



CVCWA

Central Valley Clean Water Association

Representing Over Fifty Wastewater Agencies

MICHAEL RIDDELL – CHAIR, CITY OF RIVERBANK
JEFF WILLETT – SECRETARY, CITY OF STOCKTON

TERRIE MITCHELL – SACRAMENTO REGIONAL CSD
ED CROUSE – TREASURER, RANCHO MURIETA CSD

December 7, 2012

Via Electronic Mail Only

Mr. David Kirn
Regional Water Quality Control Board
Central Valley Region
11020 Sun Center Drive, #200
Rancho Cordova, CA 95670
dwkirn@waterboards.ca.gov

Re: Central Valley Clean Water Association's Comments on the Tentative Order for the El Dorado Hills Wastewater Treatment Plant

Dear Mr. Kirn:

The Central Valley Clean Water Association (CVCWA) appreciates the opportunity to submit these comments on the Tentative Order for El Dorado Irrigation District's (EID) El Dorado Hills Wastewater Treatment Plant (WWTP). CVCWA is a non-profit organization representing more than 50 publicly owned treatment works (POTWs) throughout the Central Valley in regulatory matters affecting surface water discharge, land application, and water reuse. We approach these matters in a way that balances environmental and economic interests consistent with applicable law.

We reviewed the Tentative Order and have significant concerns with certain provisions. In particular, findings for ammonia¹ in the Tentative Order do not reflect proper consideration of the SIP's² procedures for making reasonable potential and compliance determinations. The

¹ The applicable effluent limitations are for ammonia nitrogen, total (as N).

² *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (2005) or "SIP."

Tentative Order inappropriately relies on the SIP in describing the basis of the effluent limitations for biochemical oxygen demand (BOD) and total suspended solids (TSS). In addition, the ultra violet (UV) disinfection requirements impermissibly dictate how EID must comply with the permit.

For these reasons described in detail below, we respectfully request that you: (1) modify the findings for ammonia to reflect proper consideration of the SIP's stepwise procedure for determining reasonable potential; (2) revise the reasonable potential analysis for BOD and TSS, eliminating reference to the SIP; (3) replace the UV Disinfection System Operation Specifications and add the compliance determination provision as suggested below; and (4) modify the reporting and compliance determination provisions, particularly with regard to the use of minimum levels (MLs) and reporting levels (RLs), to be consistent with the SIP.

A. The Findings Respecting Ammonia Should Be Revised to Reflect Proper Consideration of the SIP's Procedure for Determining Reasonable Potential

The Tentative Order's findings for ammonia do not reflect proper consideration of the SIP's stepwise procedure at Section 1.3 for determining whether a pollutant requires water quality-based effluent limitations (WQBELs). We request that you revise the findings for ammonia to address Section 1.3, Step 4³ of the SIP.

Section 1.3 of the SIP has three triggers for determining that a discharge may cause or have the reasonable potential to cause or contribute to the exceedance of a water quality objective. The first trigger is at Step 4 and compares the maximum observed effluent concentration (MEC) to the water quality objective.⁴ "If the MEC is greater than or equal to the [objective], an effluent limitation is required and the analysis for the subject pollutant *is complete*."⁵ Under the second trigger (Step 6), if the observed maximum receiving water background concentration exceeds the water quality objective, reasonable potential exists and the analysis is complete.⁶ The third trigger, found at Step 7, authorizes: "Review of other information available to determine if a [WQBEL] is required, notwithstanding the above analysis in Steps 1 through 6, to protect beneficial uses."⁷

The Tentative Order relies upon the third trigger at Step 7 to find that the permit must include WQBELs for ammonia.⁸ The "other information" cited in the findings to support the

³ All subsequent uses of "Step" refer to a step in Section 1.3 of the SIP.

⁴ SIP, § 1.3 at p. 6; *In the Matter of the Petitions of East Bay Municipal Utility District, et al.*, Order WQO 2002-0012 (July 18, 2002) (EBMUD Order) at p. 26; *In the Matter of the Petitions of Napa Sanitation District, et al.*, Order WQ 2001-16 (Dec. 5, 2001) (Napa Order) at p. 29.

⁵ *Ibid.*

⁶ *Ibid.*

⁷ SIP, § 1.3 at p. 6, emphasis omitted; see EBMUD Order, *supra*, at p. 26; Napa Order, *supra*, at p. 29.

⁸ Tentative Order at pp. F-42.

determination consists solely of “facility type” - i.e., “a POTW that treats domestic wastewater.”⁹ The findings for the results of the reasonable potential analyses do not address the first or second triggers at Steps 4 and 6.¹⁰

The Tentative Order’s findings should be revised to address Steps 4 and 6. As mentioned, a finding of reasonable potential at Step 4 or Step 6 completes the analysis, and consideration of Step 7 is inappropriate. Given the lack of findings, it is unclear whether the use of Step 7 is appropriate. Such a lack of findings runs afoul of the Central Valley Regional Water Board’s (Central Valley Water Board) duty in establishing permit conditions to “set forth findings to bridge the analytic gap between the raw evidence and the ultimate decision or order.”¹¹ If the use of Step 7 is appropriate, the reasonable potential determination should not be based on facility type alone. Rather, the determination should also include evaluation of other factors, such as technology-based effluent limitations, other controls, and compliance history.¹² Moreover, the determination should reflect consideration of the effluent data, including the lack of triggering the need for WQBELs under Step 4 or Step 6. Only in this manner could the findings and any related WQBELs be supported by evidence in the record as required by law.¹³

B. The Findings for BOD and TSS Should Be Modified to Remove Reference to the SIP and Reflect that a Reasonable Potential Analysis is Unnecessary

The Tentative Order indicates that the WQBELs for BOD and TSS were based on a reasonable potential analysis using Step 7 of the SIP.¹⁴ We request that the findings be revised to remove the reference to the SIP and reflect that no potential analysis was necessary to include the WQBELs in the Tentative Order.

Because BOD and TSS are conventional parameters, using the SIP’s procedures for determining reasonable potential is not required.¹⁵ Moreover, the Tentative Order contains findings that adequately explain the basis for the WQBELs. Specifically, the findings explain that the use of “[t]ertiary treatment is necessary to protect the beneficial uses of the receiving stream.”¹⁶ The findings further explain that the WQBELs for BOD and TSS “are more stringent than the secondary technology-based treatment” that the federal regulations prescribe as a

⁹ *Ibid.*

¹⁰ *Id.* at pp. F-41 to F-42.

¹¹ *Topanga Assn. for a Scenic Community v. County of Los Angeles* (1974) 11 Cal.3d 506, 515. This duty serves to “conduce the administrative body to draw legally relevant sub-conclusions supportive of its ultimate decision” and “facilitate orderly analysis and minimize the likelihood that the agency will randomly leap from evidence to conclusions.” (*Id.* at p. 516.) Findings must be supported by evidence in the record. (*Id.* at pp. 514-515.)

¹² See e.g., 40 C.F.R. § 122.44(d)(1)(ii); *Technical Support Document for Water-Quality Based Toxics Control, U.S. Environmental Protection Agency* (March 1991), pp. 49-50.

¹³ *Ibid.*

¹⁴ Tentative Order at p. F-44.

¹⁵ See SIP at p. 3.

¹⁶ Tentative Order at p. F-44; see Tentative Order at p. F-13.

minimum standard for POTWs.¹⁷ Establishing performance-based WQBELs for the WWTP resulting from the capabilities of tertiary treatment (rather than the SIP) is appropriate in this case. Such an approach was upheld by the State Water Resources Control Board in *In the Matter of the Petitions of City of Stockton, et al.*, Order WQ 2009-0012 (Oct. 6, 2009) at pages 6 to 8.

C. The UV Disinfection Requirements Should Be Revised and Compliance Determination Language Added to Ensure Adequate Disinfection Without Dictating the Manner of Permit Compliance

The Tentative Order contains highly prescriptive UV Disinfection System Operation Specifications for the WWTP.¹⁸ These specifications are inconsistent with the Water Code's prohibition against dictating the manner of permit compliance. In particular, Water Code section 13360(a) states:

No waste discharge requirement or other order of a regional board or the state board or decree of a court issued under this division shall specify the design, location, type of construction, or particular manner in which compliance may be had with that requirement, order, or decree, and the person so ordered shall be permitted to comply with the order in any lawful manner.

Water Code section 13360 "preserves the freedom of persons who are subject to a discharge standard to elect between available strategies to comply with that standard."¹⁹ Under this section, "[t]he discharger *must* be allowed to comply with the permit in any lawful manner."²⁰ Accordingly, the Tentative Order and adopted permit must "allow[] the dischargers to select the manner of compliance."²¹

In this case, the Tentative Order would establish requirements that impermissibly dictate EID's manner of permit compliance. For example, the Tentative Order would require EID to "operate the UV disinfection system to provide a minimum UV dose per channel of 100 millijoules pre square centimeter (mJ/cm²) at peak daily flow[.]"²² In addition, the Tentative Order contains detailed requirements related to UV transmittance, flow, lamps, quartz sleeves,

¹⁷ Tentative Order at p. F-13; see Tentative Order at p. F-44.

¹⁸ Tentative Order at p. 22.

¹⁹ *Tahoe-Sierra Preservation Council v. State Water Resources Control Board* (1989) 210 Cal.App.3d 1421, 1438.

²⁰ *In the Matter of the Review on Own Motion of Waste Discharge Requirements Order No. 5-01-044 for Vacaville's Easterly Wastewater Treatment Plant*, Order WQO 2002-0015 (Oct. 3, 2002) at p. 37, emphasis added.

²¹ *In the Matter of Petition of Citizens for a Better Environment (CBE), et al.*, Order No. WQ 90-5 (Oct. 4, 1990) at p. 87; see *In the Matter of the Petition of the United States Department of Agriculture, Forest Service of Review of Order No. 6-82-123*, Order No. WQ 83-3 (April 21, 1983) at p. 4 [Water Code section 13360 "allows the Regional Board to regulate discharges of waste fully, so long as it does not tell the discharger precisely how to meet the established limits."].

²² Tentative Order at p. 22.

and other parameters.²³ Because the UV Disinfection System Operation Specifications (Section VI.C.4.b) run afoul of the Water Code, we respectfully request that you replace them with the following:

- a. **Disinfection System Specifications.** The Discharger shall operate and maintain the Facility to achieve equivalency to Title 22 disinfected tertiary recycled water as described in Section VI.C.6.a.

We further request that you add the following related provision to Tentative Order, Section VII. Compliance Determination:

- K. **Title 22 Disinfected Tertiary Recycled Water, or Equivalent (Section IV.C.4.a and Section IV.C.6.a).** Compliance with the final effluent limitations for total coliform organisms and the turbidity operational requirements shall verify compliance with Special Provisions VI.C.4.b and VI.C.6.a, for equivalency to Title 22 disinfected tertiary recycled water.

We believe that these revisions will ensure proper operation of the UV disinfection system without improperly dictating the manner of permit compliance.

D. The Tentative Order's Provisions Related to Priority Pollutant Reporting and Compliance Determination Should Be Modified to Be Consistent With the SIP

The Tentative Order includes provisions related to reporting and compliance determinations for priority pollutants that are inconsistent with the SIP and may cause confusion regarding to compliance expectations. The following provides a brief overview of the relevant SIP requirements and our suggested revisions.

The SIP states: "Dischargers shall be deemed out of compliance with an effluent limitation, if the concentration of the priority pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the RL [reporting level]."²⁴ The SIP does not define "reporting level," but explains that, subject to certain exceptions, the RL is to be selected from the MLs in Appendix 4 of the SIP.²⁵ When there is more than one ML for a constituent, the SIP requires the Central Valley Water Board to "include as RLs, in the permit, all ML values, and their associated analytical methods, listed in Appendix 4 that are below the calculated effluent limitation."²⁶ "The *discharger* may select any one of those cited analytical methods for

²³ *Ibid.*

²⁴ SIP, § 2.4.5.1 at p. 26.

²⁵ SIP, § 2.4.2 at p. 23.

²⁶ *Ibid.*

compliance determination.”²⁷ If no ML is below the effluent limitation, the RL becomes the “lowest ML value, and its associated analytical method, listed in Appendix 4.”²⁸

The exceptions to selecting an RL from the MLs in Appendix 4 of the SIP are when: (1) the constituent is not included in Appendix 4; (2) the permittee agrees to use a test method that is more sensitive than those specified in the federal regulations; (3) the permittee agrees to use an RL that is lower than the MLs in Appendix 4; (4) the permittee demonstrates that the calibration standard matrix is sufficiently different from that used to establish the ML in Appendix 4 and proposes an appropriate ML for their matrix; and (5) the permittee uses a method whose quantification practices are not consistent with the definition of an ML.²⁹ Accordingly, the SIP generally requires that the Central Valley Water Board obtain the permittee’s agreement before using an ML that is lower or different than any ML in Appendix 4 for the constituent.

Under the SIP, permits are to require permittees to report with each sample result the RL and laboratory’s current method detection level.³⁰ Further, the SIP states: “Sample results greater than or equal to the RL shall be reported as measured by the laboratory (i.e., the measured chemical concentration in the sample).”³¹

To make the Tentative Order consistent with these provisions of the SIP, and to eliminate any confusion regarding the SIP’s application, CVCWA requests that you revise the proposed definition for “reporting level” as follows:

Reporting Level (RL)

RL is the value that the Discharger must report with each sample result for priority pollutants consistent with Sections 2.4.1 and 2.4.4 of the SIP and that is used in determining whether the Discharger has complied with effluent limitations established in this Order. The RL is selected from the MLs listed in Appendix 4 of the SIP in accordance with Section 2.4.2, or established in accordance with Section 2.4.3, of the SIP. If there is more than one ML listed in Appendix 4, or if deviation from the MLs listed in Appendix 4 occurs, the Discharger must agree to the ML selected in order for it to apply. RL is the ML (and its associated analytical method) chosen by the Discharger for reporting and compliance determination from the MLs included in this Order. The MLs included in this Order correspond to approved analytical methods for reporting a sample result that are selected by the Central Valley Water Board either from Appendix 4 of the SIP in accordance with section 2.4.2 of the SIP or established in accordance with section 2.4.3 of the SIP. The ML is based on the proper application of method-based analytical

²⁷ *Ibid.*, emphasis added.

²⁸ *Ibid.*

²⁹ SIP, § 2.4.3 at p. 24.

³⁰ SIP, § 2.4.1 at p. 23.

³¹ SIP, § 2.4.4 at p. 26, emphasis added.

procedures for sample preparation and the absence of any matrix interferences. Other factors may be applied to the ML depending on the specific sample preparation steps employed. For example, the treatment typically applied in cases where there are matrix-effects is to dilute the sample or sample aliquot by a factor of ten. In such cases, this additional factor must be applied to the ML in the computation of the RL.³²

We request that you revise the Reporting Protocol specified in the monitoring and reporting program of the Tentative Order as follows:

- 3. Reporting Protocols.** The Discharger shall report with each sample result the applicable Reporting Level (RL) ~~reported Minimum Level (ML)~~ and the current Method Detection Limit (MDL), as determined by the procedure in 40 CFR Part 136.

The Discharger shall report the results of analytical determinations for the presence of chemical constituents in a sample using the following reporting protocols:

- a.** Sample results greater than or equal to the RL ~~reported ML~~ shall be reported as measured by the laboratory (i.e., the measured chemical concentration in the sample).³³

In addition, we request that you revise Section D. Other Reports in the monitoring and reporting program as follows:

- 3.** Within 60 days of permit adoption, the Discharger shall submit a report outlining reporting levels ~~minimum levels~~, method detection limits, and analytical methods for approval, with a goal to achieve detection levels below applicable water quality criteria. The At a minimum, the Discharger shall comply with the monitoring and reporting requirements for CTR constituents as outlined in Section 2.3 and 2.4 of the SIP, respectively. This includes the selection of MLs from the MLs listed in Appendix 4 of the SIP unless the Central Valley Water Board and Discharger agree to deviate from the MLs listed in Appendix 4 in accordance with Section 2.4.3 of the SIP.³⁴

We further request that you revise the “additional study requirements” specified in Attachment I of the Tentative Order as follows:³⁵

³² See Tentative Order at p. A-4.

³³ See Tentative Order at p. E-15.

³⁴ See Tentative Order at p. E-19.

³⁵ Use of an acronym other than “RL” in Attachment I of the Tentative Order may eliminate potential confusion between the provisions related to “reporting levels” and those related to “reporting limits.”

- I. **Background.** Sections 2.4.1 through 2.4.4 of the SIP provide the minimum standards for analyses and reporting related to compliance determination. (Copies of the SIP may be obtained from the State Water Resources Control Board, or downloaded from <http://www.waterboards.ca.gov/iswp/index.html>). The Discharger is to follow the reporting protocol established in Section 2.4.4 of the SIP and Section II (Monitoring Requirements) below for purposes of compliance determination.

To implement the SIP, effluent and receiving water data are needed for all priority pollutants. Effluent and receiving water pH and hardness are required to evaluate the toxicity of certain priority pollutants (such as heavy metals) where the toxicity of the constituents varies with pH and/or hardness. Section 3 of the SIP prescribes mandatory monitoring of dioxin congeners. In addition to specific requirements of the SIP, the Central Valley Water Board is requiring the following monitoring solely for purposes of effluent and receiving water characterization related to reasonable potential determinations for the next permit renewal:

- B. **Criterion Quantitation Limit (CQL).** The criterion quantitation limits will be equal to ~~or lower than~~ the minimum levels (MLs) in Appendix 4 of the SIP or the detection limits for purposes of reporting (DLRs) below the controlling water quality criterion concentrations summarized in Table I-1 of this Order, or lower upon the Discharger's agreement. In cases where the controlling water quality criteria concentrations are below the detection limits of all approved analytical methods, the best available procedure will be utilized that meets the lowest of the MLs and DLR. Table I-1 contains suggested analytical procedures. The Discharger is not required to use these specific procedures as long as the procedure selected achieves the desired minimum detection level.³⁶

³⁶ See Tentative Order at pp. I-1, I-7.

We appreciate your consideration of these comments and requested revisions. Please contact me at (530) 268-1338 or eofficer@cvcwa.org if I can be of further assistance.

Sincerely,



Debbie Webster,
Executive Officer

cc (via electronic mail):

Vickie Caulfield, El Dorado Irrigation District

vcaulfield@eid.org)

Pamela Creedon, Central Valley Regional Water Quality Control Board

pcreedon@waterboards.ca.gov)