



April 8, 2009

Via electronic mail

Ms. Carole H. Beswick and Members of the Board  
Santa Ana Regional Water Quality Control Board  
3737 Main Street, Suite 500  
Riverside, CA 92501-3348

**Re: *Draft NPDES Stormwater Permit for the County of Orange, Tentative Order No. R8-2009-0030***

Dear Chair Beswick and Members of the Board:

We write on behalf of the Natural Resources Defense Council (“NRDC”) and Orange County Coastkeeper (“Coastkeeper”). We have reviewed Tentative Order No. R8-2009-0030, NPDES Permit No. CAS618030—the latest draft of the Waste Discharge Requirements for the County of Orange, Orange County Flood Control District and The Incorporated Cities of Orange County within the Santa Ana Region Areawide Urban Storm Water Runoff NPDES Permit, released on March 25, 2009 (“Tentative Order”). We appreciate the opportunity to submit the following comments on the Tentative Order.

**I. Introduction.**

NRDC and Coastkeeper are concerned that the Tentative Order still requires clarification and improvement of key provisions. The Tentative Order, as currently written, is headed in the right direction but does not yet ensure that pollution from stormwater runoff will be reduced to the maximum extent practicable (“MEP”) or to meet water quality standards. These concerns are reflected especially in the Tentative Order’s low impact development (“LID”) provisions, which require clearer articulation of a specific performance standard and certain delineation on when and how alternative compliance measures can be implemented. As we have indicated in previous comment letters, we strongly support LID because it is the most effective means of addressing the water quality and quantity problems associated with urban runoff, and believe that LID techniques are required by the Clean Water Act’s MEP standard for pollution reduction because of their practicability, low cost, and superior performance relative to conventional BMPs. Currently, the Tentative Order’s language needs to be tightened to

ensure the proper implementation of LID practices, which we think can be accomplished with important but discrete edits (which we have attached in the form of a redline of relevant LID language now contained in the Tentative Order).

The need to clarify the LID section of the Tentative Order is reinforced by other Clean Water Act requirements which are not adequately implemented currently by the provisions of the Tentative Order (which we address starting in Section III of this letter). The Tentative Order fails to adequately implement the Clean Water Act's ("CWA") requirement that permits incorporate TMDL waste load allocations ("WLAs") as enforceable permit limitations, as well as critical CWA requirements with regard to prohibitions against new sources or new dischargers of pollutants to impaired waterbodies and the discharge of non-stormwater to the MS4 system. Each of these problem areas highlights not only the need to revise the Tentative Order to bring it into accord with the requirements of federal law, but also the need to ensure that the Tentative Order's New Development requirements practicably maximize pollution control to enable the Tentative Order overall to adequately condition the discharge of water pollution to waters of the United States consistent with all relevant provisions of the CWA.

## **II. The New Development Section of the Tentative Order Requires Revision to Effectuate Regional Board Staff's Intent and to Meet the MEP Standard.**

The New Development (Including Significant Re-Development) section ("New Development section") is particularly critical for addressing the root causes of stormwater pollution, which is why we have focused significant attention in our comments here and in our previous letter<sup>1</sup> on these requirements. As the U.S. Environmental Protection Agency ("U.S. EPA") has noted:

Most stormwater runoff is the result of the man-made hydrologic modifications that normally accompany development. The addition of impervious surfaces, soil compaction, and tree and vegetation removal result in alterations to the movement of water through the environment. As interception, evapotranspiration, and infiltration are reduced and precipitation is converted to overland flow, these modifications affect not only the characteristics of the developed site but also the watershed in which the development is located. Stormwater has been identified as one of the leading sources of pollution for all waterbody types in the United States. Furthermore, the impacts of stormwater pollution are not static; they usually increase with more development and urbanization.<sup>2</sup>

---

<sup>1</sup> Letter from NRDC to Santa Ana Regional Water Quality Control Board re: Comments on Draft Order R8-2008-0030 (February 13, 2009) ("February 13<sup>th</sup> Letter").

<sup>2</sup> U.S. Environmental Protection Agency (December 2007) *Reducing Stormwater Costs through Low Impact Development (LID) Strategies and Practices*, at v.

Our concerns with the New Development section fall into the following three main categories:<sup>3</sup>

- The Tentative Order’s performance requirement for the implementation of LID needs clarification;
- The public must be involved in decisions related to the permittees’ establishment of critical standards and plans that implement the Tentative Order; and
- The Regional Board must clarify and limit the Tentative Order’s alternative compliance provisions so that they meet the MEP standard and are based on scientific, not anecdotal, considerations.

**A. The Tentative Order’s Performance Requirement for the Implementation of LID BMPs Needs Clarification to Meet the MEP Standard and Effectuate Regional Board Staff’s Apparent Intent.**

While we continue to support an effective impervious area (“EIA”) limitation as a performance standard for implementing LID BMPs, we can also support a technically equivalent alternative standard, which would ensure that the permit in fact reduces stormwater pollution to the maximum extent practicable. In the Tentative Order, Regional Board staff have eliminated the EIA standard and have created, instead, what appears to be an onsite retention-based standard. (*See* Tentative Order ¶¶ XII.C.2 through XII.C.5.) In concept, we believe that this standard (as encapsulated in provision XII.C.5) could accomplish the same objectives as the EIA limitation that we have advocated and supported in other locations within California through the work of Dr. Richard Horner.<sup>4</sup> The wording and structure of the Tentative Order, however, are not entirely clear, and certain revisions are needed to properly implement the new volumetric retention standard and to ensure that the Tentative Order meets the MEP standard.<sup>5</sup>

The necessity of including strong, numeric performance standards for post-construction stormwater BMPs has become evident across the country. As we mentioned

---

<sup>3</sup> We have submitted a redline of the Tentative Order’s New Development section and recommend that the Regional Board implement these revisions to clarify the permit’s requirements and ensure that it meets the MEP standard.

<sup>4</sup> *See* NRDC, February 13<sup>th</sup> Letter.

<sup>5</sup> In this vein, we note that the Tentative Order’s findings highlight the extent to which a lack of clarity and specificity has led to lackluster results and poor implementation of effective stormwater management BMPs. *See* Tentative Order findings 64 and 71.

in our February 13<sup>th</sup> Letter, agencies from the U.S. EPA to the California Ocean Protection Council and the State Water Resources Control Board have studied and advocate such standards. Indeed, the U.S. EPA recently commented on the draft San Francisco Bay regional stormwater permit and reiterated the need for a **“clear, measureable performance standard to require landscape-based treatment, on-site retention, and/or storage for re-use,”** even threatening to “consider objecting to the permit” if the San Francisco Regional Board does not include “additional, prescriptive requirements” in the permit.<sup>6</sup> Given this emphasis on capturing and infiltrating, harvesting, or evapotranspiring stormwater onsite, we believe that retention of the design storm volume is necessary to meet the MEP standard. With the revisions outlined below, the Tentative Order’s performance standard will implement EPA’s recommendations for clear metrics and be similar to—if somewhat less stringent than—the other examples from around the country that we cited in our February 13<sup>th</sup> Letter.<sup>7</sup>

First, the Low Impact Development section (provision XII.C) should, at the outset, set forth the performance requirement for LID BMPs so that this critical metric clearly applies to the implementation of post-construction stormwater management BMPs. In the redline that we are submitting with this letter, we have distilled (as provision XII.C.2) the onsite volumetric retention requirement that is evidently intended for implementation through the various provisions of this section. We have clarified that, as currently described in provision XII.C.5 (which, along with provision XII.C.4, we eliminated and made part of provision XII.C.2), permittees must require onsite retention of the design storm volume through infiltration, evapotranspiration, or harvesting and reuse. We have also more explicitly linked the Tentative Order’s Alternatives and In-Lieu Programs section (XII.E) to the performance requirement by noting that any portion of the design storm volume not retained onsite must be mitigated elsewhere, while any surface runoff up to the design storm volume must be treated with LID or conventional BMPs before discharge. These revisions reflect comments of the U.S.EPA, which has stated that “in order to incorporate clear, enforceable, LID requirements” in permits, the permit should “clarify that regulated projects must utilize LID design elements to ensure onsite management of stormwater” without the use of “qualifiers such as ‘to the extent feasible and ‘as practicable,’” and that “[a]ny runoff that is not managed by these LID

---

<sup>6</sup> Letter from Douglas E. Eberhardt, U.S. EPA, to Dale Bowyer, San Francisco Regional Water Quality Control Board (April 3, 2009), at 1 (emphasis added).

<sup>7</sup> We are enclosing a relevant study recently conducted by Dr. Horner, which compares evaporation potential and rainfall in various locations around the country that have implemented onsite retention standards similar to the standard in the Tentative Order. Dr. Horner’s research demonstrates that these national standards are equally applicable to Southern California and, in fact, Southern California has relatively better opportunities to practicably implement stringent LID requirements because of its favorable rainfall pattern.

design elements must be addressed” by offsite, equivalent or in-lieu provisions.<sup>8</sup> The Tentative Order suggests this structure, and we have made it clear.

Second, the hierarchy for LID implementation (provision XII.C.7) should clarify that evapotranspiration BMPs are an acceptable means of meeting the performance standard. LID features, such as green roofs, frequently result in considerable evapotranspiration, and these options should not be precluded since they allow developers additional flexibility in meeting the performance standard while preventing pollutants from entering receiving waters.

The Tentative Order, and our advocacy for LID practices that retain stormwater onsite through infiltration, harvesting and reuse, or evapotranspiration, thus ensuring that pollutant loads do not reach receiving waters, is most consistent with LID principles and goals. Others have advanced interpretations of “LID” that include the use of treat-and-discharge systems, but these systems are not as effective as retention practices because the discharged water may still contain pollution, even if it is attenuated. Our interpretation of “LID” is consistent with the U.S. EPA’s: “LID comprises a set of approaches and practices that are designed to reduce runoff of water and pollutants from the site at which they are generated. By means of infiltration, evapotranspiration, and reuse of rainwater, LID techniques manage water and water pollutants at the source and thereby prevent or reduce the impact of development on rivers, streams, lakes, coastal waters, and ground water.”<sup>9</sup>

**B. Various Provisions in the New Development Section Fail to Specify that the Public Must Have an Opportunity to Review and Comment on Documents that Implement Critical Aspects of the Tentative Order.**

The Tentative Order appropriately requires Regional Board approval for many of the documents that the permittees will have to create to implement critical aspects of the Tentative Order. We generally object to the approach of deferring key aspects of the Permit to the future as we believe it is not permissible under the Clean Water Act. However, at bare minimum, the public must be meaningfully involved in the approval process of any deferred programmatic element because the effectiveness of the Tentative Order will be determined in large part through the various documents and as yet undeveloped programs required by the Tentative Order. *Environmental Defense Center, Inc. v. U.S. E.P.A.* highlights the legal necessity of meaningful regulatory entity review and public involvement during the process of establishing stormwater requirements. ((9th Cir. 2003) 344 F.3d 832.) “[S]tormwater management programs that are designed

---

<sup>8</sup> Letter from Douglas E. Eberhardt, U.S. EPA, to Dale Bowyer, San Francisco Regional Water Quality Control Board (April 3, 2009), at 2.

<sup>9</sup> U.S. Environmental Protection Agency (December 2007) *Reducing Stormwater Costs through Low Impact Development (LID) Strategies and Practices*, at iii.

by regulated parties must, in every instance, be subject to meaningful review by an appropriate regulating entity . . . Congress identified public participation rights as a critical means of advancing the goals of the Clean Water Act in its primary statement of the Act's approach and philosophy.” (*Id.* at 856.)

To effectuate this purpose of the CWA, we have suggested in our redline various revisions to allow for public participation whenever the permittees are required to submit critical documents and plans to the Regional Board for approval. The provisions in question are: (1) the update of the WQMP (provision XII.C.1); (2) the creation of Watershed Master Plans (provision XII.D.5); (3) the technical infeasibility criteria (provision XII.E.1); (4) the waiver system permitted by provision XII.E.1; and (5) the “water quality credit system” pursuant to provision XII.E.4. These provisions relate to the establishment of requirements that play a central role in determining how effectively the permit will reduce stormwater pollution. Without allowing the public to participate in the development of these documents and plans, the public will be precluded from meaningful involvement in setting the criteria that govern the permittees’ implementation of the Tentative Order’s broad requirements.

In addition, some of these provisions, particularly the water quality credit provisions, are new and require a much better factual basis since they have the potential to significantly impact the level of water quality control. The creation of such a program is not merely an administrative detail that can be left to development by permittees. We believe, for this reason, that the credit system should be deleted and deferred until the Regional Board has developed additional information and clearer, technically-based support for the structure of such a program. This is particularly true because the watersheds regulated by the Tentative Order contain impaired waters, which draws into question the legality of a credit system.

**C. The Tentative Order Needs to Clarify, Impose Limitations on, and Better Integrate the Alternatives and In-Lieu Programs Section.**

While NRDC and Coastkeeper support the concept of allowing equivalent alternative compliance (through offsite mitigation or in-lieu payments for public stormwater mitigation projects) in situations of technical infeasibility, the Tentative Order’s alternative compliance provisions currently do not include the necessary clarity and limitations. Additionally, the other provisions of the New Development section must reference the alternative compliance provisions wherever they come into play so as to delineate clearly the interplay between relevant provisions. As explained in our previous comment letter, certain revisions are required.<sup>10</sup>

Accordingly, we have redlined this section to address concerns related to: (1) clarifying that the “urban runoff fund” is intended to collect in-lieu payments from developments that are granted waivers for technical infeasibility and that do not

---

<sup>10</sup> NRDC February 13<sup>th</sup> Letter, at 6-8.

undertake their own offsite mitigation projects; (2) specifying that developments receiving waivers must achieve, in the aggregate, equivalent or greater pollution reduction compared to onsite implementation of the required BMPs; (3) preventing “water quality credits” from exceeding 33% of the volumetric retention requirement of provision XII.C.2 (in our renumbering); (4) ensuring that any credits granted are based on scientific evidence demonstrating that the developments eligible for credits in fact result in absolute reduction of stormwater pollution as a result of the factor(s) that make them eligible for credits; and (5) the credits are proportional to those watershed benefits. These revisions are critical to ensure that the permittees properly implement the alternative compliance provisions and actually reduce pollution to the maximum extent practicable and meet water quality requirements.

#### **D. Additional Structural Concerns.**

In our February 13<sup>th</sup> letter, we identified additional LID-related provisions that were in need of revision. Not all of these concerns have been addressed, including: the Tentative Order’s exemption of projects from hydromodification requirements based on whether they discharge to certain types of channels; the Tentative Order’s prohibition of infiltration devices where seasonal high groundwater is within 10 feet of the bottom of the device; and inconsistency in the language of the applicability provision that governs redevelopment projects. We reiterate these concerns here and urge the Regional Board to revise the Tentative Order accordingly.

We also note the following concerns, which require clarification in the Tentative Order.

First, provision XII.C.6 mentions that “the LID principles could be integrated into other programs, such as: Smart Growth, New Urbanism or regional or sub-watershed management approaches.” (Tentative Order ¶ XII.C.6.) While the Tentative Order discusses regional or sub-watershed management approaches, it never explains how smart growth or new urbanism concepts could accommodate the LID principles outlined in the Tentative Order. As the Tentative Order currently reads, the permittees could potentially misunderstand their obligation to implement LID requirements and misconstrue generic attempts to pursue compact growth as alleviating their need to comply with this Board’s permit requirements.

Second, the New Development section’s applicability criteria (XII.B.2) do not clearly identify an overall, “catchall” category for new development projects that are subject to the Tentative Order’s requirements. We have inserted the corresponding provision from the San Francisco Bay region draft stormwater permit and deleted provisions that were redundant vis-à-vis this new provision. This change is necessary to ensure that the Tentative Order clearly identifies the overall applicability of the New Development section’s requirements to new development itself.

**III. The Tentative Order Fails to Explicitly State that Waste Load Allocations From Applicable TMDLs Must be Enforceable Permit Limitations.**

TMDLs represent numerical calculations of the maximum amount of a pollutant that a waterbody impaired under section 303(d) of the CWA can receive and still meet water quality standards, and TMDLs allocate that amount of pollution to discharges from the pollutant's sources. TMDLs establish WLAs—or the maximum amount of a pollutant that each point source discharger may release into a particular waterway—which constitute a form of water quality-based effluent limitation. (See 33 U.S.C. 1313(d)(4)(A); 40 C.F.R. § 130.2.) Once a TMDL has been adopted, NPDES permits are required to include WLAs and contain effluent limitations and conditions consistent with the assumptions and requirements of the TMDL from which they are derived. (40 C.F.R. § 122.44(d)(1)(vii)(B).)

The Tentative Order incorporates numeric WLAs for TMDLs applicable to the permittees in Section XVIII. TMDLs for nutrients, fecal coliform, sediment, and diazinon and chlorpyrifos, are currently in the implementation phase for Newport Bay or San Diego Creek. Numerous other TMDLs established by either U.S. EPA or the Regional Board have been developed but are not yet subject to implementation plans. (See Tentative Order ¶ XVIII.B.1.)<sup>11</sup>

While the Tentative Order states that permittees “shall comply” with allocations for established TMDLs,<sup>12</sup> and that for all TMDLs except sediment in Newport Bay, a “compliance determination is based on monitoring within the receiving waters,” we are concerned that the permit appears to allow permittees to “comply with established TMDL wasteload allocations specified for urban runoff and/or storm water by implementing the necessary BMPs.” While the Regional Board argues that implementing BMPs may serve as a means of achieving WLAs, U.S. EPA policy requires that a permit “demonstrate that the BMPs are expected to be sufficient to comply with the WLAs.”<sup>13</sup> There is nothing in

---

<sup>11</sup> Implementation plans are currently being developed for TMDLs for metals, organochlorine compounds, and selenium in San Diego Creek and Newport Bay; Metals in the Rhine Channel; and copper, lead, and zinc in Coyote Creek. (Tentative Order ¶ XIII.B.1.)

<sup>12</sup> See, e.g., Tentative Order Section XVIII (“permittees in the Newport Bay Watershed shall comply with the EPA-promulgated wasteload allocations” for metals and organochlorine compounds in San Diego Creek, Newport Bay, and the Rhine Channel); *id.* (“The permittees in the Newport Bay Watershed shall comply with the WLAs for” organochlorine pesticides, water column targets, and toxicity requirements for San Diego Creek and Newport Bay); *id.* (permittees shall comply with WLAs for diazinon or chlorpyrifos in Newport Bay and San Diego Creek).

<sup>13</sup> Letter from Douglas E. Eberhardt, U.S. EPA, to Dale Bowyer, San Francisco Regional Water Quality Control Board (April 3, 2009), at 6.

the Tentative Order or its supporting documents to demonstrate that the management practices it requires will result in compliance with the WLAs, or even that the management practices were designed to do so, or address specific pollutants of concern, in the first place. The U.S. EPA has pointed out that “given the uncertainties in the performance of many of the BMPs commonly used for stormwater pollution control, it is often difficult to make such a determination.”<sup>14</sup> Thus, the Tentative Order must explicitly state that implementation of the BMPs it mandates does not in itself constitute compliance with the WLAs. Effectively, the permit should “explicitly state that the wasteload allocations (WLAs) established by . . . TMDLs are intended to be enforceable permit effluent limitations and that compliance is a permit requirement.”<sup>15</sup> Finding 52 of the Tentative Order discussing TMDL implementation should be revised accordingly, and the Tentative Order’s provisions implementing TMDLs amended as a whole to address these concerns.

**IV. The Tentative Order Allows the Discharge of Pollutants from New Dischargers and Sources.**

Approval of the Tentative Order will authorize the discharge of pollutants to impaired waterbodies from “new sources” or “new dischargers” in violation of the CWA’s implementing regulations. 40 C.F.R. § 122.4(i) explicitly prohibits discharges from these sources, stating that:

No permit may be issued:

... (i) To a new source or a new discharger, if the discharge from its construction or operation will cause or contribute to the violation of water quality standards. The owner or operator of a new source or new discharger proposing to discharge into a water segment which does not meet applicable water quality standards or is not expected to meet those standards ... and for which the State or interstate agency has performed a pollutants load allocation for the pollutant to be discharged, must demonstrate, before the close of the public comment period, that:

(1) There are sufficient remaining pollutant load allocations to allow for the discharge; and

(2) The existing dischargers into that segment are subject to compliance schedules designed to bring the segment into compliance with applicable water quality standards.

---

<sup>14</sup> *Id.*

<sup>15</sup> Letter from Douglas E. Eberhardt, EPA, to Michael Adackapara, Santa Ana Regional Water Quality Control Board (February 13, 2009), at 3.

(40 C.F.R. § 122.4(i).) Under 40 C.F.R. § 122.2, a “new discharger” is defined as “any building, structure, facility, or installation: (a) From which there is or may be a ‘discharge of pollutants;’ . . . (c) Which is not a ‘new source;’ and (d) Which has never received a finally effective NPDES permit for discharges at that ‘site.’” (40 C.F.R. § 122.2.) A “new source” is defined as “any building, structure, facility, or installation from which there is or may be a ‘discharge of pollutants . . .’” that may be subject to applicable standards of performance under section 306 of the Clean Water Act. (40 C.F.R. § 122.2.) Thus, the Tentative Order may not authorize the development or redevelopment of any building or structure, including, without limitation, a new subdivision, industrial facility, or commercial structure within the permittees’ jurisdiction if runoff from the new discharge adds any pollutant to discharges from the MS4 that “will cause or contribute to the violation of water quality standards” for a waterbody impaired for that pollutant. Furthermore, the applicant for the permit must prove the availability of any exception to this provision, as set forth above.

In *Friends of Pinto Creek v. U.S. E.P.A.*, the Ninth Circuit Court of Appeals vacated an NPDES permit issued by the U.S. Environmental Protection Agency to a new discharger on the grounds that the permittees’ “discharge of dissolved copper into a waterway that is already impaired by an excess of the copper pollutant” would violate the CWA. ((9th Cir. 2007) 504 F.3d 1007, 1011.) Citing to 40 C.F.R. § 122.4(i), the court stated that “The plain language of the first sentence of the regulation is very clear that no permit may be issued to a new discharger if the discharge will contribute to the violation of water quality standards.” (*Id.* at 1012.) The court noted that a single exception to this rule exists where a TMDL has been performed, and the “new source can demonstrate that, under the TMDL, the plan is designed to bring the waters into compliance with applicable water quality standards.” (*Id.*) Thus, where no TMDL has been completed for a specified waterbody and pollutant, new discharges that add pollutants that will cause or contribute to a violation of water quality standards are prohibited absolutely. Further, the court in *Friends of Pinto Creek* observed that unless a TMDL explicitly provides that existing discharges into the impaired waterbody are “subject to *compliance schedules* designed to bring the segment into compliance with applicable water quality standards,” issuance of a permit for new discharge was also prohibited under 40 C.F.R. § 122.4(i). (*Id.* at 1013.) In effect, a permit for new discharges may not be issued, even when a TMDL for the relevant pollutant exists, unless it firmly establishes that “there are sufficient remaining pollutant load allocations under existing circumstances.” (*Id.* at 1012.) For the reasons set forth below, under the holding in *Friends of Pinto Creek*, the Regional Board is prohibited from approving a permit that allows new sources or discharge of any pollutant to waterbodies already impaired by that pollutant, unless the Tentative Order demonstrates that an existing TMDL specifically provides sufficient waste load allocations for the discharge.

The Tentative Order states that “The 2006 State water quality assessment listed a number of waterbodies within the Region under Section 303(d) as impaired waterbodies,”

(Tentative Order finding 40),<sup>16</sup> and that “[f]or many of these impaired waterbodies, one of the listed causes of impairment is urban runoff.” (*Id.*) Among waters under the permittees’ jurisdiction the Tentative Order specifically identifies the following as listed as impaired by urban runoff:

- San Diego Creek, Reach 1 (listed for toxaphene, selenium, fecal coliform, nutrients, pesticides, sediment/siltation);
- San Diego Creek, Reach 2 (listed for metals, nutrients, sediment/siltation, unknown toxicity);
- Upper Newport Bay Ecological Reserve (listed for sediment toxicity, metals, copper, chlordane, PCBs, DDT, nutrients, pathogens, pesticides, sediment/siltation);
- Lower Newport Bay (listed for chlordane, copper, DDT, sediment toxicity, PCBs, nutrients, pathogens, pesticides);
- Anaheim Bay (listed for nickel, dieldrin, sediment toxicity, PCBs);
- Huntington Harbour (listed for copper, lead, nickel, chlordane, pathogens, PCBs, sediment toxicity);
- Santiago Creek, Reach 4 (listed for salinity, TDS, chlorides);
- Seal Beach (listed for enterococcus, PCBs);
- Silverado Creek (listed for pathogens, salinity, TDS, chlorides);
- Rhine Channel (listed for copper, lead, mercury, zinc, sediment toxicity, PCBs);
- Peters Canyon Channel (listed for DDT, toxaphene);
- Los Trancos Creek (Crystal Cove Creek) (listed for total and fecal coliform);
- Huntington Beach State Park (listed for enterococcus, indicator bacteria, PCBs);
- Bolsa Chica State Beach (listed for copper and nickel);
- Buck Gully Creek (listed for total and fecal coliform); and
- Balboa Beach (listed for dieldrin, DDT, PCBs).

(Tentative Order finding 40.) The Tentative Order fully acknowledges that the pollutants listed as impairing these waterbodies are known contaminants within stormwater in the Santa Ana Region, and that “Monitoring data indicate that storm water and dry weather urban runoff continue to have pollutants at levels that could cause or contribute to exceedances of water quality objectives in the receiving waters.” (Tentative Order finding 31.) Notably, “The annual reports submitted by the permittees indicate that urban runoff is still causing or contributing to water quality standards violations” for both wet and dry weather conditions. (Tentative Order finding 32.) The 2006 Report of Waste Discharge for the permittees demonstrates that California Toxics Rule criteria are exceeded for metals, which may include copper, nickel, and zinc, are exceeded in both wet and dry weather conditions.<sup>17</sup>

---

<sup>16</sup> See also, 2006 CWA Section 303(d) List of Water Quality Limited Segments.

<sup>17</sup> Orange County Watershed and Coastal Resources Division (July 21, 2006) Report of Waste Discharge, at 11-10 – 11-12.

These findings are further borne out by research that has consistently “identified stormwater runoff as a major contributor to water quality degradation in urbanizing watersheds.”<sup>18</sup> Studies have repeatedly shown that “Stormwater runoff typically contains dozens of pollutants that are detectable at some concentration,” including “sediment, nutrients, metals, hydrocarbons, bacteria and pathogens, organic carbon, MTBE, pesticides, and deicers.”<sup>19</sup> In particular, studies show that “zinc, copper and cadmium pollution [were] found in urban runoff;”<sup>20</sup> that “[m]icrobial pollution” such as bacteria, protozoa, and viruses “is almost always found in stormwater runoff;”<sup>21</sup> that “cars and other vehicles contributed 75 percent of the total copper load to the lower San Francisco Bay through runoff;”<sup>22</sup> and that “insecticides such as diazinon and malathion were commonly found in surface water and stormwater in urban areas ... with urban runoff being the primary transport mechanism into urban streams.”<sup>23</sup>

New discharges will only increase the mass of these pollutants entering impaired receiving waters. In fact, the Tentative Order explicitly acknowledges that “[u]rban development increases population density and pollutant sources such as construction activities, industrial facilities, auto emissions, wastes related to automobile maintenance activities, sanitary wastes, pesticides, pet wastes, household hazardous wastes and trash.” (Tentative Order finding 54.) The U.S. EPA echoes these conclusions, stating that “the impacts of stormwater pollution are not static; they usually increase with more development and urbanization.”<sup>24</sup>

As no TMDLs have been adopted and fully implemented as yet to address water quality impairments formally identified by the Regional Board and U.S. EPA and caused

---

<sup>18</sup> Earl Shaver et al. (2007) *Fundamentals of Urban Runoff Management: Technical and Institutional Issues*, North American Lake Management Society, at 3-46.

<sup>19</sup> Center for Watershed Protection (March 2003) *Impacts of Impervious Cover on Aquatic Systems*, at 55.

<sup>20</sup> Earl Shaver et al. (2007) *Fundamentals of Urban Runoff Management: Technical and Institutional Issues*, North American Lake Management Society, at 3-48.

<sup>21</sup> *Id.* at 3-49.

<sup>22</sup> NRDC, *Stormwater Strategies: Community Responses to Runoff Pollution*, at Chapter 2, available at <http://www.nrdc.org/water/pollution/storm/stoinx.asp>.

<sup>23</sup> Earl Shaver et al. (2007) *Fundamentals of Urban Runoff Management: Technical and Institutional Issues*, North American Lake Management Society, at 3-54.

<sup>24</sup> U.S. Environmental Protection Agency (December 2007) *Reducing Stormwater Costs through Low Impact Development (LID) Strategies and Practices*, at v.

by many pollutants, including certain organochlorine compounds in San Diego Creek and Newport Bay, and metals, bacteria, PCBs, and pesticides in other Santa Ana region waterbodies,<sup>25</sup> any new discharge of these pollutants from increased urbanization would violate the terms of 40 C.F.R. § 122.4(i) and the court’s holding in *Friends of Pinto Creek*. Such discharges are prohibited.

Even where TMDLs have been adopted and have implementation plans in effect for the Santa Ana Region, such as for sediment, fecal coliform, diazinon and chlorpyrifos, and nutrients for the Newport Bay watershed or San Diego Creek, following the court’s holding in *Friends of Pinto Creek*, a permit allowing new dischargers or sources of these pollutants could be approved and issued only in the event that the applicable TMDL explicitly establishes that: (1) existing discharges into the impaired waterbody are “subject to *compliance schedules* designed to bring the segment into compliance with applicable water quality standards;” and (2) additional allocations are available for the specified waterbody. (*Friends of Pinto Creek*, 504 F.3d at 1013.) The Tentative Order does not establish that such allocations exist and are available. As a result, new discharges of these or other contaminants for which a TMDL has been established to impaired waterbodies are prohibited.

We stress that these concerns highlight the need for the Tentative Order to contain both clearly articulated performance standards for LID-based retention of storm water onsite and strict limitations on the use of alternative compliance measures in order to address water quality problems associated with urban runoff. One critical means of ensuring that runoff from new sources or dischargers will not contribute additional pollutants to an impaired waterbody is to mandate the proper implementation of LID practices through the imposition of either an EIA standard or an equivalent onsite-retention standard.

**V. The Tentative Order Fails to Include Provisions that Effectively Prohibit all Non-Stormwater Discharges, as Required by the Clean Water Act.**

Federal law requires that MS4 permits “shall include a requirement to effectively prohibit non-stormwater discharges into the storm sewers.” 33 U.S.C. § 1342(p)(3)(B)(ii). However, the Tentative Order states that certain types of non-storm discharges are “exempt” from this requirement “unless such discharges are identified either by the permittees or by the Executive Officer as a significant source of pollutants.” (Tentative Order ¶ III.3.i.) This exception violates the clear language of the CWA and its implementing regulations. Section 402(p)(3)(B)(ii) of the CWA requires that permits for discharge from municipal sewers “effectively prohibit non-stormwater discharges,” 33 U.S.C. § 1342(p)(3)(B)(ii), and does not create any authorization for exemption of such discharges.

---

<sup>25</sup> See, Tentative Order, at 14-15; 2006 CWA Section 303(d) List of Water Quality Limited Segments.

The Tentative Order states that under “Federal regulations, 40 CFR Part 122.26(d)(2)(i)(B),”<sup>26</sup> an MS4 Permit must “prohibit the discharge of non-storm water containing pollutants into the MS4s and to waters of the U.S. unless they are regulated under a separate NPDES permit, or are exempt, as indicated in [the] Discharge Prohibitions.” (Tentative Order finding 68; *see also, id.* ¶ III.1.) Therefore, the Tentative Order claims, certain specified categories of non-storm discharges “need not be prohibited by the permittees unless such discharges are identified either by the permittees or by the Executive Officer as a significant source of pollutants.” However, section 402(p) places a clear, mandatory duty on the permittee to prohibit non-stormwater discharges to the MS4 system. The permittee, or Regional Board, has no discretion to deviate from this requirement. In ascertaining the meaning of a statute, construction must begin with the text. (*Duncan v. Walker* (2001) 533 U.S. 167, 172.) “If there is no ambiguity, then we presume the lawmakers meant what they said, and the plain meaning of the language governs.” (*Day v. City of Fontana* (2001) 25 Cal.4th 268, 272.) There is no ambiguity present in the CWA’s requirement that a permit “effectively prohibit non-stormwater discharges,” and the Tentative Order’s provision of categorical exceptions stands in clear violation of its terms.

Further, the Tentative Order’s attempt to allow exemptions to the prohibition against non-stormwater discharges to MS4 systems is not supported by regulations under 40 C.F.R. § 122.26(d)(2)(iv)(B)(1), as the Tentative Order implies. This provision merely states the circumstances under which a permittee must specifically design a program to prevent certain illicit discharges: “the following category of non-storm water discharges or flows shall be addressed where such discharges are identified by the municipality as sources of pollutants to waters of the United States.” (40 C.F.R. § 122.26(d)(2)(iv)(B)(1).) The cited regulation, providing for an enforcement program to “prevent illicit discharges,” simply does not support the construction, stated in the Tentative Order, that such non-stormwater discharges need not be prohibited. (*See* Tentative Order ¶ III.1.) Even if the regulations allowed some conditional exemption, they do not provide that non-stormwater discharges are permissible when they fall into a specified category and are not “a *significant* source of pollutants.” (Tentative Order ¶ III.3.i (emphasis added).) The regulations explicitly state that the identified non-stormwater discharges “shall be addressed where such discharges are identified by the municipality *as sources of pollutants to waters of the United States*” in any quantity, whether or not it is considered significant. 40 C.F.R. 122.26(d)(2)(iv)(B)(1).

Indeed, the interpretation adopted in the Tentative Order is not found in the plain language of the regulation, and the Order’s provisions place the regulations in direct conflict with the overlying statute. A clear reading of the regulation, and one that elaborates on Section 402(p)(3)(B)(ii) of the CWA rather than contradicting it, is that while non-stormwater discharges must be prohibited by the text of the CWA, illicit discharge enforcement programs need only specifically address the enumerated list of

---

<sup>26</sup> The specific section of the regulations discussing categories of non-stormwater discharges to be addressed is located at 40 C.F.R. § 122.26(d)(2)(iv)(B)(1).

non-stormwater discharges set forth in the regulations where such discharges have been identified as a source of pollutants. As such, we urge the Regional Board to revise the Tentative Order such that it is consistent with both the regulations and the statute they purport to implement.

Even if the permittees were afforded authority under 40 C.F.R. § 122.26(d) to exempt non-stormwater sources from the discharge prohibitions required by the CWA, the Tentative Order unlawfully allows the exemption of non-stormwater discharges in multiple circumstances. Included in the Tentative Order's list of exempt, or conditionally exempt discharges are:

- Discharges from lawn watering and other irrigation runoff from non-agricultural operations;
- Dechlorinated swimming pool discharges;
- Construction dewatering wastes;
- Irrigation water;
- Non-commercial vehicle washing; and
- Other types of discharges identified and recommended by the permittees and approved by the Regional Board.<sup>27</sup>

(Tentative Order ¶ III.3.i-ii.) Of particular concern is the Tentative Order's exemption of irrigation water, and conditional exemption of discharges from lawn watering and other irrigation runoff from non-agricultural operations even though pollutants from these sources are a known, significant source of impairment to waters in the Santa Ana region. A finding that these discharges are "not []sources of pollutants to receiving waters" as required under 40 C.F.R. 122.26(d)(2)(iv)(B)(1), or even that they are not "a significant source of pollutants" as the Tentative Order would set as the standard for discharge under provision III.3.i, is simply unlawful, and would be inconsistent with facts in the record.

First, a non-source of pollutants finding would stand contrary to extensive research that has proved the opposite: studies have consistently shown that non-stormwater discharges from irrigation water or lawn water are a significant source of pollutants for which Santa Ana region waters are impaired. As the Tentative Order duly notes, "Monitoring results have indicated the presence of elevated concentrations of pesticides in storm water runoff from urban areas." (Tentative Order finding 35.) Further, garden use has been identified generally as one of the main sources of pesticides

---

<sup>27</sup> 40 C.F.R. 122.26(d)(2)(iv)(B)(1), which identifies the specific categories of discharge that "shall be addressed," does not include any provision allowing for "Construction dewatering wastes" to be considered as an exception to the requirement that non-storm discharges be prohibited, or for the permittees or Regional Board to identify and exempt "Other types of discharges." These non-stormwater discharges must be prohibited under both the CWA and its implementing regulations.

found in urban streams.<sup>28</sup> Lawns have additionally been identified as a “hot spot” for nutrient contamination in urban watersheds—lawns “contribute greater concentrations of Total N, Total P and dissolved phosphorus than other urban source areas ... source research suggests that nutrient concentrations in lawn runoff can be as much as four times greater than other urban sources such as streets, rooftops or driveways.”<sup>29</sup> Thus, any claim that irrigation water is unequivocally not a source of pollutants to receiving waters cannot be sustained. As a result, this exemption should be removed from the Tentative Order.

Second, to the extent that the Tentative Order purports to utilize the implementation of “public education and water conservation efforts” (Tentative Order ¶ III.3.ii.C), as a means of authorizing the conditional exemption of potentially, or in fact actually, polluted lawn watering and other irrigation runoff water, there has been no showing that the Residential Program measures required by the Tentative Order under Section XI are sufficient to meet the regulatory requirements of the CWA or will ensure that these discharges are not a source of pollutants. The requirements of this section, such as that permittees “evaluate the applicability of programs such as the Landscape Performance Certification Program to encourage efficient water use and to minimize runoff” (Tentative Order ¶ XI.4) are vague and fail to set out any measurable requirement, further underscoring that these provisions are not tantamount to actions that will result in non-stormwater irrigation flows free of pollutants as required under 40 C.F.R. § 122.26(d). The Tentative Order does not provide evidence to support a contention that such measures will either effectively prohibit such discharges or even allow water quality standards to be met. Indeed, they echo proposals that have been introduced in previous permits throughout California and that have been tried—and failed—to prevent impacts to receiving waters from irrigation runoff.<sup>30</sup>

In total, the Tentative Order’s approach does not equal the CWA’s mandate that permittees “effectively prohibit non-stormwater discharges into the storm sewers.”

---

<sup>28</sup> Earl Shaver et al. (2007) *Fundamentals of Urban Runoff Management: Technical and Institutional Issues*, North American Lake Management Society, at 3-54.

<sup>29</sup> Center for Watershed Protection (March 2003) *Impacts of Impervious Cover on Aquatic Systems* at 69; See also, H.S. Garn (2002) *Effects of lawn fertilizer on nutrient concentration in runoff from lakeshore lawns, Lauderdale Lakes, Wisconsin*. U.S. Geological Survey Water-Resources Investigations Report 02-4130. In an investigation of runoff from lawns in Wisconsin, runoff from fertilized lawns contained elevated concentrations of phosphorous and dissolved phosphorous.

<sup>30</sup> See, e.g., Order No. R8-2002-0010 NPDES Permit No. CAS618030, at 32 (“permittees shall develop BMP guidance for the control of those potentially polluting activities not otherwise regulated by any agency including guidelines for the household use of fertilizers, pesticides, herbicides and other chemicals, and guidance for . . . commercial landscape maintenance.”)

(33 U.S.C. § 1342(p)(3)(B)(ii).) Given the overwhelming evidence that pollution from pesticides, nutrients and other contaminants constitutes a serious and ongoing problem in receiving waters under the jurisdiction of the permittees, the conditional exemption of irrigation or lawn watering from prohibitions against non-stormwater discharge violates the clear requirements of the CWA and its implementing regulations.

As with our comments in Section IV, we underscore that these concerns emphasize the need for LID-based onsite storm water retention requirements, since these approaches will reduce non-storm water runoff from new development to zero when properly implemented.

**VI. The Permit Application Is Incomplete for Failure to Include an Assessment of Controls.**

The permit application is significantly incomplete, as it fails to include information required under 40 C.F.R. § 122.26(d)(2) that is necessary to ensure that the selection of controls for reducing the discharge of pollutants is not arbitrary and capricious. A permit application for discharge from a large- or medium-sized MS4 must contain an assessment of controls, including “[e]stimated reductions in loadings of pollutants from discharges of municipal storm sewer constituents from municipal storm sewer systems expected as the result of the municipal storm water quality management program.” (40 C.F.R. § 122.26(d)(2)(v).) Neither the application, the Tentative Order, nor the Fact Sheet includes any required information or other discussion of the amount of pollution that will be reduced through its controls. The approval of the Tentative Order without this information fundamentally violates basic precepts of administrative procedure, not only because required evidence in the record is lacking, but also because the findings and related subfindings in the record are therefore devoid of necessary guideposts as to why and how provisions were included or rejected; the Tentative Order does not provide sufficient evidence to demonstrate that the selected management practices are adequate to meet relevant requirements and water quality standards.

While prior EPA guidance states that, “as a practical matter, *most* first-time permit application requirements are unnecessary for purposes of second round MS4 permit application;” it does not state that all such information is unconditionally unnecessary. (61 F.R. 41698 (emphasis added).) The omitted pollutant reduction estimates represent a fundamentally different type of information from that required by *most* of the other provisions of 40 C.F.R. § 122.26(d)(2), such as identifying already identified “major outfalls,” for which repeating the exercise “would be needlessly redundant,” especially “where it has already been provided and has not changed.” (61 F.R. 41698.) Instead, the required pollutant load reduction estimates are self-evidently relevant to crafting and assessing the core requirements of the new permit. Such estimates are an essential means of determining whether or not the permit will ensure that water quality standards will be met and what improvements can be expected; they are not merely an administrative detail that has no effect on the permit’s functionality. While the Permit purports to require (or at least suggest) that permittees include estimates of

pollutant load reductions in their annual reports (Tentative Order, Monitoring and Reporting Program No. R8-2008-0030, ¶ IV.2.b), this provision for annual reporting does not constitute compliance with the Tentative Order's *application* requirements

This information is further indispensable when, as here, the Tentative Order and the provisions included in it represent a substantial change from the previously adopted 2000 permit.<sup>31</sup> The Tentative Order therefore represents “changed” information, for a permit that will largely determine the level of urban runoff control in most of the Santa Ana region. Given this change, the necessity of basing the Tentative Order on information about its estimated efficacy should be clear, and the tentative Order and application revised to include the required estimates.

**VII. Conclusion.**

We urge the Regional Board to improve the Tentative Order in the ways specified prior to its adoption. We appreciate staff's efforts to date during the adoption process and would be pleased to respond to any questions they may have about our comments.

Sincerely,



David S. Beckman  
Bart Lounsbury  
Noah Garrison  
Natural Resources Defense Council

---

<sup>31</sup> For example, the Tentative Order eliminates the EIA standards present in Order No. R8-2002-0010.