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May 1, 2007

California Regional Water Quality Control Board
San Diego Region
9174 Sky Park Court, Suite 100
San Diego, CA 92123-4340
Attn: Ms. Michelle Mata

Subject: Tentative Order No. R9-2007-0067 Rescission of Order No. R9-2004-0015 Lake Cuyamaca
Recreation and Park District

Dear Ms Ritschell, Chair, and Members of the Board:

Tentative Order No. R9-2007-0067 rescinds the waste discharge requirements for the Lake Cuyamaca Recreation and Park District septic system Order No. R9-2004-0015. Our review of the Tentative Order finds that it has not been adequately justified to waive the discharge requirements per the conditions of the Waiver Policy. We therefore, recommend that you not approve the rescission for the reasons shown below.

Insufficient characterization of the waste disposal site subsurface geology, geochemistry, and hydrology

The San Diego County Department of Land Use has found that fractured rock underlies 73% of the non-incorporated area, most of which is in the mountains¹. Characteristics of fractured rock aquifers vary significantly, wells drilled in the fractured rock aquifers few tens of feet from each other may have significantly different production rates. The United States Geological Survey (USGS) fact sheet² notes that understanding how water flows or doesn't flow through fractured rock is a crucial factor in decisions made by water resource management. Because of the complex distribution of the fractures in almost every type of rock, no single method can unambiguously map the fractures and their movement of water. The Tentative Order fails to provide this critical information for the septic system discharge site in order to make sound assessments of whether the proposed actions will assure compliance with the Basin Plan Objectives.

The Tentative Order fails to provide the details of the discharger approach and calculations used to comply with the conditions of the Waiver Policy

¹ Land Use and Environment Group, Department of Planning and Land Use, Department of Planning and Land Use, Dept of Public Works County, *Guidelines for Determining Significance and Report Format and Content Requirements Agricultural Resources*, March 19, 2007 pp 16-17
<http://www.sdcounty.ca.gov/dplu/Resource/docs/3~pdf/AG-Guidelines.pdf>

² USGS Fact Sheet 112-02, Fractured-Rock Aquifers: Understanding An Increasingly Important Source of Water
<http://toxics.usgs.gov/pubs/FS-112-02/>

The approach requires ample land to provide sufficient mixing of the septic tank effluent and precipitation recharge water to comply with the Basin Plan Objective for iron, manganese, and nitrate. As the Waiver Policy does not explicitly allow this approach, please explain why this is allowed. The Tentative Order should show the physical location and linear dimensions of the 263 acres needed for the mixing of the effluent.

The discharger proposal to comply with the Basin Plan Objectives for iron, manganese and nitrate is flawed and not acceptable.

The intent is to require 263 acres surrounding the discharge location to provide mixing of the septic effluent with recharge water from precipitation. Absent the effluent, the region has historically received precipitation to recharge the groundwater yet the water quality objectives have not been met. Precipitation flows through the surface layer and enters into the groundwater. In the process it leaches minerals in the soil and rock and nitrates in plant matter. So it belies logic that adding the effluent would allow the amount of precipitation on the 263 acres to provide the necessary dilution of the effluent. It should be noted that the effluent contains a wide array of toxic chemicals. Furthermore, the effluent itself also chemically reacts with the subsurface matter adding dissolved minerals into the groundwater³. Simply put, the assimilative capacity of the region is zero.

The Tentative Order fails to comply with the State antidegradation policy Resolution 68-16.

Because the disposal site assimilative capacity is zero adding even an incremental level of the constituents of concern is in violation of the antidegradation policy. There has been a similar case that resulted in the so called Rancho Caballero Decision. On May 30, 1972 the Orange County Water District petitioned the State Water Resources Control Board (SWRCB) for review of Order No. 72-16 of the Santa Ana Regional Water Quality Control Board waste discharge requirements for Rancho Caballero Mobile Home Park⁴. The petition contested the discharge permit because the water quality for total dissolved solids (755 mg/L) exceeded the Basin Plan Objective (700 mg/L) but was less than the non-compliant water quality of the receiving water (900 mg/L). The SWRCB ruled in Order No. 73-4 that there was no assimilative capacity given that the groundwater was not better than necessary to protect the use and remanded the order back to the Regional Water Quality Control Board.

The memorandum of understanding developed by the Lake Cuyamaca Recreation and Park District with the California State Parks, Colorado Desert District for the 263 acres exclusion zone was done without public input.

We question if this is in violation of CEQA.

Groundwater monitoring and site characterization is essential

The Tentative Order does not require groundwater monitoring. We understand that the Board has delegated this to the County Department of Health Service. As noted above, it is critical to adequately characterize the site geology, geochemistry, and hydrology for the management and compliance monitoring of the septic system discharge. The State Water Resource Control Board conducted a septic system workshop expressed important concerns⁵. The section on groundwater monitoring stated that it is problematic to monitor the discharge in fractured rock for two primary reasons; a), it is impossible to predict the path of the discharge through erratic fissures in the

³ http://toxics.usgs.gov/topics/gwcontam_transport.html USGS Groundwater Contaminant Transport

⁴ http://www.swrcb.ca.gov/resdec/wqorders/1973/wq1973_04.pdf

⁵ SWRCB Onsite Wastewater Treatment Systems Regulations, State Board Workshop, Information Item, December 9, 2005. http://www.swrcb.ca.gov/ab885/docs/ab885_staff_presentation.pdf

underlying rock and b), discharge in the fractured rock travels faster and may be less diluted. Consequently there is a finite risk, for example, that some of the effluent can follow a fissure that surfaces at some location down gradient from the leach field, posing a hazard to plants, animals, and humans; a violation of the discharge requirement. These technical concerns must be resolved in order to assure reliable and accurate means to show that the discharge complies with the Basin Plan Objectives. This poses a significant regulatory dilemma as these concerns have not been addressed.

Summary

We conclude that we have very little confidence that rescinding the waste discharge requirements of Order R9-2004-0015 for the Lake Cuyamaca Recreation and Park District and waiving the discharge requirements under the Waiver Policy in the Basin Plan per the Tentative Order would assure that the septic system discharge would comply with the three general conditions:

- The discharge shall not create a nuisance as defined in the California Water Code
- The discharge shall not cause a violation of any applicable water quality standard
- The discharge of any substance in concentrations toxic to animal or plant life is prohibited

We ask that you do not adopt the Tentative Order R9-2007-0067.

Sincerely,



Edward Kimura
Sierra Club
San Diego Chapter

cc: Elizabeth Janes
USEPA Region 9