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**ORANGE COUNTY WATER DISTRICT**  
ORANGE COUNTY'S GROUNDWATER AUTHORITY

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December 7, 2015

Ms. Michelle Beckwith  
Santa Ana Regional Water Quality Control Board  
Attn: Coastal Storm Water Unit  
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 2.4 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 water supply for approximately 100,000 families (50,000 acre-feet per year) on an average annual basis. Given water supply realities in southern California, use of stormwater for groundwater recharge is a key water resources management strategy.

OCWD provided comments on previous versions of the draft permit concerning the importance of developing alternative compliance options to facilitate the capture and recharge of surface water for water supply benefits and the need for permit provisions to protect groundwater quality. The following comments suggest changes to this most recent draft permit to address these two concerns.

Provisions Encouraging Development of Regional/Sub-regional Facilities and Credit Programs

On previous occasions, OCWD has commented on the value of encouraging increased infiltration in areas where such infiltration replenishes groundwater basins used for drinking water. In some areas of Orange County, on-site infiltration will not replenish underlying aquifers that are used for drinking water supplies. Therefore, OCWD advocates the expansion of opportunities for alternatives to on-site infiltration and alternative compliance approaches including credit programs.

In this regard, OCWD supports the provision in XII.H.5, which allows for the use of regional or sub-regional off-site LID BMPs in lieu of on-site LID BMPs provided that pre-treatment requirements are satisfied. We support the use of such facilities without the requirement for an on-site stormwater retention feasibility analysis.

Regarding Section XII.N. Credit Programs, OCWD strongly supports the use of and expansion of credit programs as one alternative compliance approach that has potential to not only improve water quality but also to increase infiltration of stormwater that benefits drinking water supplies. We urge the Regional Board to remove the program's restriction to land in common ownership. The current language limiting credit programs to lands of common ownership forecloses opportunities for enhanced stormwater management. This provision severely limits the applicability of the credit program and serves as a disincentive for the development of innovative and valuable alternatives. An additional restriction is the prohibition of credits for projects outside of the watershed of the nearest receiving water in which the structural treatment control LID BMP is located, a limitation that may reduce the opportunity to increase groundwater infiltration in areas where such infiltration has a water supply benefit.

OCWD supports comments from the Construction Industry on Water Quality that request changes in Section XII.H and Section II.M to clarify that an on-site feasibility analysis would not be required in order for priority projects to utilize a regional or sub-regional facility or credit program.

We support the County of Orange in their efforts to develop and expand alternative compliance options and would encourage the Regional Board to provide more flexibility in this regard.

#### Provisions for Groundwater Quality Protection

The existing permit, R8-2009-0030, requires certain groundwater resource protections when utilizing structural infiltration BMPs, such as limits on vertical distances between infiltration systems and seasonal high water, minimum horizontal distances from water supply wells, and prohibitions on infiltration when posing a high threat to water quality (Section XII.B.5). The County of Orange incorporated these protections into the Model WQMP and Technical Guidance Document (TGD). As a result, co-permittees consult with OCWD to review preliminary WQMPs in order to evaluate the potential for on-site infiltration to impact groundwater quality. OCWD recommends that the existing protections for groundwater quality contained in the 2009 permit and as reflected in the Model WQMP and TGD should be preserved in the 2015 permit.

In a letter dated February 12, 2015, OCWD provided a comment that the draft permit (R8-2014-0002) limited existing groundwater quality protections to only infiltration LID BMPs and not to biotreatment control BMPs, even when the draft permit requires biotreatment control BMPs to be designed to maximize the infiltration of the design capture volume or flow.

In the Response to Comments, Region Board staff responded that groundwater quality would be protected by the permit provision that requires vertical separation between the biotreatment control BMP and underlying groundwater as specified in various published engineering design manuals. The Response to Comments further stated that biotreatment control BMPs have design features that make water quality problems more readily detectable than LID BMPs, such as visibility to an observer on the ground and incorporation of vegetation whose health would provide a mechanism to evaluate the facility's condition (Response to Comments, 8.2 page 24 of 28).

We believe that the Response to Comments does not fully address concerns regarding groundwater quality protection. Requiring that biotreatment control BMPs be designed to maximize infiltration may not be advisable at all development and redevelopment sites. The result of the latest draft permit requiring groundwater quality protection provisions for infiltration LID BMPs but not for biotreatment control BMPs that must be designed to maximize infiltration limits some essential protections related to groundwater quality protection.

At a minimum, OCWD requests that to preserve existing groundwater quality protection provisions, the following subsections in Section XII.K. Specific Requirements for Infiltration LID BMPs should also apply to biotreatment control BMPs: subsection 3 (provision for vertical separation from LID BMP to seasonal groundwater), subsection 4 (need for site-specific information when vertical separation is less than 10-feet), subsection 5 (requirement for infiltration LID BMP to be located a minimum horizontal distance of 100-feet from any water supply well), and subsection 8 (provision concerning infiltration LID BMPs proposed over known soil or groundwater contamination). Subsection 2 (consultation with groundwater management agencies) should apply for biotreatment control BMPs where infiltration is proposed on sites with known soil or groundwater contamination. The application of these provisions to biotreatment control BMPs is not necessarily required for all such BMPs, but for those BMPs that exceed a certain threshold, which could be identified in an updated Model WQMP.

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