



August 18, 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 4<sup>th</sup> Street, Suite 200  
Los Angeles, CA 90013  
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***Re: Comments on Watershed Management 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 Watershed Management Programs (“WMPs”) and Monitoring Plans associated with the WMPs submitted by the permittees pursuant to requirements under 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, WMPs for the following watershed groups: The Lower Los Angeles River;<sup>1</sup> Los Angeles River, Upper Reach 2;<sup>2</sup> Los Cerritos Channel;<sup>3</sup> Lower San Gabriel River;<sup>4</sup> and Santa Monica Bay Watershed Jurisdiction 7.<sup>5</sup> Due to stylistic and technical differences of plans, we have submitted a separate comment letter on individual WMPs and associated Monitoring Plans for seven

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<sup>1</sup> Permittees include Downey, Lakewood, Long Beach, Lynwood, Paramount, Pico Rivera, Signal Hill, South Gate, and the Los Angeles County Flood Control District.

<sup>2</sup> Permittees include Bell, Bell Gardens, Commerce, Cudahy, Huntington Park, Maywood, Vernon, and the Los Angeles County Flood Control District.

<sup>3</sup> Permittees include Bellflower, Cerritos, Downey, Lakewood, Long Beach, Paramount, Signal Hill, and the Los Angeles County Flood Control District.

<sup>4</sup> Permittees include Artesia, Bellflower, Cerritos, Diamond Bar, Downey, Hawaiian Gardens, La Mirada, Lakewood, Long Beach, Norwalk, Pico Rivera, Santa Fe Springs, Whittier, and the Los Angeles County Flood Control District.

<sup>5</sup> Permittees include the City of Los Angeles and the Los Angeles County Flood Control District.

permittees (Carson, Compton, Gardena, Irwindale, Lawndale, South El Monte and West Covina).

We appreciate the opportunity to submit these comments to the Los Angeles Regional Water Quality Control Board (“Regional Board”). Where we do not address any specific WMP or particular issue within a WMP, that should not be taken as indication of our agreement with the sufficiency or legality of those WMPs or terms, and we urge the Regional Board to review all the submitted management plans in light of our comments here.

## **I. Introduction**

While we submit the following substantive comments on the WMPs and Monitoring Plans submitted by the permittees, Environmental Groups maintain that several provisions of the 2012 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<sup>6</sup> to the State Water Resources Control Board (“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.

Because of the deficiencies in the submitted draft WMPs, many of which are detailed below, the plans do 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. This letter and the attached exhibits are not intended to exhaust the reasons why the submitted WMPs fail to meet permit requirements and why the WMPs will not ensure compliance with receiving water limitations.

## **II. Summary of Comments**

Several of the WMPs reflect significant effort on the part of the permittees. However, the submitted WMPs 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

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<sup>6</sup> 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 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).

region's waters. The Regional Board may not approve these plans until such deficiencies are addressed. Common issues with the submitted WMPs and Monitoring Plans include:

1. In several WMPs, permittees use non-site specific data as the basis for watershed characterization efforts, yet fail to acknowledge any discrepancies or differences between the selected watershed area and the areas where the data were collected, rendering the watershed characterizations and source analyses inadequate;
2. Water body-pollutant classifications and prioritization in the WMPs are insufficient in some cases, and several of the watershed management groups' permittees fail to adequately characterize non-stormwater discharges or pollution reduction strategies;
3. Permittees make improper and unsubstantiated assumptions in compliance analyses and fail to include adequate calibration or validation of models:
  - a. Permittees make assumptions about the effectiveness of proposed pollution reduction strategies without providing requisite justification;
  - b. Permittees inappropriately rely on uncertain future legislation/policy changes (e.g. trash policy, legislation related to copper brakes and zinc in tires) to address current violations of RWLs and water quality based effluent limitations ("WQBELs");
  - c. Permittees place inappropriate weight on future adaptive management as a means of ensuring compliance instead of employing necessary measures to demonstrate current compliance with permit requirements;
  - d. Permittees fail to include calibration and/or validation of models as part of Reasonable Assurance Analyses ("RAAs");
4. Permittees inappropriately lessen their responsibility for reducing pollutant loads based on assumed regulation or action of non-MS4 entities;
5. Proposed projects to address runoff and comply with Permit terms lack specificity, and several WMPs fail to consider use of established practices and/or private land opportunities, and do not place sufficient emphasis on identifying and implementing multi-benefit solutions in general;
6. In several instances, proposed compliance deadlines are unreasonably long and extend well beyond the permit term;
7. Several WMPs do not provide certainty of compliance with the permit's Low Impact Development and Green Streets requirements;

8. Some monitoring plans are insufficient because they fail to include required information, they propose to sample less than the required number of wet weather events, and/or fail to include monitoring locations representative of land uses.

### **III. Common Deficiencies Identified in Draft WMPs**

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.) Permittees, in a WMP, must “ensure that discharges from the Permittee’s MS4 . . . do not cause or contribute to exceedances of receiving water limitations” or applicable TMDL provisions. (*Id.* at VI.C.1.d.) WMPs are additionally required, among other provisions, 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 (2012 Permit, 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.); and
- conduct a Reasonable Assurance Analysis (“RAA”) for each water body-pollutant combination addressed by the WMP. (VI.C.5.b.iv.(5).)

In numerous regards, and as detailed further below, the permittees fail to meet these or other legal requirements.

#### **A. Watershed Characterizations And Source Analyses Lack Site-Specific Information**

Permittees must evaluate existing water quality conditions and characterize the current stormwater and non-stormwater discharges in their watersheds. (Permit at VI.C.5.a). This step is critical to efforts to prioritize pollutants and management actions. Several permittees fail, however, to meet permit requirements where they apply data and observations from outside of their own sub-watersheds to characterize pollutant loading and assess sources of pollutants, without making necessary adjustments to account for the source data. In circumstances where data collected outside of the study area must be used, for whatever reason, the WMP and RAA must at least make adjustments, quantitative or qualitative, to account for the difference.

For example, the Lower San Gabriel River permittees’ characterization of current pollutant loading is in general based on data and analysis of conditions observed in the main stem San Gabriel River, which is almost entirely upstream of the Lower San

Gabriel River sub-watershed.<sup>7</sup> While there may be a limited data set to draw from (and a failure to collect additional data), the permittees nevertheless fail to discuss how the external data and analysis are (or are not) relevant to the lower portion of the river. Considering the difference in land uses and potential runoff volumes in the heavily developed Lower San Gabriel River watershed as compared with upstream drainage areas, the permittees must adjust their assumptions and watershed planning accordingly.

Similarly, almost all of the data used in the Los Angeles River, Upper Reach 2 (“Upper Reach 2”) assessment and planning come from outside of the Upper Reach 2 area.<sup>8</sup> In addition, the Upper Reach 2 WMP lacks analysis of data on illicit discharges, illicit connections, the number and types of industrial facilities, and areas with active construction – information that is all currently available and would help determine sources of key pollutants. (*See* 2012 Permit at VI.C.5.a.iii). Permittees in the Upper Reach 2 WMP claim that data collected under their Coordinated Integrated Monitoring Program will help properly characterize the watershed in the future, but this approach both violates the permit, which requires characterization of current conditions as part of the WMP submission, and, given the lack of current data presented, calls into question the basis of the submitted WMP and RAA.<sup>9</sup> This is especially problematic in a highly impervious and industrial sub-watershed, like Upper Reach 2, which can be expected to produce higher runoff volumes and pollutant concentrations than the county as a whole. In sum, where any permittee or WMP group uses data from outside their subject watershed, they must acknowledge that reality and make appropriate adjustments.

### **B. Water Body-Pollutant Classifications and Prioritization are Insufficient in Some Cases**

In addition to evaluating existing water quality conditions, permittees are required to classify and prioritize pollutants in each sub-watershed. (2012 Permit, at VI.C.5.a.ii.) 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. (*Id.* at VI.C.2.a.i.)

Many permittees fail to comply with this prioritization scheme. For example, the Lower Los Angeles River WMP improperly classifies trash in the Los Angeles River Estuary as

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<sup>7</sup> See, John L. Hunter and Associates (June 27, 2014) Lower San Gabriel Watershed Management Program, at 2-14, et seq. (“Lower San Gabriel WMP”)

<sup>8</sup> CWE (June 26, 2014) Los Angeles River Upper Reach 2 Watershed Management Area Watershed Management Program (WMP) Plan, at 21, et seq. (“Upper Reach 2 WMP”).

<sup>9</sup> Upper Reach 2 WMP, at 30.

Category 2A.<sup>10</sup> However, trash is clearly a TMDL pollutant; the Los Angeles River Trash TMDL specifically “includes Waste Load Allocations that would ensure attainment of standards in the Estuary,” and thus trash must be classified as Category 1.<sup>11</sup> Similarly, pH (which is addressed in the Los Angeles River Nitrogen Compounds and Related Effects TMDL)<sup>12</sup> should be classified in Category 1 instead of Category 2. The Lower Los Angeles River WMP is also deficient in its prioritization discussion. The highest Water Quality Priorities are reserved for, among other things, “Pollutants that are in the same class as a TMDL pollutant.” For example, all pesticides (similar to DDT and PCBs regulated under the Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants TMDL) should be prioritized as the highest level.<sup>13</sup>

Similarly, neither the Los Cerritos Channel WMP<sup>14</sup> nor Lower San Gabriel River WMP include aluminum as a Category 1 target despite that it is in the same “class” as other metals and has a similar fate and transport mechanism. Data demonstrate that aluminum has long exceeded RWLs in the Los Cerritos Channel and is on the 303(d) list.<sup>15</sup> Permittees must re-prioritize and ensure that selected control measures designed to control metals under the Metals TMDL will also address aluminum.

### **C. Many Permittees Make Inappropriate Assumptions With Regard To Predicted Pollution Reduction**

1. The permittees fail to provide justification for assumptions made about the effectiveness or scale of implementation of proposed pollution reduction strategies.

Multiple WMP groups make assumptions regarding the efficacy or expected degree of implementation for various pollutant reduction methods to conclude that TMDL requirements and RWLs will eventually be met for receiving waters within their jurisdictions without providing any requisite justification. For example, the RAA for the

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<sup>10</sup> John L. Hunter and Associates (June 27, 2014) Lower Los Angeles River Watershed Management Plan, at 2-3 (“Lower Los Angeles River WMP”).

<sup>11</sup> *See*, Regional Board, Res. No. 07-012, August 9, 2007.

<sup>12</sup> *See*, Regional Board, Res. No. 12-010, December 6, 2012.

<sup>13</sup> *See*, Lower Los Angeles River WMP at 2-13, 2-44, and 2-45.

<sup>14</sup> Richard Watson and Associates (June 28, 2014) Los Cerritos Channel Watershed Management Program (Los Cerritos Channel WMP”).

<sup>15</sup> *Id.* at 2-5; *see also*, Lower San Gabriel River Watershed Management Program, at Appendix B, (2009-10) 11, 14; (2010-11) 14, 18; (2001-12) 14, 18.

Lower San Gabriel River, Lower Los Angeles River, and Los Cerritos Channel WMP groups<sup>16</sup> states that:

a 10 percent load reduction was *assumed* to result from implementation of all nonstructural control measures outlined in the WMPs, setting the foundation of WMP implementation, and structural control measures provide additional load reduction.<sup>17</sup>

Non-structural controls are described generally by the RAA as including improvements to municipal ordinances and regulations, public outreach, street sweeping, and inspection and enforcement, among other practices. Additional “targeted” non-structural BMPs include programs to reduce sediment from construction sites and poorly stabilized areas, improved or increased street sweeping, and “encouraging” downspout disconnection programs.<sup>18</sup>

Similarly, the Upper Reach 2 WMP states that:

Load reductions derived from non-modeled, non-structural BMPs were *assumed* to be 5 percent of baseline loads for all pollutants following discussions with the Regional Board. These non-structural BMPs will include the following program enhancements (i.e., beyond the Permit minimum), with an emphasis on those BMPs that most effectively target urban stormwater bacteria sources: enhanced street sweeping, enhanced catch basin and stormdrain cleaning, enhanced commercial and food outlet inspection, enhanced pet waste controls, enhanced education and outreach, enhanced homeless waste control efforts, and enhanced IDDE efforts (including microbial source tracking to identify inputs of human fecal contamination into the MS4).<sup>19</sup>

Except for some quantification of reductions that may be possible due to the sediment reduction-based elements of the strategies presented by the Lower San Gabriel River, Lower Los Angeles River, and Los Cerritos Channel WMP groups, the RAA or WMPs for these watersheds provide no evidence or analysis to substantiate the claim that these practices will actually achieve a 5% or 10% reduction in pollutant loads. In fact, the RAAs flatly admit that they “assume” the benefit will accrue, rather than that any benefit

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<sup>16</sup> Tetra Tech and Paradigm Environmental (June 6, 2014) Reasonable Assurance Analysis for Lower Los Angeles River, Los Cerritos Creek, and Lower San Gabriel River (“Lower Rivers/Channel RAA”).

<sup>17</sup> Lower Rivers/Channel RAA, at 46 (emphasis added).

<sup>18</sup> (See, e.g., Lower San Gabriel River WMP, at 3-8 – 3-11; Lower Los Angeles River WMP, at 3-30, Table 3-11; Los Cerritos Channel WMP, at 3-9.)

<sup>19</sup> Upper Reach 2 WMP, at 82 (emphasis added).

has been demonstrated by modeling or other analytical means.<sup>20</sup> Moreover, as the identified non-structural programs or actions to be undertaken are not fully defined in either the RAA or WMPs for these groups, the groups provide no guarantee that these programs will be implemented in an effective or comprehensive manner. No specificity is provided on how these practices will differ from baseline programs or where and when they will be implemented. For example, the WMP for the Upper Reach 2 group states that for most identified practices, the proposed implementation approach will be to “consider” additional practices.<sup>21</sup> Many of these programs undoubtedly have the potential to achieve critically needed, and required, pollution reduction for these watersheds. However, regardless of whether the pollution strategies have potential to achieve some amount of reduction, claims of a 5% or 10% pollutant reduction to demonstrate compliance with permit requirements is unjustified here absent further information.<sup>22</sup>

The RAA for the Lower San Gabriel River, Lower Los Angeles River, and Los Cerritos Channel WMP groups additionally claims that for dry weather discharges or non-stormwater:

Similar to wet weather, a 10% load reduction is *assumed* to result from the cumulative effect of nonstructural BMPs. Also, the effects of a 25% reduction in irrigation of urban grass was explicitly simulated in the model to estimate the resulting associated reduction of dry weather flows at the RAA Assessment Points. Irrigation was modeled as artificial rainfall within the LSPC model as a function of the potential evapotranspiration of urban grass. Once irrigation was reduced 25%, this directly impacted a large portion of the non-stormwater discharges drivin [sic] primarily from over irrigation and impacts on dry weather flows were significant.<sup>23</sup>

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<sup>20</sup> Lower Rivers/Channel RAA, at 46; Upper Reach 2 WMP, at 82.

<sup>21</sup> Upper Reach 2 WMP, at 68.

<sup>22</sup> The Upper Reach 2 RAA additionally states that 25 percent of commercial and residential land uses not treated or served by proposed regional BMPs on the Los Angeles River side of Upper Reach 2 WMA would be treated using distributed “LID Streets.” (Upper Reach 2 WMP, at 83.) This amounts to nearly 18 percent of the total catchment, and no analysis is given to support whether this coverage can be attained (or alternately, whether it could be implemented at a higher level). (See also p. 67 – “The proposed structural control measures include both distributed and regional BMPS. Distributed BMPs will be implemented throughout the watershed in accordance with the Planning and Land Development Program specified by the MS4 Permit. The types and sizes of these BMPs are not identified, but assumptions are provided to support the quantities incorporated into the RAA.”)

<sup>23</sup> Lower Rivers/Channel RAA, at 51 (emphasis added).



As with the wet weather pollutant load reduction claim, no analytical justification is given for the 10% cumulative reduction from non-structural BMPs. Neither is any analytical or other justification given for the RAA's supposition that targeted irrigation reductions will decrease the quantity of irrigation water applied by 25% throughout the watershed. Of greater concern, the RAA further claims, in a footnote, that the alleged 25% irrigation reduction will result in an approximately 60% reduction in overall dry weather pollutant loadings.<sup>24</sup> These claims are particularly troubling; first, no defined strategy for attaining the initial 25% irrigation water reduction is articulated, calling into question the accuracy of this claim. Second and compounding the potential for error in actual outcome, no justification is given for the large 60% reduction claim, which given its greater claimed potential effect, has a correspondingly greater potential for negative impact on the WMPs' ability to achieve water quality goals if proven wrong. The RAA must provide quantitative justification for the above claims related to irrigation volume and pollutant load reduction controls or the Regional Board must reject these claims as unsupported.

2. Permittees inappropriately rely on future legislative and policy changes to address current water quality violations

Many permittees disproportionately rely on future legislative or policy changes to reduce current pollutant loads and to justify proposed management actions. For example, many permittees rely on SB 346, the copper brakes bill, to reduce copper loading and comply with copper limits in the Metals TMDLs.<sup>25</sup> This is particularly concerning given that the Lower Rivers/Channel RAA identifies zinc as the limiting pollutant for each Watershed Management Program area because "[a]lthough copper was calculated to have a higher required reduction than zinc, the effect of Senate Bill 346 is expected to reduce those

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<sup>24</sup> Lower Rivers/Channel RAA, at 51.

<sup>25</sup> See, e.g., Los Cerritos Channel WMP at 5-1; Upper Reach 2 WMP, at 82; Lower Los Angeles River WMP, at 3-1; Lower San Gabriel River WMP, at 3-2, 3-29. Several permittees estimate a 45-60% reduction in copper runoff as a result of SB 346 implementation, but fail to provide site-specific analyses to substantiate those claims or to demonstrate how the bill will allow permittees to meet interim or final WQBELs or RWLs. (See Lower Los Angeles River WMP, at XX; Lower San Gabriel River WMP, at 3-2). The Los Cerritos Channel Watershed Group commissioned a study, "Estimate of Urban Runoff Copper Reduction in Los Angeles County," but it was not attached to the WMP and is therefore difficult to evaluate further. (Los Cerritos Channel WMP, at 3-4). Further, this figure would appear to contradict with figures claimed by the groups' RAA, which states, "the Brake Pad Partnership commissioned several technical studies to better quantify the fate and transport of copper to San Francisco Bay including a detailed source assessment. Overall findings of the study estimated that of the anthropogenic sources of copper, approximately 35 percent are attributed to brake pad releases." (Lower Rivers/Channel RAA at 38.)

reductions without any implementation of structural control measures.”<sup>26</sup> While Environmental Groups also anticipate copper reduction over the next decade as SB 346 is implemented, the permittees must demonstrate through modeling or some other mechanism the extent of the legislation’s predicted impact in the relevant sub-watersheds so that they can determine what further action is necessary.

Even more speculative, several permittees mention *potential* legislation, which has yet to be drafted or passed, to regulate zinc and/or lead in tires as a means of pollutant reduction.<sup>27</sup>

With regard to trash control, several permittees in watersheds subject to trash TMDLs rely on past actions for compliance, but it is still unclear if controls are achieving required reductions. Permittees must assess current controls and associated operation and maintenance activities to determine what further action is needed to meet TMDL limits. Moreover, in watersheds that are not subject to a trash TMDL, some permittees fail to propose trash controls at all despite current impairments. Instead, permittees delay compliance until the statewide trash policy is approved by the State Board.<sup>28</sup> Of note, the State Board is contemplating “grand-fathering” all Region 4 trash TMDLs in its current draft. This delay and reliance on future policy is unacceptable. Permittees must address 303(d) pollutants in their WMPs as a high priority. (2012 Permit, at VI.C.2.a.ii).

There are several other instances where permittees cite Regional Board or State Board proceedings that are either proposed or underway as justification for either not addressing a pollutant or assuming that compliance will be achieved. For example, permittees cite the Regional Board’s Site Specific Objective Study for metals in the LA River as justification for proposed actions even though the study has not been officially approved or adopted as a Basin Plan Amendment.<sup>29</sup> The Upper Reach 2 WMP also relies on implementation of the nutrient TMDL at wastewater recovery plants but offers no details that allow verification.<sup>30</sup> Also, Los Cerritos Channel permittees fail to address ammonia because it has been proposed for de-listing and pH because they would “like to work with Regional Board staff... to delist pH,” despite the lack of resolution or public process on the issue.<sup>31</sup>

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<sup>26</sup> Lower Rivers/Channel RAA, at 38.

<sup>27</sup> See, Los Cerritos Channel WMP, at 3-5, 5-2; Lower Los Angeles River WMP, at 3-2.

<sup>28</sup> See, Los Cerritos Channel WMP, at 5-3.

<sup>29</sup> See, Upper Reach 2 WMP, at 20 and 78.

<sup>30</sup> *Id.* at vii.

<sup>31</sup> Los Cerritos Channel WMP, at 5-3.

3. Permittees place an inappropriate amount of reliance on future adaptive management instead of employing necessary measures immediately to comply with permit requirements

The WMP submission is required to demonstrate how permittees will meet RWLs or TMDL limits in the Permit. However, several permittees state they will delay addressing priority pollutants until they undergo the adaptive management process. Los Cerritos Channel permittees, for example, indicate that rather than addressing bacteria directly, they will wait and evaluate how controls targeting other pollutants impact *E. coli* levels in receiving waters.<sup>32</sup> This is unacceptable. Permittees must evaluate existing BMPs for effectiveness and determine what additional controls are now necessary to achieve receiving water limitations. This is especially true for high priority 303(d) pollutants such as bacteria.

4. At least one watershed group fails to demonstrate model calibration as part of its RAA.

The 2012 Permit requires that the Reasonable Assurance Analysis “be quantitative and performed using a peer-reviewed model.” (2012 Permit, at VI.C.5.b.iv.(5).) As part of the modeling requirements, the Guidelines for development of an RAA state that “to demonstrate the ability to predict the effect of watershed processes and management on land, soil, and receiving water body, model calibration and validation are necessary and critical steps in model application.”<sup>33</sup> This is done in order to “ensure the calibrated model properly assesses all the model parameters and modeling conditions that can affect model results,” and that “the calibrated model properly assesses all the variables and conditions in a watershed system.”<sup>34</sup>

The Upper Reach 2 WMP and associated RAA fails entirely to demonstrate model calibration or validation. The report merely states:

...the LAR UR2 WMA Reasonable Assurance Analysis (RAA) demonstrates, through a calibrated model, that Water Quality Objectives (WQOs) will be met through implementation of the actions in this Plan.<sup>35</sup>

The WMP and RAA further state:

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<sup>32</sup> See, e.g., Los Cerritos Channel WMP, at 5-3.

<sup>33</sup> Los Angeles Regional Water Quality Control Board (March 25, 2014) Guidelines for Conducting Reasonable Assurance Analysis in a Watershed Management Program, Including an Enhanced Watershed Management Program, at 12.

<sup>34</sup> *Id.*

<sup>35</sup> Upper Reach 2 WMP, at 1.

Target load reductions were established using the calibrated LSPC watershed model for the TMDL pollutants total nitrogen, total copper, total lead, total zinc, and fecal coliform.<sup>36</sup>

As a result, the results of the RAA are potentially invalid, and cannot be relied upon to accurately reflect conditions in the watershed.

#### **D. The Permittees Inappropriately Rely on Other Entities to Reduce Pollutant Loadings in Calculating Their Own Required Reductions**

The 2012 Permit states in part that, “Watershed Management Programs shall ensure that discharges from the Permittee’s MS4: (i) achieve applicable water quality-based effluent limitations in Part VI.E and Attachments L through R pursuant to the corresponding compliance schedules, (ii) do not cause or contribute to exceedances of receiving water limitations in Parts V.A and VI.E and Attachments L through R. . . .” (2012 Permit, at VI.C.1.d.) Permittees are, as a result, required to demonstrate that their discharges, as controlled by the WMP, will not “cause or contribute” to an exceedance of RWLs, including applicable water quality standards. However, the RAA for the Lower San Gabriel River, Lower Los Angeles River, and Los Cerritos Channel WMPs states that, in developing target runoff and pollutant reduction targets for the watershed permittees:

Each jurisdiction in the Group’s WMP area is subject to stormwater runoff from non-MS4 facilities. In particular, Caltrans roads and facilities regulated by nontraditional or general industrial permits contribute to the runoff volume for each subwatershed. It will be important for these entities to retain their runoff and/or eliminate their cause/contribution to receiving water exceedances. The runoff from these non-MS4 facilities was therefore estimated and subtracted from the cumulative volume reduction goal (Section 7) to establish the MS4 responsible targets.<sup>37</sup>

While we fully support measures to reduce stormwater runoff and pollutant loading sourced from non-MS4 facilities, because the permittees are prohibited, through implementation of a WMP or otherwise, from causing *or contributing* to an exceedance of the Permit’s RWLs, their reliance on, or assumption that non-MS4 sources will, in fact, eliminate their cause/contribution to receiving water exceedances, is improper. For example, in the event that these non-MS4 sources continue to add pollutant load to area receiving waters, the WMP groups’ contributions may result in an exceedance even if permittees achieved their targeted pollution reduction. Further, once pollution enters a permittee’s MS4 system, it is the MS4 permittee’s responsibility to address the loading. Permittees may not simply “pass the buck” to claim compliance with the Permit or

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<sup>36</sup> *Id.* at 72.

<sup>37</sup> Lower Rivers/Channel RAA, at 52.

broader Clean Water Act terms. The WMPs must establish their targeted reductions based on existing or known conditions, rather than hoped-for future circumstances.

**E. The Permittees' Proposed Projects to Address Runoff and Meet Compliance Lack Specificity, Fail to Incorporate Well-Established Practices, and Should Place Greater Emphasis on Identifying and Implementing Multi-Benefit Solutions Overall**

The 2012 Permit requires that, “[e]ach plan shall include...[f]or each structural control and non-structural best management practice, the number, type, and location(s) and/or frequency of implementation.” (2012 Permit, at VI.C.5.b.iv(4).) Permittees must also specify interim milestones and dates for achievement for each structural and non-structural BMP. (*Id.*) However, several WMPs fail to provide required specificity on the types, sizes, and locations of proposed BMPs and thus prove difficult to adequately evaluate.

For example, though broadly purporting to incorporate use of distributed “LID Streets” on 25 percent of commercial and residential land uses not served by proposed regional BMPs,<sup>38</sup> the Upper Reach 2 WMP does not include specific types or locations for proposed distributed street right-of-way BMPs. Similarly, although hundreds of *potential* BMP sites for regional or street right-of-way sites were identified in the Lower San Gabriel River WMP, the Lower San Gabriel River permittees do not provide any specifics on BMP type, location, or size. While the RAA for the Lower San Gabriel River, Lower Los Angeles River, and Los Cerritos Channel groups does present an allocation of BMPs or BMP treatment capacity within subwatersheds for each municipal permittee, it does not give further information as to proposed location or other required details.

In addition to failing to provide specificity regarding BMP selection, the WMP for the Upper Reach 2 watershed eschews numerous potential project siting opportunities that could strongly contribute to pollutant reduction in the watershed. The WMP establishes criteria for identifying regional BMP sites as:

- 1) at least 0.5 acres are available;
- 2) maximum distance to a storm drain is 100 feet; and
- 3) the site is publicly owned.<sup>39</sup>

As a result, no consideration appears to have been given to either opportunities for new public land acquisition or for public-private partnerships, significantly reducing overall

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<sup>38</sup> Upper Reach 2 WMP, at 83.

<sup>39</sup> Upper Reach 2 WMP, at 56 (“Parcels not meeting these criteria were not considered viable regional BMP locations”).

opportunities to achieve volume or pollutant load reduction objectives. Use of a well-balanced portfolio of public and private lands for stormwater management practices can actually result in a reduced cost of BMPs per unit area, as well as achieve additional benefits for both public entities and private landowners.<sup>40</sup>

Moreover, the Upper Reach 2 WMP has identified bacteria as the driver for BMP type selection, which the WMP generally limits to infiltration or subsurface wetland projects.<sup>41</sup> While both are appropriate treatment approaches for addressing bacteria pollution, we question why the WMP gives no consideration of more active treatment methods, such as ultraviolet or ozone disinfection.<sup>42</sup> Or, of greater concern, we question why the WMP identifies opportunities for distributed, structural BMPs including rainwater harvesting and use of vegetated or green roofs,<sup>43</sup> but appears to dismiss their use because their “model favored infiltration BMPs near subwatershed outfalls, which accept runoff from smaller events and allow larger events to be addressed as allowable exceedance days, over large numbers of distributed BMPs sized to rare larger events. . . .”<sup>44</sup> It is unclear why the utility of one BMP approach would inversely decrease the utility of another, when both could be used in tandem to result in less contaminated runoff occurring in the first instance.

Finally, we note that, while not an explicit requirement for WMPs, the 2012 Permit places substantial emphasis on identifying, developing, and implementing green infrastructure or other multi-benefit projects that will provide additional benefits or resources for the Los Angeles region. For example, 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,”

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<sup>40</sup> See, e.g., NRDC, EKO Asset Management Partners and the Nature Conservancy (January 2013) *Creating Clean Water Cash Flows: Developing Private Markets for Green Stormwater Infrastructure in Philadelphia*, accessed at <http://www.nrdc.org/water/stormwater/files/green-infrastructure-pa-report.pdf>; NRDC (December 2013) *The Green Edge: How Commercial Property Investment in Green Infrastructure Creates Value*, accessed at <http://www.nrdc.org/water/commercial-value-green-infrastructure.asp>.

<sup>41</sup> Upper Reach 2 WMP, at 56.

<sup>42</sup> We also note that the analysis may be conservative in estimating infiltration potential for the region—the analysis considered infiltration rates to be between 0.17 to 0.36 inches/hour, more typically found for clay loams which may not be present in the LAR UR2 Upper Reach 2 area. (See <http://www.fao.org/docrep/s8684e/s8684e0a.htm>.) Even if there should be somewhat restricted infiltration in a native soil like clay loam, compost amendments can be used to increase soil storage and boost the opportunity for infiltration.

<sup>43</sup> Upper Reach 2 WMP, at 42.

<sup>44</sup> *Id.* at 19.

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).) Further, permittees developing an Enhanced Watershed Management Program (“EWMP”) are 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.)

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.<sup>45</sup> The implementation of multi-benefit projects can often help to leverage funding dollars.

While many of the BMPs identified in the various WMPs have the potential to result in multiple benefits for their corresponding communities, there is little emphasis placed on use of multi-benefit strategies in the WMPs, of specific additional benefits that could be

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<sup>45</sup> 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 <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>.

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.<sup>46</sup> We strongly urge the permittees, in revising their respective WMPs, to place additional focus on potential to achieve multiple environmental or community benefits through implementation of their WMPs.

**F. Many Proposed Compliance Deadlines Are Illegal Or Otherwise Unreasonably Long And Beyond The Permit Term, And Many Permittees Still Fail To Meet Compliance Deadlines**

The Permit requires each WMP to include both interim and final deadlines for achieving WQBELs and RWLs. For TMDL pollutants, permittees must identify interim milestones and dates for their achievement “to ensure adequate progress toward achieving interim and final [WQBELs] and/or [RWLs].” (2012 Permit, at VI.C.5.b.iv(5)). For pollutants not addressed by TMDLs, permittees shall demonstrate that control measures identified “will achieve applicable receiving water limitations *as soon as possible*.” (*Id.* (emphasis added).) And federal regulations provide the guideposts for setting compliance schedules under NPDES Permits. Compliance schedules must lead to compliance “as soon as possible,” (40 C.F.R. § 122.47(a)(1)), and must comply with specific requirements including: (1) if the compliance schedule exceeds one year, it must include interim compliance deadlines; (2) interim deadlines must be no more than one year apart; and (3) if the time necessary for completion of any interim requirement is more than one year and is not readily divisible into stages for completion, the permit shall specify interim dates for the submission of reports of progress toward completion of the interim requirements and indicate a projected completion date. (40 C.F.R. § 122.47(a)(3).) Despite this clear language, several WMPs fail to both set interim milestones and set ultimate compliance within a reasonable timeframe.

For example, Upper Reach 2 permittees propose to *begin* Regional BMP construction in 2028 in the main stem and sometime before 2024 in the Rio Hondo segment; completion is set for 2037 and 2028 respectively.<sup>47</sup> It is unreasonable for permittees to *begin* construction on BMPs 12 to 16 years after the adoption of the Permit, especially where permittees are inappropriately relying on future legislative and or policy actions for the first several years of the permit term. Further, permittees set ultimate compliance with RWLs for 2037 in the Upper Reach 2 WMP and 2040 in the Los Cerritos Channel WMP.<sup>48</sup> In the Los Cerritos Channel WMP, the proposed 2040 deadline applies to coliform bacteria, among other pollutants, which is a 303(d) listed and high priority pollutant under the permit. Similarly, Los Cerritos Channel permittees set the final

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<sup>46</sup> See, e.g., Upper Reach 2 WMP, at 56, 105 (discussing use of utility transmission and freeway corridors).

<sup>47</sup> See Upper Reach 2 WMP, at 73, 98.

<sup>48</sup> See Upper Reach 2 WMP, at Table 1-6; Los Cerritos Channel WMP, at 6-1.



compliance date for trash as 2025 while Trash TMDLs for nearby watersheds have final compliance deadlines of 2015 and 2016.<sup>49</sup> The majority of deadlines are set arbitrarily and WMPs fail to include adequate explanation of such long compliance periods or the failure to prioritize 303(d) pollutants such as trash and bacteria. Permittees must set reasonable deadlines that occur “as soon as possible” and in no event longer than existing deadlines.

Moreover, in several instances, permittees incorrectly set interim limits for TMDL compliance for TMDLs that are past due and subject to final compliance limitations currently. For example, the Lower San Gabriel River WMP establishes an interim limit for pollutants subject to the San Gabriel River metals and selenium TMDL.<sup>50</sup> However, this TMDL, which has been in effect since 2007, 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.<sup>51</sup> The interim limits for TMDL compliance in the WMP are therefore not authorized, and the Lower San Gabriel River WMP, or other WMPs implementing similar CTR based criteria must be revised to demonstrate immediate compliance for these pollutants.

Finally, despite the unreasonably long compliance deadlines the permittees have given themselves, many nevertheless fail to meet even these generous timelines. For example, compliance deadlines have been exceeded for the following local TMDLs, which are currently not in compliance: Santa Monica Bay Beaches Bacteria (both summer dry weather and winter dry weather); Malibu Creek and Lagoon Bacteria (both summer dry weather and winter dry weather); Ballona Creek, Ballona Estuary, and Sepulveda Channel Bacteria (dry weather); Los Angeles River Nitrogen Compounds and Related Effects.

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<sup>49</sup> See Regional Board, Res No. 2004-023, March 4, 2004 (Ballona Creek Trash TMDL); Regional Board, Res. No. 2007-012, Aug. 9, 2007 (Los Angeles River Trash TMDL).

<sup>50</sup> Lower San Gabriel River WMP, at 2-1.

<sup>51</sup> 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.

**G. Modifications to previously noted deficiencies in the Low Impact Development and Green Streets requirements should be discussed**

The 2012 Permit provides permittees additional time to submit draft WMPs if permittees demonstrate that final LID ordinances and green street policies are in place and if permittees continue to implement their existing storm water management programs in the interim (2012 Permit, at VI.C.4.c.) All of the MS4 permittees submitted notices of their intent to develop these policies and take the additional time allotted in June 2013. Heal the Bay reviewed draft LID and Green Streets requirements that were submitted to the Regional Board by the permittees' in their Notices of Intent and submitted a letter to the Regional Board on November 4, 2013 describing deficiencies with many of the drafts.<sup>52</sup> In response, the Regional Board issued memoranda to the permittees on January 24, 2014 and April 16, 2014 articulating concerns about some areas not meeting the 2012 Permit's requirements in Part VI.D.7-Planning and Land Development Program.<sup>53</sup>

The memos asked the permittees to make modifications to their LID and green streets submissions such as to include reference documents in WMPs that address technical specifications such as BMP design and maintenance; removing proposals for permittees to grant "waivers" for certain projects without any BMP implementation; and clarifying alternative compliance options to ensure permittees comply with 2012 permit requirements. Most of the WMPs do not discuss how, if at all, permittees have responded to the concerns outlined in the Regional Board memoranda. These elements need to be addressed to ensure compliance with the 2012 Order and to demonstrate that the time extension for permittees to submit their WMPs was, in fact, warranted.

Although not addressed in the Regional Board's memoranda, we remain concerned that meaningful green street projects may not be implemented during the permit cycle. This is particularly relevant in light of permittees raising budgetary constraints as an excuse for not implementing green streets projects and the presence of only vague implementation triggers. We believe that these off-ramps do not meet the intent of the Order's requirements.

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<sup>52</sup> Heal the Bay letter to Mr. Sam Unger, Executive Officer, Los Angeles Regional Water Quality Control Board. November 4, 2013.

<sup>53</sup> Memorandum from Mr. Samuel Unger, Executive Officer, Los Angeles Regional Water Quality Control Board to Los Angeles County MS4 Permittees. "Los Angeles County MS4 Permit Early Action Requirements for Permittees Pursuing an Enhanced Watershed Management Program or 18-month Watershed Management Program – Low Impact Development Ordinances and Green Streets Policies." January 24, 2014; Memorandum from Mr. Samuel Unger, Executive Officer, Los Angeles Regional Water Quality Control Board, to Los Angeles County MS4 Permittees. "Comments on Low Impact Development Ordinances and Green Street Policies." April 16, 2014.

Further, we are in general concerned that permittees are not proposing to go beyond the minimum requirements to take full advantage of these types of policies. Implementing policies that expand threshold triggers for projects or increase the performance standard, for example, would increase the policies' impact on pollution reduction. This is a missed opportunity for many permittees.

## **H. Common Deficiencies Identified in Monitoring Plans**

Environmental Groups have also identified several areas in which permittees have failed to include required elements in their draft monitoring plans, particularly with respect to supplying necessary information and proposing sufficient monitoring for outfalls.

### **1. Lack of Appropriate Maps**

Under the Permit, a Coordinated Integrated Monitoring Program ("CIMP") is required to provide a map (preferably in GIS) with relevant information about the monitoring plan including receiving waters, catchment drainages and outfalls, subwatershed boundaries (i.e., HUC 12), land uses, and the proposed receiving water monitoring stations for both dry weather and wet weather receiving water monitoring. (2012 Permit, at E-14.) Well-drawn maps may be helpful in assessing a CIMP's value, as well as a monitoring program's effectiveness or lack thereof. An absence of useful maps may impede the ability of regulators and the public to identify exceedances, TMDL noncompliance and the sources of contaminants.

Many of the submitted CIMPs include very few maps (*see, e.g.,* the Lower San Gabriel River CIMP, which includes only two maps), and the vast majority of the maps that were included fail to meet a large number of the Permit's requirements. In contravention of the requirements, most of the included maps are illegible or barely legible, poorly labeled, and generally lack the required information and detail necessary to assess a monitoring program's adequacy with respect to Permit objectives. The included maps also fail to identify much of the information required by the 2012 Permit, including land uses, receiving waters, and HUC 12 units. For example, the Los Cerritos Channel CIMP contains four small maps, none of which identifies any of the aforementioned required information. Similarly, the Lower San Gabriel River and Lower Los Angeles River CIMPs' maps fail to identify land uses or HUC 12 units (and therefore whether the number of monitored outfalls meets the requirements), and are not fully legible.

### **2. Inadequate and Unrepresentative Monitoring**

The Permit requires monitoring of at least one major outfall per subwatershed (HUC 12) drainage area on a set schedule, a requirement with which some CIMPs fail to comply. (2012 Permit, at E-21.) For example, in the Lower Los Angeles River CIMP, stormwater outfall monitoring will expressly fail to comply with MS4 outfall requirements for at least the next three years. Only two of the four required monitoring sites currently exist,

and the additional two additional sites will not be added for two years.<sup>54</sup> It should also be noted that a number of the CIMPs fail to identify applicable TMDL monitoring requirements as required under the 2012 Permit.<sup>55</sup> (2012 Permit, at E-4.)

Additionally, under the 2012 Permit, outfalls selected for monitoring “shall be representative of the land uses within the Permittee’s jurisdiction.” (2012 Permit, at E-21.) However, compliance with this requirement is not at all clear from the figures and language of many of the CIMPs. For example, while the Los Cerritos Channel CIMP does lay out the watershed acreage under various uses (i.e., low-density residential, high-density residential, commercial, industrial) and claims to have completed a land-use overlay for mapping, it fails to provide maps or measurements indicating the land uses of the drainages to outfalls, and whether they are representative of the land uses within the jurisdiction.<sup>56</sup>

#### **IV. Conclusion**

In addition to the general comments above, comments specific to selected WMPs and monitoring plans are attached as Exhibits A-E. 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.

Sincerely,



Johanna Dyer  
Staff Attorney  
Natural Resources Defense Council



Kirsten James  
Science and Policy Director, Water Quality  
Heal the Bay



Liz Crosson  
Executive Director  
Los Angeles Waterkeeper

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<sup>54</sup> Lower Los Angeles River CIMP, at 9.

<sup>55</sup> See, e.g., the Los Cerritos Channel CIMP (failing to identify TMDL compliance requirements).

<sup>56</sup> Los Cerritos Channel CIMP, at 10, 51.