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ORANGE COUNTY WATER DISTRICT

ORANGE COUNTY'S GROUNDWATER AUTHORITY

October 9, 2012

Charles R. Hoppin, Chair and Members
State Water Resources Control Board
1001 I Street, 24th Floor
Sacramento, CA 95814

Via Email: commentletters@waterboards.ca.gov

SUBJECT: COMMENT LETTER – AMENDMENT TO THE RECYCLED WATER POLICY

Dear Chair Hoppin and Members of the Board:

Orange County Water District (OCWD) staff is pleased to comment on the State Water Resources Control Board's (SWRCB) proposed Amendment to the Recycled Water Policy regarding monitoring of constituents of emerging concern (CECs) in recycled water used for groundwater recharge and landscape irrigation.

OCWD is the public agency responsible for groundwater resource management in the Orange County Groundwater Basin. We represent the interests of more than 20 cities and water agencies that serve groundwater to nearly 2.4 million people in northern Orange County. OCWD operates the Groundwater Replenishment System (GWRS), the country's largest indirect potable reuse project that provides up to 70 million gallons per day (MGD) of purified recycled water for groundwater recharge under permit from the Santa Ana Regional Water Quality Control Board (RWQCB). We also operate the Green Acres Project (GAP), a non-potable reuse project that supplies recycled water for landscape irrigation.

We appreciate the SWRCB's responsiveness to comments provided by OCWD and others on the prior version of the proposed amendment. As detailed below, we have a few remaining important concerns and suggested changes.

1. **Clarify Monitoring Locations for Performance Indicator CECs and Surrogates for Subsurface Application Projects**

Attachment A, Section 2.2.2, specifies where treatment process performance monitoring should occur for subsurface application projects using performance-based indicator CECs and surrogates. In particular, monitoring "following treatment by RO/AOPs prior to release to the aquifer" is specified. We are concerned that this statement will be interpreted to mean that monitoring for all performance indicator CECs and surrogates

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must be conducted after both RO and AOP have been applied. Used in series together, RO and AOP are distinct processes intended to remove particular constituents. Some CEC performance indicators and surrogates are only good measures of performance for RO or post-RO AOP, but not both. Of particular importance is common use of on-line monitoring equipment to specifically evaluate the required RO performance surrogates of Total Organic Carbon and Electrical Conductivity. Some existing projects, including OCWD's GWRS, have appropriately installed these monitoring systems directly after RO.

We are therefore concerned that a requirement to monitor "following treatment by RO/AOPs prior to release to the aquifer" could be interpreted to mean either after both RO and AOP, which, for surrogate compounds would unnecessarily strand existing post-RO monitoring assets at existing treatment plants and/or require their removal and re-installation post-AOP . This would result in significant expense and greatly diminished performance monitoring capability. The value of monitoring will also be reduced if all performance indicator CECs are required to be collected after AOP. Therefore, we recommend the following change:

> "(1) Prior to treatment by RO/AOPs; and
> (2) Following treatment by RO~~/~~ and/or AOPs prior to release to the aquifer. The location for monitoring shall be selected in consultation with CDPH."

This issue also needs to be addressed in the context of Attachment A Tables 3, 4, and 5 in which the subsurface spreading monitoring locations for performance indicator CECs and surrogates are specified as "[p]rior to RO treatment" and "[f]ollowing RO/AOPs prior to release to aquifer." Tables 3, 4, and 5 should be modified consistent with change proposed above for Section 2.2.2.

2. CEC Analytical Methods

While we appreciate the State Water Board removing the requirement to use analytical methods for CECs that have been "approved" by the U.S. EPA, further changes to the proposed language are necessary. The analytical chemistry underlying CEC measurement continues to improve, and restricting analytical methods to those that have been peer reviewed and published provides an undue constraint on innovation to continue this improvement. Additionally Water Research Foundation (WRF) Project 4167 demonstrated that many of the published methods are not sufficiently precise or accurate for monitoring programs. Furthermore, the currently-proposed language does not address instances in which no published methods are available for a specific matrix and/or a sensitivity requirement. Laboratories typically analyze CECs using methods that are based upon existing EPA methods or methods published in scientific journals, but include unpublished modifications. In these instances, laboratories should be allowed to make appropriate modifications to existing published methods, so long as the modified methods met the quality assurance/quality control measures specified on page 3 of Attachment A, Section 1.1. The peer-review and publishing process is often a time-consuming process that might take as little as a few months or as long as several years. Without the flexibility to modify published methods, laboratories will have to go through the lengthy

peer-review and publishing process before their methods can be used to satisfy Policy requirements. We therefore request that Section 1.1 be modified as follows:

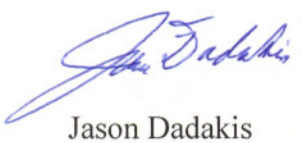
> "Analytical methods for laboratory analysis of CECs shall be selected to achieve the reporting limits presented in Table 1. ~~and~~ These methodologies shall be based upon EPA-published methods, State-certified methods, or shall be peer reviewed and published methods (including those published by voluntary consensus standards bodies such as the Standard Methods Committee and ASTM International). Any modifications to the published or certified methods shall be disclosed in the required quality assurance project plan available for review by the Regional Water Board."

3. Clarify DEET Reporting Limit

The reporting limit (RL) for DEET specified in Attachment A Table 1 was revised to 0.05 ug/L for surface application projects, but not revised and specified as 0.01 ug/L for subsurface application projects. Therefore, the RL for DEET in the Subsurface Application portion of Table 1 should be changed from 0.01 to 0.05 ug/L.

We commend the SWRCB for embarking on a science-based process to develop CEC monitoring requirements for recycled water and are supportive of the implementation of the Science Advisory Panel's recommendations. Please do not hesitate to contact me at (714) 378-3364 or jdadakis@ocwd.com regarding any of the points we've raised in these comments.

Sincerely,



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