

Construction Industry Coalition on Water Quality

April 9, 2009

Michael Adackapara
Santa Ana Regional Water Quality Control Board
3737 Main Street, Suite 500
Riverside, CA 92501-3348

RE: Order No. R8-2009-0030 (NPDES Permit No. CAS618030) Waste Discharge Requirements for the County of Orange, Orange County Resources and Development Management Department, and the Incorporated Cities of Orange County Within the Santa Ana Region Areawide Urban Storm Water Runoff, Orange County

Dear Mr. Adackapara:

On behalf of the more than 3,000 member companies of the Construction Industry Coalition on Water Quality (CICWQ), we would like to thank the Santa Ana Regional Water Quality Control Board (Regional Board) for the opportunity to offer this public comment on the second Draft Orange County Municipal Separate Storm Sewer System Permit, Tentative Order No. R8-2009-0030 (Draft Permit) released on March 24, 2009. This letter and attachments provide additional, constructive suggestions that we have for the Draft Permit in addition to those we made to the Regional Board on February 13, 2009.

As currently drafted, we cannot support adoption of the permit because certain portions of the language can be misinterpreted to prohibit any discharge of surface water runoff. This is inconsistent with our months of negotiations in which we agreed the private and public development community would maintain the ability to employ a variety of Low Impact Development (LID) best management practices (BMPs). The Regional Board has never suggested that zero discharge of the design capture volume is required to achieve compliance and we trust this is not the intent of the current version of the permit. This requirement runs counter to our understanding of the outcome of the stakeholder discussion process and endorsement of consensus points regarding the flexibility to use the full range of LID BMPs to handle the design storm volume, not just those that hold all the water on-site. And as we point out below, this redefinition of LID and narrow interpretation of LID BMP implementation is not a technically or economically feasible alternative and has serious implications for redefining California water law. We will be following up with additional information for the Regional Boards consideration leading up to the permit hearing scheduled for April 24, 2009.

I. Introduction

CICWQ is comprised of the four major construction and building industry trade associations in Southern California: the Associated General Contractors of California (AGC), the Building Industry Association of Southern California (BIA/SC), the Engineering Contractors Association (ECA) and the Southern California Contractors Association (SCCA). The membership of CICWQ is comprised of construction contractors, labor unions, landowners, developers, and homebuilders working throughout the region and state.

These organizations work collectively to provide the necessary infrastructure and support for the region's business and residential needs. Members of all of the above-referenced organizations are affected by the Draft Permit, as are thousands of construction employees and builders working to meet the demand for modern infrastructure and housing in Orange County. Our organizations support efforts to improve water quality in a cost effective manner. Our comments and suggestions on the Draft Permit as well as our active involvement in the stakeholder group process reflect our commitment to protect water quality while at the same time preserve our member's economic viability in this difficult economic environment. Our membership has invested significant resources into developing sound engineering approaches for Low Impact Development (LID) stormwater management techniques and for hydromodification control, facilitating the appropriate application of these valuable approaches to water quality management. Our comments reflect this commitment to sound engineering practices and consideration of site-specific feasibility considerations.

II. Preliminary Statement

First, we are encouraged that the Regional Board revised Finding No. 62 to address the concerns of the regulated community regarding the utility of using Effective Impervious Area (EIA) limitations as a stand alone Low Impact Development (LID) best management practice (BMP) performance and sizing standard. We are also encouraged that the Regional Board included in Draft Permit Section XII, C. No. 3 a priority LID BMP selection procedure and that water quality mitigation may be achieved by using biotreatment or other vegetated LID BMPs within that priority framework. Despite these changes, we have identified several crucial remaining concerns regarding the specific permit language that appears to further constrict, rather than expand and promote, the use of all types of LID BMPs to their full extent. Moreover, the content in some parts of Section XII, C. following item No. 3 appears to conflict with the priority selection process and suite of available LID BMPs used for water quality mitigation.

The language in the current Draft Permit, while clearly specifying a volume capture approach to sizing LID BMPs, introduces an incorrect definition of LID through restrictive application of BMPs to only those that infiltrate, harvest and use rainwater, and/or evapotranspire all of the captured water (See Draft Permit Section XII, C. Nos. 5 and 7). In other words, permit language now requires that projects would be limited to zero discharge of a design storm volume with no runoff whatsoever allowed.

The US EPA defines LID as follows:

*A comprehensive stormwater management and site-design technique. Within the LID framework, the goal of any construction project is **to design a hydrologically functional site that mimics predevelopment conditions.** This is achieved by using design techniques that infiltrate, **filter**, evaporate, and store runoff close to its source. (emphasis added)*

<http://cfpub1.epa.gov/npdes/greeninfrastructure/information.cfm#glossary> .

Mandating the complete on-site retention of any sizable storm volume (i.e. runoff that never leaves as surface flows) is not a reasonable approach and the Draft Permit attempts in places to redefine the allowable site design elements necessary to implement this concept. The Draft Permit may implement LID in a way that is contrary to the EPA definition of LID by restricting BMPs to those that only achieve zero discharge—not allowing any BMPs that appropriately “filter” runoff, such as bioretention cells or other vegetated LID BMPs. Total, 100-percent retention remains impractical and unwise in most circumstances, and is not a goal that can be achieved for most projects within reasonable costs, despite best efforts. Moreover, such a mandate abandons the goal to mimic predevelopment conditions to the extent practicable, as EPA encourages.

In our prior comment letter, we documented and supported the significant concerns we have with a universal mandate to infiltrate stormwater into the ground and showed the clear limitations on feasibility. Here, we provide, in Attachment 1, a comprehensive analysis done by Geosyntec Consultants of the feasibility of implementing rainfall and stormwater harvesting systems and the utility of these systems in achieving pollutant load reductions from stormwater runoff as compared to use of all types of LID BMP features. This document and follow up correspondence with Geosyntec shows that harvesting alone may result in poor water quality treatment performance relative to a well designed system of LID BMPs that includes all types of BMPs, not just those that capture and retain stormwater. This document also identifies the current institutional barriers--code requirements--that will need to be adjusted long before total rainwater capture systems can be considered feasible in any practical sense.

To CICWQ, the retention BMPs of infiltration, harvesting, and evapotranspiration (“ET”) may be described as a first tier of LID BMPs, but they should not be universally mandated to the exclusion of all other options. As the EPA definition of LID indicates, biofiltration, bioretention, filter strips, and other BMPs based on using vegetation to promote stormwater treatment via filtration are fundamental to LID implementation. These BMPs may be specified as second tier options (although they best mimic pre-development conditions), but project proponents should have considerable discretion to use these BMPs, and should not be required to apply for a feasibility exception to do so.

The use of conventional BMPs (structural treatment installations) as the principal approach for stormwater management should be a last resort, available only when objective infeasibility criteria are satisfied, and when off-site opportunities are not readily available. When LID BMPs are infeasible, and nearby off-site options are not available, the use of conventional BMPs that have been demonstrated to be effective on the pollutants of concern should be a compliance option.

The NGOs assert that the OC MS4 permit is too permissive in its application of LID BMPs or in the volume of water that must be collected. Moreover, they point to other locations around the U.S. where these more constrictive BMP measures are required and where larger volumes of water are presumably collected in them. A review and analysis of the documents referenced by NRDC prepared by Geosyntec Consultants (Attachment 2) shows that in all cases, none of the LID BMP sizing provisions appear in an adopted permit, so the actual utility, practicability, and on the ground

results of the permit conditions remains to be seen. In addition these programs do not: a) generally mandate zero discharge through application of only infiltration or rainfall harvest and use LID BMPs, and b) require large volumes of water (in excess of 1-inch for example) to be collected in infiltration or harvest and use LID BMPs regardless of feasibility. We recognize and appreciate that these programs provide constructive approaches for consideration, yet their direct transfer to permit content for Orange County is inappropriate. Also included for the Regional Boards consideration as Attachment 3 is a critical evaluation requested by the US EPA concerning the content of the Draft Technical Guidance on Implementing Section 438 of the Energy Independence and Security Act. None of the documents cited by NRDC have been adopted for implementation.

CICWQ is supportive of the hydromodification control approach defined in Draft Permit Section XII, D. Hydrologic Conditions of Concern. However, we are very concerned about the language in Section D. 2. (b), as it removes any possible exclusion of a hydrologic condition of concern by limiting exempt conveyance channels to only those that are not waters of the U.S. This is a troublesome change in permit content and one that our membership cannot accept. Our interpretation of this revision is that it disables the LID requirements, including water quality volume mitigation requirements, by expanding the volume of water a project must handle and may render all the good work done on LID BMP selection and sizing irrelevant. We respectfully request a clear waiver process for those projects discharging into channels that are significantly hardened. In our specific comments below we provide alternative permit language.

III. Specific Comments on the Draft Permit

There are several references within *Section XII. New Development Including Significant Redevelopment. C. Low Impact Development to Control Pollutants in Urban Runoff From New Development/Significant Redevelopment* where CICWQ finds the definition of LID BMPs being narrowly interpreted to include only those that infiltrate, harvest and use rainfall, or evapotranspire. Below we identify those areas and suggest alternative language.

Content of Item No. 2. CICWQ suggests editing the third sentence in Item No. 2 as follows (edits underlined):

The design strategy shall be to maintain or replicate, to the extent practicable, the pre-development hydrologic regime through the use of design techniques that create a functionally equivalent post-development hydrologic regime through site preservation techniques and the use of integrated and distributed micro-scale storm water infiltration, retention, detention, evapotranspiration, filtration, and treatment systems as close as possible to the source of runoff.

By changing this sentence, the Regional Board makes clear that the project developer will, to the extent practicable, make all efforts to mimic pre-development hydrologic conditions and that the project developer has in their toolbox all available LID BMPs consistent with the US EPA definition of LID.

Content of Item No. 5. CICWQ suggests changing the content of the first sentence in Item No. 5, as it narrowly defines the conception of allowable LID BMPs for the collection and treatment of the design capture volume and restricts the options available to the project proponent to comply with the provisions of the Draft Permit, Section XII, C. The sentence should be redrafted as follows (edits underlined):

The LID goal shall be to infiltrate, evapotranspire, harvest and beneficially reuse, or filter the design capture volume at the project site unless an infeasibility determination is made using the factors listed in No. 6 below.

Content of Item No. 7. Here again, the language in the second sentence is narrowly defining the range of LID BMPs to those that only infiltrate, harvest and beneficially use rainwater, or evapotranspire runoff at the exclusion of those LID BMPs that use vegetation and other biological treatment means to filter stormwater runoff. The sentence should be redrafted as follows (edits underlined):

If site conditions do not permit infiltration, harvesting and reuse, evapotranspiration, or filtration using biofiltration or bioretention of the design capture volume at the project site as close to the source as possible, the alternatives discussed below and the credits and in-lieu programs discussed under Section E, below, may be considered:

Content of Item No. 7 (a)-(d). The last sentence of each paragraph (a)-(d) reads as follows:

- (a) *The pervious areas to which the runoff from the impervious areas are connected should have the capacity to infiltrate and/or harvest and reuse at least the design capture volume.*
- (b) *The pervious areas which receive runoff from impervious areas should have the capacity to infiltrate and/or harvest and reuse at least the design capture volume.*
- (c) *The pervious areas to which the runoff from the impervious areas are connected should have the capacity to infiltrate and/or harvest and reuse at least the design capture volume.*
- (d) *The pervious areas to which the runoff from the impervious areas are connected should have the capacity to at least the design capture volume from the entire tributary area.*

CICWQ recommends that the sentence read as follows within each subsection (a)-(d) to make it clear that all LID BMPs of variable scale are preferred for collecting and treating the design capture volume:

The pervious areas to which the runoff from the impervious areas are connected should have the capacity to infiltrate, harvest and reuse, or treat at least the design capture volume.

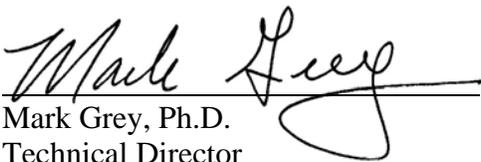
CICWQ, while supportive of the engineering approach to hydromodification control in the Draft Permit, is troubled by the removal of any possible exclusion of a hydrologic condition of concern by limiting exempt conveyance channels to only those that are not waters of the U.S. To our knowledge, most if not all existing hardened conveyance channels in Orange County are considered as being within waters of the U.S. By default, this would require all projects to comply with Section D, Hydrologic Conditions of Concern. We prefer much of the original language contained in the first Draft Permit which reads:

(b) All downstream conveyance channels that will receive runoff from the project are engineered, hardened, and regularly maintained to ensure design flow capacity, and no sensitive stream habitat areas will be affected.

IV. Summary

The second Draft Permit released for Orange County contains significant improvements from the first draft released in November 2008, but concerns on our part remain because of the restrictive language that redefines LID narrowly and removes any possible hydromodification control exemptions. CICWQ respects the difficult decisions the Regional Board must make concerning the sweeping changes this permit introduces for the building industry, yet we must urge you to go beyond the technical arguments presented here and consider the cost and practical feasibility considerations of these new permit provisions (zero discharge mandate) that appear to be wholly unsupported. Given the restrictive conception of LID that the permit introduces, the net result of implementation we believe will fall far short of the Regional Board's expectations because development will be hindered, not enhanced by current permit provisions and water quality will not improve. If you have any questions or want to discuss the content of our comment letter, please feel free to contact me at (909) 396-9993, ext. 252, (909) 525-0623, cell phone, or mgrey@biasc.org.

Respectfully,



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