12/4/07 Bd. Mtg.
Water Recycling Policy
Deadline: 10/26/07 Noon

ESTABLISHED IN 1918 AS A PUBLIC AGENCY

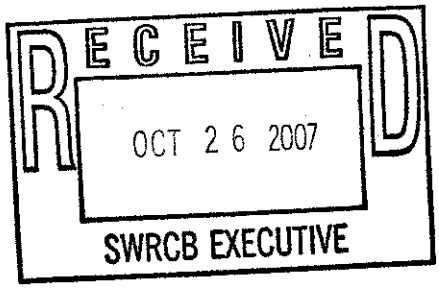
COACHELLA VALLEY WATER DISTRICT

POST OFFICE BOX 1058 • COACHELLA, CALIFORNIA 92236 • TELEPHONE (760) 398-2651 • FAX (760) 398-3711

October 26, 2007

File: 0022.
Recycled Water

Tam Doduc, Chair, and Members
Attention: Jeanine Townsend, Acting Clerk to the Board
State Water Resources Control Board
1001 I Street, 24th Floor
Sacramento, CA 95814



Dear Chair Doduc and Members of the Board:

Subject: Proposed Water Recycling Policy

The Coachella Valley Water District (CVWD) appreciates the opportunity to comment on the proposed water recycling policy for California. CVWD provides domestic water, wastewater, recycled water, irrigation/drainage and regional stormwater protection services to a population of 265,000 throughout the Coachella Valley in Southern California. CVWD has also taken a lead role in groundwater management in the Coachella Valley by importing surface water for groundwater replenishment, encouraging water conservation and developing in-lieu groundwater recharge projects that depend on using alternative non-potable water supplies that include recycled water.

We support the leadership role that the State Water Resources Control Board (State Board) is taking to reduce the regulatory uncertainties that currently exist for permitting recycled water projects with the goal of promoting the use of recycled water. We certainly share this goal. We are concerned that the proposed water recycling policy will not achieve this goal and will actually act to limit water recycling in many areas of the Coachella Valley. We have the following remarks concerning this proposed policy:

1. General Principle. The policy provides a mixed message in regards to the definition of recycled water. The policy uses a precautionary theme to apply laws designed to regulate discharges of waste to recycled water throughout the policy including findings 19, 20, 22 and 23. However, resolution 4 defines recycled water as a valuable resource. This mixed message leads to the very regulatory uncertainty that this policy is attempting to cure. This presumptive belief that recycled water is hazardous continues to limit the development of recycled water projects and leads regional regulators to believe more stringent controls are needed in recycled water use permits. Recycled water needs to be considered a valuable water supply, not a waste. State Board needs to take a strong position that recycled water projects are safe and are not subject to laws designed to control waste disposal. This position is consistent with California Water Code section 13529 (f), which states recycled water use projects are safe. This general principle needs to be stated in this policy to establish a clear message that will truly promote water recycling within California.

2. Finding 6. This finding states, "In arid parts of the state where there is little precipitation available to dilute salts, this effect has caused or threatened to cause violations of groundwater quality objectives for salts in areas that are or were irrigated." This finding is contrary to findings of leaching studies performed by University of California, Riverside, and real experiences of growers in the Coachella Valley, which is one of the most arid areas in the state. In these cases, it is found that leaching of salts does not occur when irrigation is performed using water conserving techniques that include micro-drip and ET controlled irrigation systems and are common in the Coachella Valley. The latter is the type of irrigation system that is commonly used for irrigation projects using recycled water. In these cases, it is increased rainfall commonly found in non-arid areas that is best associated with salt leaching.

3. Finding 12. This finding states that recycled water producers can control industrial discharges and self-regenerating water softeners to limit to 300 milligrams/liter (mg/L) the increase of total dissolved solids (TDS) from a community's source water supply to its recycled water. We find no data in the staff report to support this finding. Section 116786 of the California Health and Safety Code was very carefully crafted to effectively limit the recycled water producer's ability to control discharges of self-generating water softeners at most residences. As long as this legislation exists, recycled water producers will not have complete control of salt discharges into sewer systems and will not be able to insure compliance with this finding.

4. Resolution 6. This seemingly unsubstantial requirement may be the most costly directive ever inserted into a policy without being supported by a dedicated staff report. Applying this requirement to all groundwater basins with water quality objectives that are threatened to be violated almost ensures this directive will result in salt management implementation plans for every urbanized groundwater basin in the state. The implementation plan for Santa Ana is provided as an example of programs that would be needed. The Santa Ana implementation plan is the result of over a decade of work and tens of millions of dollars spent to develop the groundwater monitoring and modeling needed to identify salt sources and management tasks. Water recycling is not a major source of salt impairment to groundwater basins in California and linking this directive to recycled water projects is merely one more regulatory hurdle to inhibit water recycling. Implementing salt management plans is a much larger issue than recycled water use and there have not been enough stakeholder discussions to develop a state-wide policy to require salt management implementation plans. A directive this comprehensive and onerous needs to be accompanied by significant guidance to Regional Board staff. Without this guidance, the water industry will just be faced with more regulatory uncertainty.

5. Resolution 7. Paragraph (d) of this resolution would require Regional Board staff include a TDS restriction in permits for recycled water projects. Based on the proposed restriction and clarification provided during the October 2 public workshop about how this restriction would be used to control the TDS in applied recycled water, we are concerned that this TDS restriction will act to seriously limit CVWD's plans to increase recycled water use in the Coachella Valley. Resolution 7(d) would also require monthly determinations of TDS concentrations found in public water supply wells and recycled water. As the largest public water supplier in the Coachella Valley, we speak with experience that this exercise would be onerous and an unreasonable use of public resources. There are over 100 separate water sources serving the public water system that returns wastewater to our water reclamation plants. These sources are monitored once every three years for TDS in accordance with state requirements.

The state allows infrequent monitoring of these groundwater sources because TDS levels rarely change rapidly in groundwater. This is particularly the case for Coachella Valley water wells that are drilled in excess of 1,000 below ground surface. These sources are not monitored monthly for any parameter so this requirement would result in developing a new monitoring program just to confirm that TDS levels in these wells are constant. While this monitoring requirement would be unreasonable, the TDS restriction proposed in this resolution would disable our plans to expand recycled water use in the Coachella Valley. The following information supports our request that resolution 7(d) be removed from the proposed policy:

a. Recycled water irrigation projects depend on mixed water sources. Projects using mixed sources of recycled water and non-potable Colorado River water are a critical component of CVWD's Coachella Valley Water Management Plan completed in 2002. These projects are needed to provide a reliable water supply capable of meeting the demand of large irrigation projects, like golf courses, which far exceeds available recycled water. These projects depend on the flexibility of using 100% recycled water, 100% Colorado River water or any mix of these sources to balance the diametrical relationship that exists between water demand and water supply caused by seasonal population and climate changes. Salinity levels found in Colorado River water, even when mixed with large amounts of recycled water, will not meet the proposed 300 mg/L limit for increased TDS found in the applied recycled water when compared to public water system TDS. The public water system is served by deep water wells pumping high quality groundwater with average TDS levels of about 200 mg/L. While this water supply is not representative of the shallow groundwater that contains higher levels of salinity, it would still act to severely limit recycled water projects that depend on meeting the proposed 300 mg/L TDS restriction.

   The proposed TDS restriction in this resolution would impact two existing recycled water projects already using a mix of over 2,000 acre feet of recycled water and Colorado River water. The likely solution would be to stop delivering recycled water to these projects. This pales to the impact this TDS limit would have on a $70 million CVWD project under construction to annually provide almost 50,000 acre feet of this same mixed supply to about 50 golf courses. CVWD's ability to deliver recycled water to these new users would be crippled due to TDS levels that could not meet the 300 mg/L restriction. CVWD would likely be forced to exclude recycled water from this project and depend on a water supply consisting of only Colorado River to serve these users.

b. Perched groundwater with no beneficial uses. Clay lenses and a large clay aquitard act to create perched shallow groundwater conditions in a large portion of the Coachella Valley. Over 37,000 acres of subsurface drains have been installed to reclaim this land by removing this perched groundwater, which contains high levels of naturally occurring salts and has no existing beneficial uses. While the perched groundwater has high TDS levels, the confined aquifer below has low TDS levels, often below 150 mg/L. It would be unreasonable to require recycled water projects planned for this area to meet an effective TDS limitation of 450 mg/L. This limitation would be more stringent than drinking water standards and would be several times lower than the level of TDS found in the naturally perched groundwater. This policy needs to be flexible to ensure that in these cases overly protective TDS limits are not used to discourage recycled water use projects.

c. Unintended consequences. The proposed TDS limitation will very likely prevent CVWD from developing about 50 recycled water use projects in the Coachella Valley. Instead of receiving a blend of recycled water and non-potable Colorado River water, CVWD will likely deliver 100% Colorado River water to these 50 irrigation projects to meet our water management goals. Since the Colorado River water contains higher levels of TDS than recycled water, the proposed TDS limit will have the unintended consequence of increasing the amount salt applied for irrigation and reducing the amount of water recycling in the Coachella Valley. Another unintended consequence is that by discouraging water recycling in areas where high quality aquifers are overdrafted, this will increase pumping from these aquifers which will increase the chance of perched groundwater degrading high quality aquifers with high levels of TDS.

d. Lost opportunities for other mixed use recycled water projects. In many areas of the state, shallow groundwater contains elevated levels of salt making it unattractive for potable uses but acceptable for irrigation uses. This type of blending opportunity for recycled water projects would likely be prevented as a result of this TDS limitation. This is the type of groundwater and recycled water use that the State Board needs to encourage instead of inhibiting.

6. Resolution 17. This resolution would attempt to change existing California laws related to liability to potentially make purveyors and/or users of recycled water liable for any activity which has caused, is causing, or threatens to cause groundwater to violate past, present or future drinking water standards. It is not reasonable to hold recycled water projects responsible to comply with standards that do not exist. This type of liability provision would send a strong message discouraging water recycling. We recommend this resolution be replaced with a statement that this policy does not intend to change existing laws regarding discharger liability for groundwater contamination.

7. Resolution 18. This resolution would allow Regional Boards the ability to require project owner's pass a financial means test to cover the liability requirement in resolution 17. This attempted change to California liability laws would only make it more uncertain whether a recycled water project could pass this financial test and would be a good way to discourage water recycling in California. This resolution should be deleted from the proposed policy.

In closing, we offer our support to the general comments provided by the California section of the WateReuse Association and the Association of California Water Agencies. The alternative policy text provided by WateReuse provides a complete framework and most of the details needed to meet our shared goal to promote water recycling in California. We appreciate your consideration of our comments and look forward to providing additional input and support to help achieve this goal.

If you have any questions or would like to discuss some of these comments, please call Steve Bigley, Water Quality Manager, extension 2286.

Yours very truly,

Mark L. Johnson
Director of Engineering

cc: Krista Clark
ACWA
910 K Street, Suite 100
Sacramento, CA 95814

SB:ch\eng\wr\07\oct\tam dod