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October 20, 2011

Jeanine Townsend
Clerk to the Board
State Water Resources Control Board
P.O. Box 100
Sacramento, CA 95812-2000

Subject: Dominguez Channel/Harbor Toxics TMDL

Dear Ms. Townsend:

The **City of Lawndale** is pleased to offer comments regarding the proposed basin plan amendment to include the Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters (DC/Harbors Toxics TMDL). The City recommends that the State Board remand this TMDL to the Los Angeles Regional Water Quality Control Board to make the following revisions:

1. ***Establish the Outfall or the Nearest Point upstream from it within a Permittee's MS4 as the only Compliance Point.***

   The DC/Harbor Toxics TMDL allows for both the outfall and receiving water as compliance determinants. According to the DC/Harbor Toxics TMDL staff report:

   The compliance point for the stormwater WLAs shall be at the storm drain outfall of the permittee's drainage area. Alternatively, if stormwater dischargers select a coordinated compliance monitoring option, the compliance point for the stormwater WLA may be at storm drain outfalls or at a point in the receiving water, which suitably represents the combined discharge of cooperating parties discharging to Dominguez Channel and Greater Los Angeles and Long Beach Harbor waters.[1]

[1] *Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants, page 110.*

The problem is that an outfall can discharge runoff from more than one MS4 permittee. This then raises the question of how an exceedance would be handled. What if two permittees discharge to the same outfall and one permittee meets the WLA but another does not? An exceedance would hold both permittees responsible. However, should the Regional Board or a third party take action against both permittees it would be difficult to determine which permittee actually caused the exceedance. This very issue was at the heart of NRDC v. Los Angeles County Flood Control District. In that recent case, the 9th District Court of Appeal pointed to the difficulty in knowing whether the County flood control district had caused or contributed to a receiving water exceedance. The monitoring data was taken from in-stream mass emissions stations in receiving water bodies that detected exceedances over several years. Because the County was not the only discharger to the receiving waters, it was impossible to know who in fact caused or contributed to the exceedances. The same issue would be raised if an outfall, which federal regulations define as a 36" pipe or larger, discharges runoff from two separate MS4 permittees. Monitoring for WLA compliance, therefore, would have to occur at the last point of discharge before entering an outfall that is shared by one or more other MS4 permittees.

The DC/Harbor Toxics TMDL's option of allowing permittees achieve compliance in the receiving water – if part of a coordinating monitoring plan with other permittees – presents the same problem. In this case, there would be multiple dischargers responsible for meeting a single WLA in the receiving water. In contrast, allowing each permittee to monitor discharges that are representative of pollutants generated from with its jurisdiction allows for a more accurate determination of the extent to which it is complying with a WLA.

It also enables the permittee to evaluate the performance of structural and non-structural best management practices (BMPs) in meeting a WLA. Having multiple MS4 permittees subject to a single WLA that would be measured in the receiving water would make it difficult if not possible to know if the BMPs implemented by a specific MS4 are attaining WLAs.

The City raised the issue of outfall versus receiving water monitoring for compliance purposes in the comments that it submitted to the Regional Board. In its response to comments, the Regional Board did not address the issue.

The City believes it is imperative to establish either at the outfall (if an MS4 permittee exclusively discharges from it) or an upstream point within its MS4 nearest to the outfall, the compliance point as required under federal stormwater regulations. Outfall/end-of-pipe data from individual MS4s would provide valuable data in evaluating the effectiveness of a MS4 permittee's BMPs as well. Receiving water monitoring should only be used to generally gauge the health of

the receiving water and verifying the adequacy of the WLA required to protect its beneficial use(s).

2. ***TMDL Cannot Use Fish Tissue, Sediment, and Water Quality Monitoring to Determine Compliance***

   Compliance with this TMDL *will be determined through water, sediment, and fish tissue monitoring and comparison with the DC/Harbor Toxics TMDL waste load and load Allocations and numeric targets*[2]. As mentioned, compliance with the DC/Harbor Toxics TMDL should be determined by BMPs, which translates WLAs through Water Quality Based Effluent Limits (WQBELs). While WLAs can be established to protect a beneficial use for a receiving water, they cannot be used require absolute compliance. Such monitoring exceeds federal stormwater regulations and lies outside the scope of MS4 permit.

3. ***Reference Water Quality Based Effluent Limitations (WQBELs) as the means of Translating the DC/Harbor Toxics TMDLs Numeric Waste Load Allocation (WLA) into BMPs.***

   The final staff report for this TMDL states that: ... *final WLAs will be included in MS4 permits in accordance with NPDES regulations and guidance (40 CFR 144.22(d)(1)(vii)(B); US EPA Memorandum "Revisions to the November 22, 2002 Memorandum 'Establishing Total Maximum Daily Load (TMDL) Wasteload Allocations (WLAs) for Storm Water Sources and NPDES Permit Requirements Based on Those WLAs'" (November 12, 2010).*

   Although these memoranda give the permitting authority the discretion to resort to numeric or non-numeric WQBELs in meeting a WLA, it appears that Regional Board staff has interpreted the memo to mean that only numeric WQBELs may be used. Further, the Regional Board is interpreting a numeric WQBEL to mean absolute compliance with a numeric waste load allocation by any BMP means necessary. Both of these views are inaccurate.

   In its response to comments, Regional Board staff asserted that *if the WLA is translated into the NPDES permit directly as a numeric WQBEL, nothing limits the Board's authority to require compliance with this limitation.*[3] On its face, the Regional Board's responder here is partially correct. As the permitting authority the Regional Board can use a numeric WQBEL to translate a WLA into BMPs. It can also rely on narrative, non-WQBELs. What it cannot do is require a WQBEL and WLA to be one of the same, which is the Regional Boards staff's incorrect

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[2] *Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants*, page 116.

[3] *Comment Summary and Responses Total Maximum Daily Load for Toxic Pollutants in Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters*, page 12.

definition of a numeric WQBEL. This is consequential because it means that affected permittees must comply with the WLA by any BMP means necessary.

This view is by no means worst-case. This is exactly what the Los Angeles Regional Board did when it incorporated the Santa Monica Bay Beaches dry weather bacteria TMDL into the current Los Angeles MS4 permit in 2007. Compliance with the dry weather WLA was absolute. Exceedances detected in an in-stream monitoring station in Santa Monica Bay prompted the Regional Board to issue notices of violation to 22 municipal permittees. Furthermore, in placing this TMDL into the current permit, the Regional Board clearly did not comply with USEPA's TMDL guidance memorandum issued in November of 2002:

> *Where a TMDL has been approved, NPDES permits must contain effluent limits and conditions consistent with the requirements and assumptions of the waste load allocations in the DC/Harbor Toxics TMDL. See 40 CFR § 122.44(d)(1)(vii)(B). Effluent limitations to control the discharge of pollutants generally are expressed in numerical form. However, in light of 33 U.S.C. §1342(p)(3)(B)(iii), EPA recommends that for NPDES-regulated municipal and small construction storm water discharges effluent limits should be expressed as best management practices (BMPs) or other similar requirements, rather than as numeric effluent limits. See Interim Permitting Approach for Water Quality-Based Effluent Limitations in Storm Water Permits, 61 FR 43761 (Aug. 26, 1996). The Interim Permitting Approach Policy recognizes the need for an iterative approach to control pollutants in storm water discharges.*[4]

A WQBEL, numeric or non-numeric, is a mechanism that translates compliance with a WLA into BMPs. In *Divers' Environmental Conservation Organization v. State Water Resources Control Board*, the 4th District Appellate Court held that CWA §122.44(k)(2) authorizes the use of BMPs in meeting water quality standards addressed under § 122.44(d)(1)(ii). The court explained:

> *The best management practices authorized by §122.44(k)(2) constitute water quality based effluent limitations that a permitting authority may employ.* [5]

In reviewing 122.44(k)(2) it is clear that BMPs are to be used when authorized under section 402(p) of the CWA for the control of stormwater discharges:

> (k) *Best management practices (BMPs)* to control or abate the discharge of pollutants when ... (2) Authorized under section 402(p) of the CWA for the control of storm water discharges.[6]

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[4]USEPA, *Establishing Total Maximum Daily Load (TMDL) Wasteload Allocations (WLAs) for Storm Water Sources and NPDES Permit Requirements Based on Those WLAs*, November 22, 2002, *page.*
[5]See *Divers*, 145 Cal. App. 4th 246; 51 Cal. Rptr. 3d 497.
[6]See 40 CFR 122.44(k)(2)

And section 402(p)(iii), which applies to municipal and industrial stormwater discharges, requires:

> *... controls {BMPs} to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system, design and engineering methods, and such other provisions as the Administrator or the State determines appropriate for the control of such pollutants.*[7]

Since the DC/Harbor Toxics TMDL contemplates implementation through the MS4 permit, it is clear that BMPs (structural and non-structural) are to be used to meet water quality standards, including TMDLs.

This view is also supported by TMDLs and MS4 permits adopted by other Regional Boards, including Santa Ana, San Diego, and San Francisco. For example, the San Diego Regional Board referenced WQBELs and how they are to operate in the *Revised Total Maximum Daily Loads for Indicator Bacteria Project I – Twenty Beaches and Creeks in the San Diego Region (Including Tecolote Creek):*

> *The DC/Harbor Toxics TMDLs will be implemented primarily by revising and re-issuing the existing WDRs and National Pollutant Discharge Elimination System (NPDES) requirements that have been issued for discharges from Phase I MS4s and Caltrans MS4s. Federal regulations require that NPDES requirements incorporate water quality based effluent limitations (WQBELs) that must be consistent with the requirements and assumptions of any available WLAs, which may be expressed as numeric effluent limitations, when feasible, and/or as a best management practice(BMPs program of expanded or better-tailored BMPs.*[8]

Furthermore, the MS4 permit limits the BMPs to intra-jurisdictional implementation – not outside of it, as is suggested in the DC/Harbor Toxics TMDL's reference to remediation of contaminated sediment in the harbors. Once again, an MS4 permit is a point source permit that controls stormwater discharges through BMPs from the end-of-pipe to a receiving water. A receiving water, therefore, does not lie within the scope of the MS4 permit.

Returning to the matter of numeric WQBELs, which the City interprets to mean "numeric BMPs," which are an alternative to narrative, non-numeric WQBELs, the Regional Board also appears to be unclear on the federal definition of a numeric WQBEL. In its November 2010 revised memorandum on TMDL WLA incorporation

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[7] See CWA Section 402(p)(iii).

[8] Revised *Total Maximum Daily Loads For Indicator Bacteria Project I – Twenty Beaches and Creeks in The San Diego Region* (Including Tecolote Creek), Final Technical Report, Adopted by the California Regional Water Quality Control Board, February 10, 2010, page 5.

into MS4 permits, USEPA recommended, where feasible, the use of numeric WQBELs in implementing WLAs by relying on numeric parameters such as pollutant concentrations, pollutant loads, or numeric parameters such as a surrogates for pollutants ...[9] Further, the memorandum discusses two types of numeric WQBELs: numeric BMPs and surrogate parameters. Neither suggests absolute compliance with a WLA by any means necessary.

In terms of numeric BMPs, USEPA's 2010 guidance memo, under the heading of *Providing Numeric Water Quality Based Effluent Limitations in NPDES Permits for Stormwater Discharges*, explains:

> *Where WQBELs in permits for storm water discharges from MS4s, small construction sites or industrial sites are expressed in the form of BMPs, the permit should contain objective and measurable elements (e.g., schedule for BMP installation or level of BMP performance). The objective and measureable elements should be included in permits as enforceable provisions. Permitting authorities should consider including numeric benchmarks for BMPs and associated monitoring protocols or specific protocols for estimating BMP effectiveness in stormwater permits. These benchmarks could be used as thresholds that would require the permittee to take additional action specified in the permit, such as evaluating the effectiveness of the BMPs, implementing and/or modifying BMPs, or providing additional measures to protect water quality.*[10]

Thus, within the context of the above, a numeric BMP (1) is measurable and when placed in the MS4 permit is enforceable; and/or (2) includes numeric benchmarks for BMPs to evaluate their performance.

On the hand other, a surrogate parameter-type of numeric WQBEL is one that (1) replaces a numeric WLA (e.g., 1 toxic unit chronic for the Dominguez Channel/Harbors TMDL) with flow or impervious cover, for example; and (2) uses BMPs that reduce flow or impervious cover to attain the surrogates (low impact development strategies, primarily). As USEPA's 2010 guidance memorandum explains:

> *A more straightforward way to regulate stormwater contributions to water body impairment would be to use flow or a surrogate, like impervious cover, as a measure of stormwater loading (such as in the Barberry Creek TMDL [Maine DEP, 2003, pp. 16–20] or the Eagle Brook TMDL [Connecticut DEP, 2007, pp. 8–10]). Flow from individual stormwater sources is easier to*

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[9] *Revisions to the November 22, 2002 Memorandum "Establishing Total Maximum Daily Load (TMDL) Waste d Allocations (WLAs) for Storm Water Sources and NPDES Permit Requirements Based on Those WLAs,"* page 2.

[10] Ibid. page 3.

> *monitor, model, and even approximate as compared to calculating the loadings of individual contaminants in stormwater effluent.* ***Efforts to reduce stormwater flow will automatically achieve reductions in pollutant loadings***.[11]

The Maine model, for example, which addresses the Barberry Creek TMDL, sets a 10% impervious cover reduction over the term of the MS4 permit. Impervious cover reduction *serves as a surrogate for the mix of pollutants in stormwater, and for lead (Pb) and zinc (Zn) which serve as surrogates for the array of metals in stormwater.* Reducing impervious cover, of course, reduces flow. Implemented through the City of Portland's MS4 permit, different categories of BMPs are required to meet the surrogate target, *including disconnection and conversion of impervious surfaces, stream restoration techniques, as well as a list of BMPs for mitigating impacts of impervious cover.*

What is also important to note about this TMDL alternative is that it is incorporated into Portland's MS4 permit and calls for an "adaptive management approach" (same as adaptive/iterative approach). In other words, if the impervious cover reduction (which really means reduced flow) target is not met by the end of the term of the permit, Portland would not be out of compliance. Therefore, a surrogate parameter as a numeric WQBEL cannot be viewed as something that requires absolute compliance with a numeric limit.

4. ***DC/Harbors TMDL to Reference to the Adaptive/Iterative Process***

As with the Los Angeles Rivera Bacteria TMDL, the DC/Harbors Toxics TMDL does not discuss the adaptive/iterative process. When this issue was brought to the Regional Board's attention in written comments prior to the DC/Harbor Toxics TMDL's adoption, staff asserted that:

> *... federal regulations do not suggest that the iterative/adaptive process is an inherent component of BMP based permit requirements. TMDLs are the backstop for the Clean Water Act in cases where effluent limitations or BMPs have been inadequate to achieve water quality standards. Indefinitely continuing such an iterative/adaptive approach without greater specificity in terms of implementation schedules and numeric limitations is not in the best interest of water quality.*[12]

The Regional Board commenter may be correct in asserting that federal stormwater regulations do not require an adaptive/iterative process. However, USEPA stormwater guidelines do in fact recommend this procedure in three documents: (1) *Interim Permitting Approach for Water Quality-Based Effluent Limitations in Storm*

[11] Ibid. page 3.
[12] *Comment Summary and Responses Total Maximum Daily Load for Toxic Pollutants in Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters*, page 13.

Water Permits (1996); (2) *Establishing Total Maximum Daily Load (TMDL) Wasteload Allocations (WLAs) for Storm Water Sources and NPDES Permit Requirements Based on those TMDLs (November 22, 2002)* and (3) *Revisions to the November 22, 2002 Memorandum, Establishing Total Maximum Daily Load (TMDL) Wasteload Allocations (WLAs) for Storm Water Sources and NPDES Permit Requirements Based on those TMDLs, November 12, 2010.*

Regarding USEPA's interim permitting approach memorandum, USEPA's policy intent here was to *use best management practices (BMPs) in first-round storm water permits, and expanded or better-tailored BMPs in subsequent permits, where necessary, to provide for the attainment of water quality standards.*[13] In fact, this language is reflected in the aforementioned bacteria TMDLs adopted by the Santa Ana and San Diego Regional Boards.

Similarly, the 2002 USEPA memorandum on TMDL guidance states:

> *Under certain circumstances, BMPs are an appropriate form of effluent limits to control pollutants in storm water. If it is determined that a BMP approach (including an iterative BMP approach) is appropriate to meet the storm water component of the DC/Harbor Toxics TMDL, EPA recommends that the DC/Harbor Toxics TMDL reflect this... Where BMPs are used, EPA recommends that the permit provide a mechanism to require the use of expanded or better-tailored BMPs when monitoring demonstrates they are necessary to implement the WLA and protect water quality.*[14]

This message is repeated again in USEPAs revised 2010 memorandum. In its discussion of the aforementioned "numeric benchmarks" for BMPs, this memorandum also explains:

> *These benchmarks could be used as thresholds that would require the permittee to take additional action specified in the permit, such as evaluation the effectiveness of the BMPs, implementing and/or modifying BMPs, or providing additional measures to protect water quality.*[15]

It can be inferred from this statement that the iterative process even applies to numeric WQBELs.

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[13] *Memorandum from Robert Perciasepe, Assistant Administrator, to EPA Water Management Division Directors,* August 8, 1997, page 1.

[14] *Memorandum from Robert H. Wayland, III, Director Office of Wetlands, Oceans, and Watersheds, and James A. Hanlon, Director, Office of Wastewater Management, USEPA to Water Division Directors, Regions 1-10,* November 22, 2002, page 5.

[15] *Revisions to the November 22, 2002 Memorandum "Establishing Total Maximum Daily Load (TMDL) Waste Load Allocations (WLAs) for Storm Water Sources and NPDES Permit Requirements Based on Those WLAs,"* page 2.

The Regional Board's comment about *indefinitely continuing such an iterative/adaptive approach without greater specificity in terms of implementation schedules and numeric limitations is not in the best interest of water quality* is premature. None of the DC/Harbor Toxics TMDLs incorporated into the MS4 permit has been subject to the iterative process. This includes the Santa Monica Bay Beaches Dry Weather Bacteria TMDL and the Los Angeles River Trash TMDL. And the DC/Harbor Toxics TMDLs that are planned for implementation in the next MS4 permit will constitute the first iteration of BMPs to be implemented in it – assuming that that their WLAs are first translated into BMPs through a WQBEL. Put another way: MS4 permittees have not had the opportunity to implement TMDLs, other than trash, through the MS4 permit. There has been nothing, therefore, to iterate.

And while federal stormwater regulations do not specifically reference the adaptive/iterative process, the State Board has stated in a precedent-setting order that the iterative process is to be followed in MS4 permits. In State Water Board Order WQ 2001-15 (BIA) the board asserted: ... *we will generally not require 'strict compliance' with water quality standards through numeric effluent limitations," and instead "we will continue to follow an iterative approach, which seeks compliance over time" with water quality standards.*[16] This explains why most MS4s permits in California adopted by other Regional Board contain a reference to an iterative process.

5. ***TMDL Should Not Require Permittees to Conduct Monitoring Outside Their MS4s***

The DC/Harbor Toxics TMDL requires fish tissue, water column, and sediment testing. All of these monitoring-related tasks are extra-MS4 systemic. Federal stormwater regulations [(§122.26(d)(2)(iii)] require intra-MS4 system monitoring, from the outfall/end-of-pipe – not outside of it. Should the Regional Board insist that permittees perform these extra-federal monitoring tasks, including reporting, it will need to comply with CWC §13267.

6. ***TMDL Monitoring Outside Their MS4s Constitutes an Unfunded Mandate Under the California Constitution***

Fish tissue, sediment, and water column monitoring are not required under the federal stormwater regulations for compliance purposes. The Regional Board can compel extra-federal regulatory monitoring, but it will have to rely on the State's water code, which would, therefore, constitute an unfunded mandate under the California Constitution.

[16] *State Water Resources Control Board, Order WQ 2009-0008,* August 4, 2009, page 8.

7. ***The DC/Harbor Toxics TMDL Inappropriately Requires MS4 Permittees to Pay for Removal or Containment of Contaminated Sediment in the Harbors and Should Be Revised or Clarified to Eliminate this Possible Interpretation***

The DC/Harbor Toxics TMDL references dredging and capping as a means of remediating contaminated sediment in the harbors. Some have suggested that the Port of Los Angeles and Long Beach will be primarily responsible for performing this task. However, the DC/Harbor Toxics TMDL contains language that could be interpreted to mean that MS4 permittees – including those that are situated in the Los Angeles and San Gabriel Rivers – will be required to share the cost. MS4 permittees could be required to meet waste load allocations in this TMDL. If the WLAs are not met, affected permittees could be found in violation and could be compelled to fund remediation. This could be achieved through the next MS4 permit by requiring absolute compliance with WLAs – as it had with the Santa Monica Bay Beaches Dry Weather Bacteria TMDL.

It should be noted that the MS4 permit is limited to controlling pollutants in stormwater from the MS4 (to the receiving water) and to prohibiting non-stormwater discharges to the MS4 (not to the receiving water). The MS4 NPDES permit is a point-source permit (see 40 CFR §122.2). Under Clean Water Act section 402 p(iii), *MS4 permits are limited to controls to reduce the discharge of pollutants to the maximum extent practicable, including management practices, control techniques and system, design and engineering methods, and such other provisions as the Administrator or the State determines appropriate for the control of such pollutants.*[17] The MS4 NPDES permit is limited to compliance with water quality standards, including TMDL WLAs), in stormwater at the point of discharge (outfall or at the end-of-pipe) -- not in the receiving water. The MS4 NPDES permit's limitation to controlling discharges at the end of the point source suggests that the Regional Board may, in the alternative, rely on a waste discharge requirement (hereinafter "WDR"), pursuant to the California Water Code (hereinafter "CWC"). If the Regional Board intends to impose the DC/ Harbor Toxics TMDL WLA or an alternative compliance requirement on the City exclusively through a WDR then it must first comply with CWC section 13241. Further, if an MS4 permittee is compelled to pay a share of cost associated with remediating contaminated sediment in the harbors an argument could be effectively made that such a requirement constitutes an unfunded mandate under the California Constitution.

8. ***Request for 45 Public Hearing Notice***

The City fervently hopes that the State Board will recognize the several deficiencies contained the DC/Harbors Toxics TMDL and returns it to the Regional Board for correction without the need for a State Board hearing. If, however, the State Board

[17] *See CWA 402 p(iii).*

wishes to review the matter at a public hearing, the City requests that it be given 45 days of advanced notice.

In closing the City appreciates the opportunity to comment on this extremely important matter and looks forward to its amicable resolution. In the meantime, should you have any questions, please feel free to call me.

Sincerely,

Earl Schwartz

Earl Schwartz, P.E.
Acting Director of Public Works, City Engineer

ES/jh.

Cc: Steve Mandoki, City Manager
Marlene M. Miyoshi, Director of Public Works