMPs are explicitly tasked with "comprehensively evaluat[ing] opportunities, within the participating Permittees' collective jurisdictional area . . . for collaboration among Permittees and other partners on multi-benefit regional projects. . . ." (*Id*. at VI.C.1.g.) Further, under the Permit's Minimum Control Measure ("MCM") requirements, development and redevelopment projects may "utilize alternative compliance measures to replenish ground water at an offsite location," provided that, among other parameters, "that ground water can be used for beneficial purposes at the offsite location." (2012 Permit, at VI.D.7.c.iii .) Similarly, "Permittees may propose, in their Watershed Management Program or EWMP, regional projects to replenish regional ground water supplies at offsite locations, provided the groundwater supply has a designated beneficial use in the Basin Plan." (*Id*. at VI.D.7.c.iii(3).)

These requirements represent a strong overall trend for stormwater management toward use of multi-benefit, often green infrastructure-based, projects and practices, which may include, at both site and regional scales, use of rainwater harvesting or stormwater infiltration, green roofs, rain gardens, street trees, and green streets or increased green space. By retaining stormwater runoff, these practices or types of projects not only reduce all categories of pollutants in stormwater, but can reduce flooding, increase local water supplies (particularly critical for Southern California given conditions of drought and over-allocation of existing water sources), reduce energy use, improve air quality, increase property values and beautify cityscapes.[44] The implementation of multi-benefit projects can often help to leverage funding dollars.

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[43] Dominguez Channel EWMP Work Plan, at 33.

[44] *See*, American Planning Association (2010) Rebuilding America: APA National Infrastructure Investment Task Force Report, accessed at http://www.planning.org/policy/infrastructure/pdf/finalreport.pdf; California Department of Water Resources (2010) California Water Plan Update 2009, Volume 2: Resource Management Strategies, Chapter 19, Urban Runoff Management, accessed at http://www.waterplan.water.ca.gov/cwpu2009/index.cfm; U.S. EPA (2007) Reducing Stormwater Costs through Low Impact Development (LID) Strategies and Practices, at iii, accessed at

While some of the EWMP Work Plans appear poised to place significant focus on use of green infrastructure practices to meet their mandate to retain the 85th percentile storm where feasible, and the types of BMPs identified have the potential to result in multiple benefits for their corresponding communities, there is often little emphasis placed on use of multi-benefit strategies in the EWMP Work Plans, of specific additional benefits that could be achieved (e.g., increased water supply), or of partnerships outside of the MS4 community that could be brokered to increase utility of land area used for stormwater management.[45] For instance, EWMP Work Plans provide lists of existing BMPs, yet green streets projects appear not to be included on these lists, though they may play a key role in meeting the 2012 Permit's requirements.[46] Permittees should evaluate existing green street development and implementation. In addition, the Rio Hondo/San Gabriel EWMP Work Plan includes a "Potential Regional BMP Projects Ranking Criteria" chart which, without discussion of how "multi-benefit" is to be defined, pairs multi-use opportunities with "connectivity" as only 1 of 13 potential equally scored parameters for project selection.[47] The Upper San Gabriel River and Santa Monica Bay Jurisdictional Groups 2 & 3 EWMP Work Plans similarly mention multi-use benefits and groundwater recharge/infiltration capacity as potential "project evaluation criteria," but without discussion as to what the additional benefits might include or potential other agencies/organizations with whom the group could partner.[48] Further, several EWMP Work Plans, including for the Upper San Gabriel River, Marina Del Rey, and Dominguez Channel, place strong preference (if not sole consideration) on use of public parcels over potential use of private land, potentially foregoing opportunities to install multi-benefit

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http://www.epa.gov/owow/NPS/lid/costs07/documents/reducingstormwatercosts.pdf; NRDC (2011) Rooftop to Rivers II http://www.nrdc.org/water/pollution/rooftopsii/files/rooftopstoriversII.pdf; NRDC, The Green Edge; NRDC and The Pacific Institute (June 2014) Stormwater Capture Potential in Urban and Suburban California, accessed at http://www.nrdc.org/water/files/ca-water-supply-solutions-stormwater-IB.pdf; and, NRDC and Emmett Center on Climate Change and the Environment at UCLA School of Law (2012) Looking Up: How Green Roofs and Cool Roofs Can Reduce Energy Use, Address Climate Change, and Protect Water Resources in Southern California, accessed at http://www.nrdc.org/water/pollution/files/GreenRoofsReport.pdf.

[45] *See, e.g.*, Upper Reach 2 WMP, at 56, 105 (discussing use of utility transmission and freeway corridors).

[46] Upper Santa Clara River EWMP Work Plan, at 5-5.

[47] Rio Hondo/San Gabriel River EWMP Work Plan, at 54.

[48] Upper San Gabriel River EWMP Work Plan, at 20; Santa Monica Bay J2 & 3 Work Plan, at 23. The City of Los Angeles's Proposition O criteria and Los Angeles County's draft Clean Water Clean Beaches Measure criteria should be referenced during this process, and any criteria should prioritize multi-benefit project solutions.

BMPs on large portions of their watershed.[49] We strongly urge the Permittees, in proceeding with their respective EWMPs, to focus on the potential to achieve multiple environmental and community benefits, on both public and private properties, through implementation of their EWMPs.

E. The proposed Reasonable Assurance Analyses are insufficient because they fail to adequately focus on local, representative data for model calibration or are unjustifiably narrow

In some EWMP Work Plans, it is unclear what data will be used to calibrate and validate the RAA models. For example, in the Marina del Rey Work Plan, due to an apparent lack of currently available data for receiving water characterization, only TMDL or 303(d) List constituent data are identified as available. Although the Marina del Rey Work Plan states that spatial and temporal aspects will be evaluated using representative monitoring stations and associated drainage areas and events data, this data will only be available after monitoring plan implementation. The Work Plan must be clear regarding when and how often recalibration and validation will occur, and how many years of monitoring data will be used for recalibration or validation.

Similarly in the Marina del Rey EWMP Work Plan, it is unclear if land use based pollutant loading proposed in the Draft Work Plan properly follows the RAA guidance document. The Work Plan states that "pollutant loading in [Watershed Management Modeling Systems] WMMS is correlated with the [Hydrological Response Units] HRUs defined within the model."[50] More detail on how WMMS's HRUs reflect local event mean concentrations ("EMCs") is needed to ensure that modeled pollutant loading is representative of actual loading occurring in the Marina del Rey watershed management area, and the permittees must explain what EMC pollutant loading information they will use to characterize HRUs.

Furthermore the RAA scheme proposed in some of the EWMP Work Plans is unjustifiably narrow in scope. For example, the spatial domain of the RAA proposed in the North Santa Monica Bay EWMP Work Plan excludes drainage areas already addressed by regional EWMP projects, neglecting the fact that most of these existing regional BMPs do not retain the 85th percentile 24-hour storm.[51] The 2012 Permit clearly requires "in drainage areas within the EWMP area where retention of the 85th percentile, 24-hour storm event is not feasible, the EWMP shall include a Reasonable Assurance Analysis to demonstrate that applicable water quality based effluent limitations and receiving water limitation shall be achieved and that these existing regional BMPs do not

[49] *Id.*; Marina Del Rey EWMP Work Plan, at 56; Dominguez Channel EWMP Work Plan, at 31.
[50] Marina del Rey EWMP Work Plan, at 63.
[51] North Santa Monica Bay EWMP Work Plan, at 46.

meet the 85th percentile requirement of the permit." (2012 Permit, at VI.C.1.g.) Therefore either permittees need to conduct a RAA over all drainage areas where the 85th percentile 24-hour storm retention is not feasible, or permittees need to thoroughly demonstrate that the 85th percentile 24-hour storm will be retained by the existing or redesigned and upgraded BMPs in specified drainage areas.

In addition, the EWMP Work Plan for Santa Monica Bay Watershed, Jurisdiction Groups 2 and 3 provides no justification for the proposal to limit quantitative assessment in the RAA to lead and fecal coliform only,[52] omitting total coliform and enterococcus. Further, the Work Plan does not discuss whether the analysis of data over a greater timeframe than indicated, e.g., 10 years, would affect the assessment. The EWMP Work Plan should provide additional detail and justification for the proposed limited quantitative analysis. Furthermore, the EWMP should provide a process for expanding the number of constituents modeled, depending on new monitoring data.

The Beach Cities Work Plan discusses existing regional and distributed BMPs in the EWMP Group area.[53] The Work Plan should discuss how appropriate baseline water quality conditions will be identified, given that these projects are already in place and may be affecting pollutant loads. In addition, the Work Plan should discuss the operations and maintenance associated with installed BMPs, including but not limited to frequency of maintenance and monitoring data.

Finally, some Work Plans propose to rely on outdated precipitation data for their analyses. For example, the Marina del Rey Draft Work Plan proposes to use rainfall data from 1987-2006 without justifying the use of outdated data in its WMMS model.[54] The county has numerous rain gauges that record precipitation events from the last 8 years, so presumably much more recent data is available. Explanation for why more recent rainfall data is not being used in RAA modeling is needed to justify meteorological data selection.

F. RAA proposals fail to include dry weather modeling

Several of the EWMP Work Plans reviewed by Environmental Groups assert that dry weather modeling will not be included in the RAA without sufficient justification. For example, the Santa Monica Bay J2 & 3 EWMP Work Plan asserts that compliance with the Santa Monica Bay Bacteria Beaches TMDL cannot be modeled and instead proposes a "semi-quantitative" methodology for the dry weather RAA.[55] Yet, the document does

[52] J2 & 3 EWMP Work Plan, at 32.
[53] Beach Cities EWMP Work Plan, at 11.
[54] Marina del Rey EWMP Work Plan, at 63.
[55] J2 & 3, EWMP Work Plan, at 34.

provide an adequate alternate modeling strategy.[56] Thus, the EWMP Work Plan should be revised to include quantitative RAA modeling for dry weather. Further, the J2 & 3 EWMP Work Plan outlines a methodology for demonstrating reasonable assurance for dry weather, including an affirmative identification that a dry weather diversion or disinfection system is in place or that there are no non-stormwater MS4 outfall discharges, that assumes that the BMPs are working effectively but provides no data or details to support this assumption.[57]

The North Santa Monica Bay EWMP Work Plan also proposes a "semi-quantitative" methodology for dry weather RAA, and provides only a limited justification for the decision not to use modeling. The proposed "semi-quantitative" methodology consists of a series of permittee-designed questions and if one of these questions is answered affirmatively, "then 'reasonable assurance' is considered to be demonstrated."[58] While some of these questions are at least directed at demonstrating with reasonable assurance that dry weather discharges are not occurring, in general, the questions are vague, based on unsupported assumptions, incorrectly define permittee responsibilities or Permit requirements, or otherwise flatly fail to demonstrate reasonable assurance that Permit requirements will be met. The Regional Board should reject their use as demonstrating Permit compliance.

IV. Common Deficiencies Identified in Monitoring Plans

Environmental Groups have identified several areas in which permittees have failed to meet or include required Permit elements in their Monitoring Plans (identified as Coordinated Integrated Monitoring Plans ("CIMPs")), particularly with respect to: including required watershed or EWMP maps; failing to include adequate representative receiving water and/or outfall monitoring locations; failing to include a sufficient number of outfall monitoring sites per sub-watershed; improper use of rotating monitoring locations; and, improper toxicity methodology. In addition, the proposed implementation timelines for several permittee Monitoring Plans are unjustifiably long. Environmental Groups provide an overview of issues identified with permittee monitoring plans here,

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[56] *Id.*, at 34.
[57] *Id.*, at 34
[58] North Santa Monica Bay EWMP Work Plan, at 62. The Draft Work Plan for Santa Monica Bay J2 & 3 similarly proposes a "semi-quantitative" methodology, without justification, for its dry weather RAA, asserting that compliance with the Santa Monica Bay Bacteria Beaches TMDL cannot be modeled. See J2 & 3 EWMP Work Plan, at 34. Further, a proposed methodology for demonstrating reasonable assurance, including an affirmative identification that a dry weather diversion or disinfection system is in place or that there are no non-stormwater MS4 outfall discharges, assumes without providing support that the BMPs are working and in-effect 100 percent of the time.

with examples, and discuss many of these issues in greater detail in the attached exhibits detailing concerns with each individual CIMP submission.[59]

A. **Implementation schedules for monitoring programs are insufficient**

Implementation of CIMPs is required to commence within 90 days after approval of the CIMP by the Executive Officer of the Regional Water Board. (2012 Permit, Attachment E, at IV.C.6.) Several of the CIMPs state that "implementation of new monitoring programs and modifications to existing monitoring programs will begin July 2015, or 90 days after the approval of the CIMP, whichever is later."[60] To the extent that delaying until July 2015 would exceed 90 days after approval by the Executive Officer, the proposed program implementation schedule is inappropriate.

Several watershed management groups also propose phased implementation of 2012 Permit monitoring requirements, which may span multiple years after initial monitoring plan implementation. For example, the Ballona Creek Watershed Management Group proposes a three-phased approach, stating it will take upwards of 30 months after CIMP adoption for all monitoring locations to be active due to monitoring infrastructure installation needs and permitting constraints.[61] The Upper Los Angeles River Watershed Management Group proposes a four-phased approach, stating it will take more than 42 months after CIMP adoption for all their monitoring locations to become active.[62] These monitoring implementation schedules are excessively long and violate Permit requirements.[63] Further, it is unclear why some EWMP groups propose a more expedited schedule, although still excessively long, than other EWMP groups.

Many EWMP components (e.g. designation of category (3) pollutants, aquatic toxicity monitoring, and BMP siting) are dependent upon data collected from Monitoring Plans. The belated implementation of Monitoring Plans will leave permittees, the Regional Board and the public with incomplete watershed monitoring data, which in turn will

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[59] See Exhibits A-K.
[60] *See,* Malibu Creek CIMP, at ix; Marina del Rey CIMP, at 48; Beach Cities CIMP, at 61; Upper Santa Clara River CIMP, at 46.
[61] Ballona Creek EWMP CIMP, at 51.
[62] Upper Los Angeles River EWMP CIMP, at 58.
[63] Other CIMPs similarly suggest a phased approach and excessively long timeframes to implement monitoring. *See, e.g.,* Upper Santa Clara CIMP, at 19; *see also* Ballona Creek CIMP, at 50-54. Additionally, the Rio Hondo/San Gabriel River CIMP indicates that stormwater monitoring will depend on the feasibility of sample collection within 90 days of CIMP approval. (Rio Hondo/San Gabriel River CIMP, at 63) The Santa Monica Bay J2 & 3 CIMP proposes to have 100 percent of its outfalls prioritized by December 28, 2017 taking five years from the Permit adoption date to complete their prioritization. (Santa Monica Bay J2 & 3 CIMP, at 53).

inhibit watershed management planning. While Environmental Groups understand that installation of equipment and implementation of monitoring programs may be an involved process, the proposed timelines are inappropriate. In many of the CIMPs, it is additionally unclear if interim monitoring (e.g., grab samples) will take place at locations where phased monitoring approaches are proposed. It is imperative that these monitoring programs are implemented in the shortest timeframe possible; excessively long implementation of monitoring requirements significantly halts EWMP progress and further delays permittees' attainment of receiving water limitations.

Further, some of the CIMPs propose to inappropriately revise adaptive implementation measures using a methodology that is neither contemplated nor allowed under the 2012 Permit. For example, the Upper San Gabriel River CIMP acknowledges that much of the proposed sampling "may result in data that will require changes to ensure monitoring meets the requirements and intent of the MRP and supports EWMP implementation."[64] However, some of the expected changes to the sampling program are immediately problematic, including a plan to discontinue monitoring of "MRP Table E-2" and Category (3) pollutants if no exceedances are observed after one or two consecutive years of monitoring, respectively, as well as a plan to discontinue monitoring certain constituents not identified as water quality priorities.

B. **The monitoring programs lack adequate maps**

Pursuant to the Permit, permittees must include a map delineating permittees' MS4 and the receiving water and storm water outfall monitoring locations. (2012 Permit, Attachment E, at VI and VII). Several CIMPs fail to provide an adequate map or maps. The North Santa Monica Bay watershed area includes portions of six HUC-12 watersheds, (broken into 18 further sub-watersheds) and 28 freshwater coastal streams, all tributaries to the Santa Monica Bay. The CIMP depicts the entire watershed management area in a single map, which contains land use, HUC-12 watersheds, creeks, and monitoring locations.[65] However, the scale of the map renders it difficult to comprehend the distribution of proposed monitoring locations with respect to drainage areas and land uses; the map is in general hard to read and the watershed management area should be broken into two or more sections to be displayed in more detailed and clearer maps. Furthermore, the map does not fully depict the MS4 as required by the 2012 Permit. (2012 Permit, Attachment E, at VII.A.). Detailed maps including outfalls, catch basins, culverts, and all components of the MS4 within the watershed area must be included in all permittee CIMPs, as required.

The Upper Santa Clara River CIMP similarly fails to include any maps delineating MS4 catchment drainages and outfalls, subwatershed boundaries, or land uses within the

[64] Upper San Gabriel River CIMP, at 56.
[65] North Santa Monica Bay CIMP, Figures 1 and 2, at 4-5.

EWMP Group area, all of which are 2012 Permit requirements.[66] The CIMP also states that six outfalls were selected as representative of the seven HUC-12 watersheds that have major outfalls with the EWMP area.[67] The justification for this choice is unclear and appears to violate Permit provisions which require one outfall to be monitored per HUC-12 watershed. But because no map is provided, it is impossible to thoroughly evaluate this approach. Further, the Upper Santa Clara River CIMP identifies several unmonitored tributaries within the EWMP area, which, without a land use map, prevents adequate evaluation.[68] Additionally, the Ballona Creek CIMP fails to include required maps, and the Rio Hondo/San Gabriel River CIMP's map depicting stormwater outfall monitoring sites fails to include outfall drainage areas.[69] For each outfall monitoring site, the corresponding drainage area should be delineated. A table describing the land use of each outfall monitoring site's drainage area should also be included.

C. Proposed receiving/outfall monitoring locations are unrepresentative and inadequate

The 2012 Permit requires permittees to conduct stormwater outfall based monitoring at selected outfalls which are representative of the land uses within a permittee's jurisdiction. (2012 Permit, Attachment E, at VIII.A.1.b.). The intent of outfall-based monitoring is, among other purposes, to identify land uses that are contributing to pollutant loading when receiving water limits are exceeded. However, many of the submitted CIMPs do not include adequate outfall locations representative of a permittee's land uses. For example, the Upper Los Angeles River CIMP proposes to monitor 11 outfall sites.[70] But the CIMP does not provide adequate justification that the 11 outfall monitoring sites are sufficiently representative to cover the variety of land types and uses present within the jurisdictions of the 18 participating permittees and 481-square mile Watershed Management Area.[71] Furthermore, the Upper Los Angeles Watershed Management Group fails to include land use maps necessary for the public to evaluate if outfall monitoring locations are actually representative of land use.

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[66] The Upper Santa Clara River CIMP additionally states that all land uses were calculated using 2005 data, despite the fact that new development and changes to land uses have almost certainly occurred since that time. (*See*, Upper Santa Clara River CIMP, at 11.) Permittees must provide updated information or justification for why more recent data is not available or was not used.
[67] Upper Santa Clara River CIMP", at 11.
[68] *Id.* at 14.
[69] Rio Hondo/San Gabriel River CIMP, Figure ES-2, at xiii.
[70] Upper Los Angeles River CIMP, at 29.
[71] *Id*. at 1.

Similarly, the Marina del Rey CIMP proposes 18 receiving water monitoring locations to satisfy both the 2012 MS4 Permit Requirements and three TMDL requirements.[72] However, only one of the 18 receiving water locations, known as MdRH-MC, will be monitored for all parameters as identified in Table 2-3.[73] (17 will only be monitored for TMDL constituents). This single, comprehensive monitoring station is located in the Harbor's Back Basin. Marina del Rey is spatially delineated into Front and Back Basins; water quality constituent concentrations vary depending on where samples are collected. Although we understand that the majority of stormwater flows enter Marina del Rey Harbor through the Back Basin, it does not justify eliminating comprehensive monitoring in the Front Basin. Other possible monitoring location options exist; for example, the Venice Canals and Ballona Lagoon have several beneficial use designations in the Los Angeles Region Basin Plan, and could serve as proposed receiving water monitoring locations in the Marina del Rey CIMP. If the Marina del Rey Group moves forward with its proposal of only one comprehensive monitoring location, the CIMP should justify its sole location designation and also explain how this monitoring location will characterize the Front Basin.

With respect to outfall monitoring, the Marina del Rey CIMP again proposes only one monitoring location. The CIMP states that this single monitoring location is "the most representative of [w]atershed impacts to the Harbor."[74] Yet the single site does not necessarily capture all relevant land use types for the watershed, or allow for differentiation of runoff from different land use types sufficient to allow for necessary watershed management planning. For example, this single location is not representative of commercial/industrial land-use loading to Basin G, or of highly urbanized residential properties loading to the Venice Canals and Ballona Lagoon. The CIMP should include the reasoning for not including outfall monitoring locations at other major outfalls or up-reach manholes in Basin G or Venice Canals/Ballona Lagoon, as in general the program would benefit from additional outfall monitoring.

A further example of inadequate representative monitoring can be found in the Santa Monica Bay J2 & 3 CIMP, which does not include a receiving water location to capture the heavy industrial land-uses of El Segundo.[75] This is a clear deficiency in the CIMP, and will hinder efforts to analyze pollutant loading in the watershed.

D. **Required receiving and outfall monitoring sites are lacking**

The Permit requires monitoring to be performed at least one major outfall per subwatershed (HUC-12) drainage area within each permittee's jurisdiction. (2012 Permit,

[72] Marina del Rey CIMP, at 14.
[73] *Id* at 16.
[74] *Id* at 26.
[75] Santa Monica Bay J2 & 3 CIMP, at 17.

Attachment E, at VIII.A.1.a.) However, many of the Monitoring Plans flatly lack the required number of outfall monitoring sites. For example, under the Upper San Gabriel River CIMP, the default procedure was modified to include only one outfall *per jurisdiction*, and therefore not every HUC-12 includes an outfall monitoring site.[76]

Additionally, as discussed above, the Upper Los Angeles River Watershed Group consists of 18 permittees, yet its CIMP proposes only 11 total stormwater outfall monitoring sites. While the CIMP approach is to incorporate monitoring at one outfall per major sub-watershed,[77] it is deficient for failing to include one outfall monitoring site per sub-watershed *per jurisdiction or permittee*.

The CIMP for the North Santa Monica Bay watershed management area includes only three additional receiving water monitoring locations beyond existing shoreline monitoring conducted under AB 411 and beach advisory monitoring are proposed in the draft CIMP to cover six HUC-12 watersheds, including its 28 freshwater coastal streams and all 27 miles of coastline in the North Santa Monica Bay watershed management area.[78] This does not cover the full watershed management area. At a minimum, the six HUC-12 coastal subwatersheds should be assigned a receiving water monitoring location to be monitored for all priority pollutants.

The stormwater outfall monitoring proposed by the North Santa Monica Bay CIMP is similarly deficient because it identifies only two stormwater outfall monitoring locations in the entire EWMP area. At a minimum, six outfall monitoring locations are needed in the North Santa Monica Bay EWMP area, one per HUC-12 drainage area as required by the 2012 permit. (2012 Permit, Attachment E, at VIII.A.1.a.).[79] Further, the CIMP does not identify any stormwater storm water outfall monitoring location in the Topanga Canyon Creek watershed. Given that this watershed is the only watershed impaired for lead and is a HUC-12 watershed, stormwater and non stormwater monitoring should be conducted in the Topanga Canyon Creek watershed to identify sources and determine the quality of discharges affecting water quality impairments.

E. Frequency of monitoring fails to meet Permit or TMDL requirements

Several monitoring plans explicitly fail to comply with TMDL requirements with regard to monitoring frequency. For example, although the San Gabriel River Metals TMDL specifies four wet weather events annually for effectiveness monitoring, the Upper San Gabriel River wet-weather monitoring plan states that, for the purported purpose of being consistent with the monitoring frequency of other constituents and stormwater outfall

[76] Upper San Gabriel River CIMP, at 30.
[77] Upper Los Angeles River CIMP, at 23.
[78] North Santa Monica Bay CIMP, at 22.
[79] *Id*, at E-21 (2012 Permit, Attachment E, at VIII.A.1.a.).

monitoring, effectiveness monitoring within the EWMP area will be conducted for only three wet-weather events annually. This is not the correct standard for determining the frequency of monitoring; permittees must comply with TMDL monitoring requirements.

F. Non-stormwater monitoring is insufficient

Several CIMPs propose inadequate non-storm water monitoring. For example, the Draft CIMP for J2&J3 watershed management area states that "as non-stormwater flow at the beach outfalls are non-existent, and have been reviewed for over 10 years, outfall screening of these outfalls will not be conducted."[80] But the CIMP fails to demonstrate whether the diversions reducing flow for these outfalls have been operational for 100% of the time during dry-weather periods, or whether any operations or maintenance issues may have arisen during dry-weather periods resulting in discharge. Absent further justification, this approach is unwarranted.

The Santa Monica Bay J2 & 3 Draft CIMP further states that "as all data are gathered and processed, major outfalls with dry-weather flows reaching the receiving water body and presence of E.coli at all three screening events will be deemed as exhibiting significant non-stormwater discharge."[81] This proposal suggests, for example, that one high flow event without the presence of E.coli would not be considered a "significant" discharge, and thus, would not require further action. This approach is inappropriate. Flow alone can impact the receiving water and indicate a potential illicit discharge. Further, flows can be intermittent, so could be captured on one site screening but not at others. This proposal should be modified to reflect the potential variability of source or conditions, or potential for non-bacteria related input.

To this end, we are concerned that E. coli was selected as the representative pollutant, as it is not representative of all constituents found in runoff (i.e. metals, organics, nutrients, etc.). This decision by the permittees requires further scientific justification.

The North Santa Monica Bay CIMP disregards dry-weather monitoring entirely at one of three receiving water monitoring locations proposed. The 2012 Permit states, "The receiving water shall be monitored a minimum of two times per year for all parameters, or more frequently if required by applicable TMDL Monitoring Plans. One of the monitoring events shall be during the month with the historically lowest instream flows, or where instream flow data are not available, during the historically driest month."(2012 Permit, Attachment E, at VI.D.1). However, Table 2-2 of the North Santa Monica Bay CIMP, "EWMP Area Receiving Water Monitoring Locations," indicates the Malibu Legacy Park outfall upstream of the Malibu Creek receiving water monitoring location (North Santa Monica Bay W-RW2) "only discharges during very large storm events. As a

[80] Santa Monica Bay J2 & 3 CIMP, at 47.
[81] *Id*. at 51.

result, sampling at this receiving water site will only be performed when discharges from the major outfall are present, since receiving water monitoring is intended to 'provide representative measurement of the effects of the Permittee's MS4 discharges on the receiving water' (Permit, attachment E, section VI.A.1.b.ii.)."[82] Permittees neglect to follow the minimum dry weather receiving water monitoring requirements clearly laid out in the Permit.

Dry-weather monitoring of receiving water is not contingent on outfall discharges. The North Santa Monica Bay permittees should include an additional stormwater discharge monitoring location at the Malibu Legacy Park outfall. The Malibu Creek receiving water monitoring location must be monitored a minimum of two times per year in dry weather regardless of MS4 discharges, as the Permit explicitly requires.

G. Rotating monitoring locations are inappropriate

Stormwater outfall based monitoring is required to be conducted three times per year for all parameters except aquatic toxicity. (2012 Permit, Attachment E, at VIII.B.1.a.) The Beach Cities CIMP proposes a bi-annual stormwater outfall based monitoring program for six of the seven outfalls within its management area. (Beach Cities Watershed Management Group, Coordinated Integrated Monitoring Program, (June 2014), at 30). This means that in a given year, only approximately 30 percent of the jurisdictional area is being monitored. It is unclear why a bi-annual approach was incorporated into their stormwater monitoring, and no justification is given for this approach. Furthermore, the bi-annual approach does not follow 2012 Permit requirements and should be rejected.

The Marina del Rey Toxics TMDL requires receiving water monitoring at 9 locations, in Front and Back Basins combined, in Marina del Rey Harbor. The Marina del Rey CIMP proposes to alter the Marina del Rey Toxics TMDL monitoring program; copper and PCB monitoring frequency and locations will be significantly reduced in the proposed CIMP.[83] It is both unlawful and premature to alter TMDL required monitoring when management action has not identified significant water quality improvements. Additionally, we are concerned that decreased TMDL monitoring will hinder proper comparison of past and future water quality data needed to assess water quality trends. Further, this decreased monitoring frequency will reduce ability to compare individual basins during rain events or wet periods, analysis needed to assess pollutant sources and TMDL compliance. The Board should reject attempts to deviate from required monitoring.

[82] North Santa Monica Bay CIMP, at 22.
[83] Marina del Rey CIMP, at15.

H. Aquatic toxicity monitoring methodology fails to meet requirements

Permittees are required to conduct aquatic toxicity monitoring in receiving waters and at outfalls for stormwater and non-stormwater. When conducting aquatic toxicity monitoring, Permittees are required to select the most sensitive species, from a list of Regional Board designated vertebrate, invertebrate, and plant species, for toxicity testing in fresh and saline environments. (2012 Permit, Attachment E, at XII.G.3.). Many watershed groups have forgone the sensitivity screening required in the 2012 Permit. For example, both the Marina del Rey CIMP and the Santa Monica Bay J2 & 3 CIMP omitted Macrocystis pyrifera (giant kelp) and Atherinops affinis (topsmelt) from sensitivity screening due to collection challenges during wet weather and survival and growth test duration limitations, respectively.[84] Further, the Upper Santa Clara River CIMP defers to *Ceriodaphnia dubia* (water flea) as the most sensitive species and forgoes the sensitivity screening.[85] Although the water flea is deemed more sensitive from some pollutants, that is not the case for all applicable TMDL pollutants in the Santa Clara River. The Upper Santa Clara River group must conduct the required screening. The 2012 Permit does not contemplate screening challenges or limitations as a reason for exclusion from sensitivity screening requirements.

Chronic toxicity testing using both the Test of Significant Toxicity t-test approach is required for fresh and marine species in wet and dry weather. (2012 Permit, Attachment E, at XII.). Many groups propose to forgo chronic toxicity testing during wet weather, and instead conduct acute toxicity testing. They inappropriately reason that chronic tests in wet weather samples generate results that are not representative of the conditions found in receiving water.[86] However, wet weather conditions can occur for extended periods of time. Thus, this proposal should be rejected.

When aquatic toxicity testing indicates survival or sublethal "Percent Effects Values" equal to or greater than 50 percent for the instream waste concentration, TIE and subsequent TRE, if triggered, analyses are required to identify management options for toxic pollutants. No later than 30 days after the source of toxicity and appropriate BMPs are identified, permittees are required to submit a TRE Corrective Action Plan to the Regional Water Board Executive Officer for approval. (2012 Permit, Attachment E, at XII.). Several watershed management groups do not follow this required approach for identifying and managing aquatic toxicity. For example, the Upper Los Angeles River and Upper Santa Clara River Watershed Groups propose to conduct follow up,

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[84] Marina del Rey Watershed Management Group, *Marina del Rey Coordinated Integrated Monitoring Program*, at D-24; J2&J3 Watershed Management Group CIMP at C-17.
[85] Upper Santa Clara River CIMP, at F-10.
[86] *See*, Upper Los Angeles River CIMP, at 23; Upper Santa Clara River CIMP, at F-11; Santa Monica Bay J2 & 3 CIMP, at C-18.

confirmation, aquatic toxicity analyses within two weeks of receiving initial sample results, before conducting a TIE when sub-lethal Percent Effect values are equal to or greater than 50 percent. This is concerning as water chemistry can fluctuate greatly between initial sampling and follow-up sampling. Furthermore, these watershed management groups propose to meet TRE requirements through the bi-annual adaptive management process, rather than through the submittal of a TRE Corrective Action with CIMPs. Thus, management actions addressing aquatic toxicity may take upwards of 2 years for implementation. These aquatic toxicity methodology modifications do not comply with the 2012 Permit and should be modified.

I. Monitoring programs improperly rely on adaptive management

The Upper Santa Clara River CIMP proposes to use the adaptive management process annually to evaluate the CIMP and update their monitoring requirements as necessary.[87] Adaptive management should only occur every two years as denoted in Section VI.C.8. of the 2012 Permit. Furthermore, the Upper Santa Clara River CIMP identifies several components of the monitoring program that are likely to change in the future (i.e. monitoring frequency, constituent monitoring, relocating outfalls, etc.), however the CIMP states that it will not be necessary to obtain Regional Board approval for these modifications, as they will have been identified in the CIMP.[88] The Upper Los Angeles River CIMP also proposes a similar adaptive management approach.[89] This does not comply with the adaptive management process outlined in the 2012 Permit; all modifications to monitoring programs need to be approved by the Regional Board before being implemented into a monitoring program.

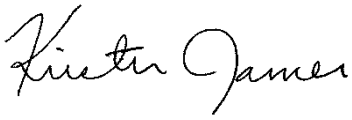
V. Conclusion

In addition to the general comments above, comments specific to selected EWMP Work Plans and Monitoring Plans are attached as Exhibits A-K. Environmental Groups appreciate this opportunity to comment on documents submitted under the LA MS4 Permit. Please feel free to contact us with any questions or concerns you may have.

[87] Upper Santa Clara River CIMP, at 45.
[88] *Id.* at 45.
[89] Upper Los Angeles River CIMP, at 52.

Sincerely,

Johanna Dyer
Staff Attorney
Natural Resources Defense Council



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