ORANGE COUNTY WATER DISTRICT
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ORANGE COUNTY'S GROUNDWATER AUTHORITY

February 12, 2015

Ms. Michelle Beckwith
Santa Ana Regional Water Quality Control Board
3737 Main Street, Suite 500
Riverside, CA 92501

Subject: ***Comments on Draft Order No. R8-2015-0001, NPDES Permit No. CAS 618030, National Pollutant Discharge Elimination System Permit and Waste Discharge Requirements, Orange County Flood Control District, the County of Orange and the Incorporated Cities therein within the Santa Ana Region***

Dear Ms. Beckwith:

The Orange County Water District (OCWD) is a special district formed in 1933 to manage the Orange County Groundwater Basin. The basin currently provides approximately two-thirds of the drinking water for 2.5 million residents of north and central Orange County within the District's boundary.

In 1936, OCWD began actively managing recharge of surface water, including stormwater, into the groundwater basin. OCWD operates 30 recharge facilities in the Cities of Anaheim and Orange and unincorporated areas of Orange County. Stormwater capture and recharge provides the equivalent of a year's worth of drinking water for approximately 100,000 families (50,000 acre-feet per year). Given water supply realities in southern California, use of stormwater for groundwater recharge is a key water resources management strategy.

OCWD recognizes the environmental benefits of utilizing the principles of low-impact development (LID) and reducing pollution caused by urban runoff. The District's primary concern regarding the draft order is the management of infiltration from uses of LID BMPs in a manner that protects groundwater from degradation and contamination. Such protection is best accomplished through careful siting and management of LID BMPs utilizing knowledge of potential water quality impacts associated with various land uses within Orange County, site-specific land use conditions, depth to groundwater, and underlying groundwater quality, among other factors.

Please accept the following comments on the draft order R8-2015-0001. Suggested deletions are indicated with cross-outs and additional language indicated with underlines.

1. The existing permit, R8-2009-0030, requires certain groundwater resource protections when utilizing structural infiltration BMPs. These protections listed in Section XII.B.5 include limits on vertical distance from infiltration systems to seasonal high water, minimum horizontal distances from water supply wells, and prohibitions on use of the systems for land uses that pose a high threat to water quality.

It appears that in the Draft 2015 permit, these protections apply only to use of infiltration LID BMPs (Section XII.J) and not to biotreatment control BMPs (Section XII.G). While biotreatment control BMPs typically may not be designed for infiltration, the permit language specifically requires these BMPs to be designed to maximize the infiltration of the design capture volume or flow (page 46 of 90). As the 2015 draft permit requires that all structural treatment control BMPs involve infiltration of stormwater into groundwater, the provisions in Section XII.J related to groundwater should apply to all structural treatment control BMPs.

2. Concerning groundwater agency review of infiltration BMPs, the language in Section XII.J.2 (page 49 of 90) is broad and should be changed to require groundwater management agency review for a more limited number of proposed projects. Suggested language changes are shown below.

> 2. Co-permittees must provide the local groundwater management agency with an opportunity for consultation on the potential impacts of any proposed infiltration LID BMPs <u>that (1) utilize a pipe or conveyance system to direct flow to a subsurface system, such as a dry well or infiltration trench, or (2) surface facilities that infiltrate and have a cumulative area greater than 5,000 square feet per project</u> prior to the approval of the final WQMP. If the agency requests consultation, the Co-permittee must provide the agency with adequate information to review the potential impacts of the BMP on groundwater quality.

3. The existing permit, R-8-2009-0030, requires a 10-foot vertical separation between the bottom of a LID BMP and the seasonal high groundwater level. This provides a buffer to allow for proper functioning of the BMP as well as providing for the protection of underlying groundwater. The draft 2015 permit allows for the reduction of this vertical separation from 10-feet to 5-feet under certain conditions. This reduction should also be conditioned on completion of a site-specific investigation that determines the level of seasonal high groundwater on that particular site. In many cases, the high seasonal groundwater level on a proposed development site is determined based on regional maps or other data from the general area rather than site-specific information. The 10-foot vertical separation requirement provides for a margin of safety to account for cases where high groundwater levels were estimated. Approval of a 5-foot separation should be conditioned on measurements of seasonal high groundwater levels at the project site.

Please change the text in Section XII.J.C (page 49 of 90) as follows:

> The vertical separation from the bottom of the infiltration LID BMPs to the seasonal high groundwater must be a distance of 10-feet or more. ~~Unless~~ If site-specific data are available to determine the level of seasonal high groundwater at the project site and the facility is known to pose a low risk of contaminating groundwater; ~~if the facility is low risk~~, the vertical separation may be reduced to 5 feet according to criteria established in the Co-permittee's written technical guidance. Where the groundwater does not support, or does not have the potential to support beneficial uses, the Co-permittee may approve infiltration LID BMPs with less vertical separation, provided that groundwater quality is maintained and that other potential hazards presented by such facilities can be mitigated to an acceptable level.

4. Section XXII J.5 contains unclear text, perhaps due to a drafting error. Please change the text (page 49 of 90) as follows.

> 5. ~~Where an infiltration LID BMP overlies known groundwater or soil contamination, i~~Infiltration facilities must not be used to infiltrate stormwater in areas that overlie groundwater or soil contamination unless specific studies are done, in coordination with the groundwater management agency, to demonstrate that infiltration would not adversely impact groundwater conditions. Infiltration facilities must not be used for storm water runoff associated with industrial activity, storm water runoff from highways subject to motorized vehicular traffic of 25,000 average annual daily traffic, automotive repair shops, car washes, motorized fleet vehicle storage, nurseries, or other land uses or activities that pose a high-threat to groundwater quality.

Thank you for the opportunity to submit these comments.

Sincerely,

Michael Markus, P.E., D.WRE, BCEE, F.ASCE
General Manager

cc: Richard Boon, County of Orange
Keith Linker, City of Anaheim
Gene Estrada, City of Orange