



CVCWA Central Valley Clean Water Association

Representing Over Fifty Wastewater Agencies

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Via Electronic Mail

March 17, 2007

Mr. James Marshall
Senior Engineer
Central Valley Regional Water Quality Control Board
11020 Sun Center Drive, Suite 200
Rancho Cordova, CA 95670

Subject: Comments on Tentative Waste Discharge Requirements and Time Schedule Order for City of Vacaville's Easterly Wastewater Treatment Plant

Dear Mr. Marshall:

The Central Valley Clean Water Association (CVCWA) has reviewed the Tentative Order (TO) and proposed Time Schedule Order (TSO) for the City of Vacaville's (City) Easterly Wastewater Treatment Plant (EWWTP). We understand that the City will submit detailed comments on a number of provisions of the TO and TSO, and therefore this letter focuses on a few issues of importance to CVCWA, given the potential impact on other permittees within the Central Valley.

Tertiary Treatment

CVCWA has reviewed the tertiary treatment requirements contained in the TO and the two options noticed separately. Based on our review, we believe that that seasonal tertiary treatment requirements contained in the TO are preferable because they sufficiently protect both existing and potential beneficial uses. The seasonal requirements recognize that the beneficial uses of concern are unlikely to ever occur in the wet months and are therefore both more reasonable and technically sound. This approach is also consistent with findings made by the California Department of Public Health (DPH), which determined that tertiary filtration during the dry months was sufficient to protect public health. DPH also determined that secondary treated effluent of 23 MPN was sufficient to protect public health in the wet months.

CVCWA does not support either of the options noticed separately, because they are not necessary to protect public health and are not directly tied to the protection of existing or probable beneficial uses. The noticed options would require the City to build unnecessary capacity for filtration and increase the complexity of plant operations at the EWWTP without providing any added benefit to the environment or for the protection of beneficial uses. Thus,

CVCWA encourages the Regional Water Quality Control Board (Regional Water Board) to adopt the seasonal requirements contained in the TO as the preferred alternative.

Groundwater Limitations

In addition to the tertiary treatment alternatives, CVCWA is also concerned with the groundwater limitations as expressed in the TO. Several of the groundwater limitations are inappropriate interpretations of narrative objectives. For example, the TO proposes a groundwater limit of 450 mg/L for TDS based on the agricultural water quality goals contained in the *Water Quality for Agriculture, Food and Agriculture Organization of the United Nations – Irrigation and Drainage Paper No. 29, Rev. 1* (1985) (UN Report). However, the TO does not apply the agricultural water quality goal for TDS as intended in the UN Report. The agricultural water quality goals in the UN Report are not intended to be interpreted as absolute values. When using the agricultural water quality goals, the Regional Water Board is required to consider site-specific factors such as rainfall, soil quality and type, rainfall, etc. before applying the values as contained therein. (*In the Matter of the Own Motion Review of City of Woodland, Order WQO 2004-0010* (June 7, 2004) at p. 7.) If such information is not readily available, it is appropriate to require a study to obtain the relevant information before adopting groundwater limitations based on the agricultural water quality goals. Such a process is consistent with the State Water Board's conclusions in Order WQO 2004-0010. (*Id.* at pp. 7-9.) Until such time that the Regional Water Board is able to consider site-specific factors, it is inappropriate to include a groundwater limitation set at 450 mg/L for TDS in the TO.

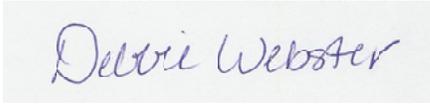
The TO also includes a groundwater limit for ammonia that is intended to interpret the narrative taste and odor objective. The ammonia groundwater limitation is based on a study contained in the *Journal of Applied Toxicology* by Amoores and Hautala. (Tentative Order at p. F-55; Amoores & Hautala, *Odor as an Aid to Chemical Safety: Odor Thresholds Compared with Threshold Limit Values and Volatilities for 214 Industrial Chemicals in Air and Water Dilution* (1983), *Journal of Applied Toxicology*, Vol. 3, No. 6, p. 272.) CVCWA continues to be concerned with the use of this study to interpret the narrative taste and odor objective for groundwater because the ammonia groundwater limitation in the TO is not consistent with the intent and purpose of the referenced article. The purpose of the *Journal* article is to provide quantitative data on odor thresholds of potentially hazardous chemical vapors and gases. The intent is to merely identify at what concentration the chemical is identified for industrial health and safety specialists to further determine if threshold limit values are exceeded.¹ The ammonia value in the article is the "concentration of the substance in water, which will generate the air [odor threshold] concentration in the headspace of a stoppered flask." (*Id.* at p. 282.) There is nothing in the article that represents, suggests or implies that ammonia at such concentrations in water will impair municipal or domestic uses of groundwater due to adverse odors. Thus, the TO improperly takes a numeric criterion developed for an unrelated purpose and applies it to groundwater. CVCWA recommends that the groundwater limit for ammonia be removed because it is an inappropriate interpretation of the narrative objective.

For these reasons, CVCWA requests that the Regional Water Board reject the tertiary treatment options noticed separately and adopt the seasonal tertiary treatment requirements proposed in

¹ The threshold limit value ("TLV") is a registered trademark of American Conference of Governmental Industrial Hygienists ("ACGIH"). The TLV is defined as the time-weighted average concentration for a normal 8-hour work-day and 40-hour work-week, to which nearly all workers may be repeatedly exposed, day after day, without adverse effect. (*Odor as an Aid to Chemical Safety*, etc., *Journal of Applied Toxicology*, *supra*.)

the TO, and remove the groundwater limits proposed in the TO. Thank you for your consideration of our comments. Please feel free to contact me if you have any questions regarding our comments.

Sincerely,

A rectangular box containing a handwritten signature in blue ink that reads "Debbie Webster".

Debbie Webster, Executive Officer
Central Valley Clean Water Association

c: Dave Thompkins – City of Vacaville
Jacque McCall – City of Vacaville