



October 3, 2012

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

Subject: Comments on the September 2012 Amendment to the Recycled Water Policy
(Revisions to the May 2012 Draft)

Dear Chair Hoppin and Members of the Board:

The Santa Clara Valley Water District (District) thanks the State Water Resources Control Board (Water Board) for the opportunity to comment on the draft September 2012 proposed amendment to the Recycled Water Policy (amendment) concerning monitoring requirements for constituents of emerging concern (CEC).

As the groundwater management agency for Santa Clara County, the District works to protect the quality and availability of groundwater in the Santa Clara and Llagas Subbasins, which provide nearly half of the water used in the county each year. The District is also working proactively with local partners to expand the use of recycled water. These efforts include completion of the new \$50 million Silicon Valley Advanced Water Purification Center early next year, and master planning additional recycled water facilities to meet the county's future needs through more efficient water use.

The draft September 2012 amendment contains several revisions to the draft May 2012 amendment, for which the District submitted the attached comment letter dated July 3, 2012. While we support most of the revisions, we remain concerned that the proposed response actions based on health-based CEC results are not adequately protective of groundwater. The District appreciates your consideration of the following comments on the revised amendment to the Recycled Water Policy.

Comments on Revised Amendment to the Recycled Water Policy

Landscape Irrigation Projects, Streamlined Permitting (7.b.4)

The proposed revision states: "For landscape irrigation projects, priority pollutants shall be monitored once per year, except for landscape irrigation projects with design production flows of



one million gallons per day or less, which shall be monitored for priority pollutants once every five years." However, other statements in this section refer to recycled water monitoring of surrogates as specified in Attachment A. The District recommends that this section be clarified in terms of specific priority pollutants to be monitored and monitoring location (e.g., recycled water or groundwater). The proposed edits regarding priority pollutant monitoring would decrease required monitoring frequency and effectively exempt nearly all landscape irrigation projects, whereas the previous language only exempted monitoring based on economic considerations (e.g., for small, disadvantaged communities). As the rationale for this shift in monitoring approach was not provided, it is unclear if this reduced monitoring is justified.

Constituents of Emerging Concern, Research Program (10.b)

As discussed in our previous comment letter, the District completed a multi-year study¹ at a recycled water irrigation site that found nitrosamines at concentrations near and above the Notification Level and low levels of perfluorochemicals (PFCs) in shallow groundwater. The District recommends that studies such as this one be considered in the periodic review of CEC monitoring requirements. Results from the upcoming Unregulated Chemical Monitoring Requirements (UCMR) 3 may also provide useful information on the occurrence of recycled water-related CECs in groundwater.

Comments on Attachment A (Monitoring Requirements)

CECs for Monitoring Programs (Section 1.1)

The District supports the proposed revision, which allows for additional monitoring requirements when recommended by CDPH, requested by project proponent, or in accordance with an adopted salt and nutrient management plan.

Monitoring Locations (Section 2)

The District's recycled water irrigation study referenced above found that the concentration of some disinfection by-products increased by an order of magnitude between the recycled water plant and the irrigation site. The District recommends that the potential for increases in CEC concentration due to formation within the distribution system be considered with regard to the monitoring locations presented in the Recycled Water Policy. When these types of CECs are required to be monitored, monitoring should occur at the application site to ensure groundwater resources are protected.

Evaluation of Health-Based CEC Results (Section 4.2)

The District continues to be very concerned that the proposed response actions identified in Table 7 are not protective of groundwater users as only one response action (E) results in any action other than monitoring. The District recommends that consultation with the Regional Water Board and Department of Public Health be triggered when the measured environmental concentration to

¹ The Recycled Water Irrigation and Groundwater Study is available on the District website at <http://www.valleywater.org/Services/GroundwaterStudies.aspx>

Chair Hoppin and Board Members
October 3, 2012
Page 3 of 3

monitoring trigger level ratio is above ten so that timely, appropriate action can be identified to protect the beneficial uses of groundwater.

Thank you for the opportunity to provide comments on the proposed amendment to the Recycled Water Policy. If you have any questions, please contact Mr. Behzad Ahmadi, Groundwater Monitoring and Analysis Unit Manager, at (408) 630-2324.

Sincerely,



Joan Maher
Deputy Operating Officer
Water Supply Management Division
Santa Clara Valley Water District

Attachment: Santa Clara Valley Water District July 3, 2012 Comment Letter

cc: J. Fiedler, B. Ahmadi, H. Ashktorab, V. De La Piedra, P. John

July 3, 2012

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

Subject: Comments on the Amendment to the Recycled Water Policy

Dear Chair Hoppin and Members of the Board:

The Santa Clara Valley Water District (District) thanks the State Water Resources Control Board (Water Board) for the opportunity to comment on the proposed amendment to the Recycled Water Policy to include monitoring for constituents of emerging concern (CECs).

The mission of the District is a healthy, safe and enhanced quality of living in Santa Clara County through watershed stewardship and comprehensive management of water resources in a practical, cost-effective and environmentally sensitive manner for current and future generations. Consistent with this mission, the District manages the Santa Clara and Llagas Subbasins which provide nearly half of the water used in Santa Clara County each year.

The District is also working to expand the use of recycled water in coordination with local recycled water producers. The District is completing a two-year effort to build the largest advanced treatment facility in Northern California. The Silicon Valley Advanced Water Purification Center will use membranes and ultraviolet disinfection to enhance the quality of water from the South Bay Water Recycling system. This nearly \$50 million facility underscores the District's commitment to expanding recycled water use while protecting water quality and the environment. The District appreciates your consideration of the following comments on the proposed amendment to the Recycled Water Policy.

Comments on Recycled Water Policy Amendment

The District supports the regular review of the understanding of CECs by a diverse group of experts and related updates to the Recycled Water Policy monitoring provisions. The state of knowledge with regard to CECs is constantly evolving as scientific studies are completed and more advanced laboratory analyses are developed.

Since the adoption of the Recycled Water Policy in 2009, the District completed the Recycled Water Irrigation and Groundwater Study¹, a multi-year study that included laboratory testing of soils irrigated with recycled water and a field study at a site using recycled water for irrigation. Findings from this study and subsequent monitoring of shallow groundwater indicate the presence of nitrosamines including N-Nitrosodimethylamine (NDMA) and N-Nitrosodiethylamine (NDEA).

¹ Available on the District website at <http://www.valleywater.org/Services/GroundwaterStudies.aspx>



NDMA was detected near the Notification Level and NDEA was detected above the Notification Level. In addition, low levels of perfluorochemicals (PFCs) were also observed. Analysis of recycled water samples at the irrigation site prior to application also suggests the formation of disinfection by-products within the distribution system. The District recommends that studies such as this one be considered in the periodic review of monitoring requirements for recycled water projects, including irrigation projects, to help guide the decision on which CECs to monitor and the appropriate monitoring locations.

Comments on Attachment A (Monitoring Requirements)

CECs for Monitoring Programs (Section 1.1)

The District recommends the following italicized text be added to the first paragraph in this section:

"This Policy provides requirements for monitoring CECs in recycled water used for groundwater recharge reuse. The Regional Water Boards shall not issue requirements for monitoring of additional CECs, beyond the requirements provided in this Policy, except when recommended by CDPH or when requested by the owner or operator of the groundwater recharge reuse project, or in accordance with an adopted regional salt and nutrient management plan.

Evaluation of Health-Relevant CEC Results (Section 4.2)

Table 7 includes response actions based on health-relevant CEC results and the related Measured Concentration/Monitoring Trigger Level (MC/MTL) ratio. It should be clarified that these response actions apply to the monitoring results from either recycled water or groundwater. It is not clear if a single result would trigger the indicated response for Actions B through F and the District recommends the intent be clarified.

The District is concerned that many of the proposed response actions identified are not adequately protective of groundwater. For example, with a MTL of 10 parts per trillion (ppt), NDMA could be detected up to 1,000 ppt before an immediate resample would be required (Action D). This is well above the concentration at which the California Department of Public Health (CDPH) recommends source removal for NDMA (300 ppt) however no additional downstream monitoring is required to ensure drinking water quality is protected. Under Action E, the implementation of a source identification program and additional monitoring would only be required if NDMA was detected between 1,000 and 10,000 ppt. Immediate conference with the Regional Water Board and CDPH is not required until the MC/MTL is over 1,000, which for NDMA would correspond to a concentration over 10,000 ppt.

As some of these scenarios correspond to very high concentrations of CECs in groundwater, the District recommends that the response actions be reviewed to ensure they are adequately proactive, responsive, and protective of the beneficial uses of groundwater. For example, we recommend that additional downstream monitoring be required under Action D as this could correspond to CEC concentrations well above Notification Levels. Potential additional downstream monitoring locations should be identified prior to project startup to ensure timely access if needed. We also recommend that timely notification to the Regional Water Board and CDPH be required under Actions D and E.

Chair Hoppin and Board Members
July 3, 2012
Page 3 of 3

Thank you for the opportunity to provide comments on the proposed amendment to the Recycled Water Policy. If you have any questions, please contact Mr. Behzad Ahmadi, Groundwater Monitoring and Analysis Unit Manager, at (408) 265-2607 extension 2324.

Sincerely,



for Joan Maher
Deputy Operating Officer
Water Supply Management Division
Santa Clara Valley Water District

cc: J. Fiedler, B. Ahmadi, H. Ashktorab, V. De La Piedra, P. John