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

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October 24, 2007

Jeanine Townsend
Acting Clerk to the Board
State Water Resources Control Board
1001 I Street, 24th Floor
Sacramento, CA 95814

Subject: Comment Letter – Water Recycling Policy

Dear Board Chair and Members:

The City of Sunnyvale is located in Santa Clara County along the southwestern portion of San Francisco Bay. The City operates a recycled water system that includes approximately 43,300 feet of 12-inch through 36-inch transmission mains, 34,000 feet of 8-inch distribution lines, two 8-mgd pump stations and a two million gallon storage tank. Disinfected tertiary recycled water produced at the Sunnyvale Water Pollution Control Plant (WPCP) is used primarily for irrigation at a County park, the Sunnyvale Golf Course, several large athletic fields, and landscaping at over 70 commercial/industrial sites and 12 street median sites, all located in the northern half of the City. The City began delivering recycled water in the mid-1990's and currently supplies approximately 300 million gallons of recycled water per year to these facilities.

The City has reviewed the proposed water recycling policy and associated draft staff report and certified regulatory program environmental analysis. We have the following comments on those documents.

Irrigation Projects - Salt Impacts

The City recognizes that it is important to protect groundwater basins from accumulation of salts to levels that would impair beneficial uses. Where warranted, salt management needs to be addressed on a watershed basis, addressing all sources of salt, not just salt from recycled water. Various commenters presented case studies illustrating that a watershed approach involving key stakeholders is the most effective way to approach salt management for basins requiring additional protection. However, the staff report rejected the basin-wide salt management plan approach to managing salt (Alternative (e)) and instead recommended Alternative (d), setting a uniform recycled water TDS increment limitation for all recycled water irrigation projects.

The City is very concerned about the negative impact on water recycling of the proposed 300 mg/L limit on total dissolved solids (TDS) increment (i.e., the difference between public water supply and produced recycled water). The City would be in immediate and significant non-compliance with a 300 mg/L increment limit and would therefore have to terminate its recycled water operations.

The TDS increment in the City's recycled water, and in recycled water from most of the other agencies that it is familiar with, is much higher than 300 mg/L. In 2006, the TDS of the City's recycled water averaged **763 mg/L**, which is somewhat higher than the WPCP influent as a result of treatment processes, including evaporation from the 440-acre oxidation pond system. The City's potable water supply is derived from the SFPUC's Hetch Hetchy system (~47%), the Santa Clara Valley Water District (~48%), and City of Sunnyvale municipal wells (~5%). In 2006, the average TDS of water from these sources was 112 mg/L, 231 mg/L, and 433 mg/L, respectively, with a blended average of **185 mg/L**. ***The 2006 TDS increment was therefore 578 mg/L.***

The staff report provides no technical basis for the assertion that a 300 mg/L increment is something that "a majority of recycled water producers can meet". Rather, increments exceeding 300 mg/L appear to be the norm, even when there are no significant industrial discharges of salt to the wastewater system. Thus in most cases, agencies will be required to implement controls on commercial and residential water softeners. While conceptually straightforward, these efforts require significant agency resources to implement, and are likely to yield only modest results relative to salinity levels in the recycled water. There are also institutional barriers which limit the effectiveness of these efforts. The City notes that although State law allows prohibitions on new residential self-regenerating water softeners (under very limited circumstances), existing softeners are exempt from such prohibitions. This requirement that recycled water agencies implement control measures in cases where the increment exceeds 300 mg/L will serve as another obstacle to the use of recycled water for irrigation.

The City believes that impacts on groundwater quality resulting from the use of recycled water for irrigation are highly location specific, that the policy's proposed "one size fits all" approach is not scientifically based, and that this approach is likely to hinder the use of recycled water in cases where no significant impacts exist. A case-by-case approach, where the specific characteristics and actual beneficial uses of the groundwater resource are considered, would be more appropriate. In the City's case, there are no shallow drinking water wells used for municipal supplies in the areas served by (or future areas likely to be served by) the recycled water system. Even if the City were able to comply with an incremental TDS limit, it is not clear how the information collected would be helpful for improved TDS management/control of the unused shallow groundwater under each of the recycled water irrigation sites that are surrounded by fertilized potable water irrigation sites. Considerable resources also would be required to collect and compile accurate TDS information since different portions of the City receive different blends of potable water.

The State Board has recognized the importance of flexibility and consideration of local factors in evaluating recycled water impoundments, and should apply the same principal to recycled

water irrigation. As a general principle, the Policy should acknowledge that minor and incidental groundwater recharge from landscape projects designed and operated to apply water at agronomic rates will not significantly contribute to the accumulation of any constituent in the groundwater.

The City notes that in the San Francisco Bay Region, the Regional Water Board has required the use of recycled water to be addressed in groundwater salinity management plans in those basins where salinity concerns exist. This more flexible approach is consistent with Policy Resolution 6, and with the spirit of Resolution 7(c).

Nutrient Management Plans

The Policy Resolution 7(a) would require that all recycled water irrigation projects develop nutrient management plans. The City believes that this is unnecessarily burdensome and redundant given that recycled water is already required to be applied at an agronomic rate (Resolution 7(c)). Nutrient (and salt) management plans should only be required by exception, i.e. when there is a significant potential for adverse impacts on an important groundwater resource. Any such required plans should be developed on a basin-wide mass balance basis and include all sources of nutrients (and/or salts) in the watershed.

Incidental Runoff

The staff report indicates that the issue of incidental runoff of recycled water will most likely be addressed through the development of a statewide general NPDES permit. The City believes this approach is both unnecessary and burdensome. In most cases, incidental runoff of recycled water can be addressed more efficiently in municipal stormwater permits as a conditionally exempt non-stormwater discharge, subject to mandatory Best Management Practices. This approach has historically been used to address incidental runoff of potable irrigation water.

NPDES Regulation Compliance

In the proposed Policy, Resolve 7(e) requires that water reclamation permits comply with 40 CFR Part 122 NPDES requirements. Resolve 7(f) contains the "Reasonable Potential" language from 40 CFR 122.44(d)(1)(i) to not "cause or contribute to violations of water quality objectives." It is not clear what the basis is for including these two Resolves for water recycling projects that by definition involve discharges to land, not to surface waters. The City believes that these two Resolves should be deleted from the Policy so that they are not interpreted by permit writers to imply that NPDES permits and water quality based effluent limitations are required for water recycling projects. Leaving in these two Resolves would be contrary to the stated purpose of the Policy (Whereas 3) to provide greater consistency in the application of requirements for recycled water use. Including these two Resolves could in fact lead to increased variation in requirements (NPDES versus WDR) issued by different Regional Water Boards.

The City appreciates the opportunity to provide these comments. If you have any questions, please contact me (408-730-7268) or Dr. Tom Hall of EOA, Inc. (510-832-2852 x110).

Sincerely,

Lorrie B. Gervin
Environmental Division Manager
Department Of Public Works
City of Sunnyvale

hp LaserJet 4345mfp series

Fax Call Report 1

SWRCB
916-341-5621
2007-Oct-26 03:24 PM

Job	Date/Time	Type	Identification	Duration	Pages	Result
776	2007-Oct-26 03:22 PM	Receive	408 737 4957	1:19	4	Success
	Oct 26 07 03:29p sv			408-737-4957	p.1	

CITY OF SUNNYVALE CALIFORNIA

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