Central Valley Regional Water Quality Control Board
25/26 July 2013 Board Meeting

Response to Comments
for the
City of Yuba City
Wastewater Treatment Facility
Tentative Waste Discharge Requirements

The following are Regional Water Quality Control Board, Central Valley Region (Central Valley Water Board) staff responses to comments submitted by interested parties regarding the tentative Waste Discharge Requirements for National Pollutant Discharge Elimination System Permit No. CA0079260 (NPDES Permit) renewal for the City of Yuba City, Wastewater Treatment Facility (Facility), in Sutter County.

The tentative NPDES Permit was issued for a 30-day public comment period on 20 May 2013 and comments were due 19 June 2013.

The Central Valley Water Board received timely comments regarding the tentative NPDES Permit by the due date from the following interested parties:

- City of Yuba City (City)
- Central Valley Clean Water Association (CVCWA)
- United States Environmental Protection Agency (USEPA), Region IX

Changes were made to the tentative NPDES Permit based on public comments received. The submitted comments were accepted into the record, and are summarized below, followed by Central Valley Water Board staff responses.

CITY COMMENTS

City Comment No. 1. <u>Manganese Effluent Limitation</u>

The City requests that the proposed NPDES Permit should contain the same manganese effluent limit at 200 µg/L specified in their existing NPDES Permit (Order R5-2007-0134-01) instead of the proposed performance-based manganese effluent limit at 100 ug/L. The City contends that compliance with the proposed manganese effluent limitation will require a commensurate reduction in the manganese local limits applied to industries in the service area that may result in unnecessary modification to local industry operations. The City further contends that applying a dilution credit of 221 is appropriate for calculating the manganese effluent limitation, and that the 200 µg/L annual average limit is well under the 10% level necessary to protect water quality.

RESPONSE: Central Valley Water Board staff concurs. Changes were made to Section IV.A.1.i. Final Effluent Limitations – Discharge Point Nos. 001, 002, and 003

in the proposed NPDES Permit, as shown in underline/strikethrough format below, and throughout the proposed NPDES Permit as appropriate:

i. Manganese, Total Recoverable. For a calendar year, the annual average effluent concentration shall not exceed 200 ~~100~~ µg/L.

City Comment No. 2. Total Coliform Limitation

The City requests that Section VII.D. Total Coliform Organisms Effluent Limitations of the proposed NPDES Permit contain the same compliance determination language in Order R5-2007-0134-01 that stated that the previous seven samples were used for determining the 7-day median instead of the median of the last seven calendar days.

RESPONSE: Central Valley Water Board staff does not concur. The revised total coliform organisms effluent limitations compliance determination language was revised to best reflect Department of Public Health's Title 22 intention of determining the median total coliform organisms present over the past seven calendar days. In the case of Order R5-2007-0134-01 compliance determination for total coliform organisms effluent limitations, the Discharger would collect 3 samples a week so the 7-day median would not represent the past seven calendar days, rather 2 weeks plus of data, which is not akin to Department of Public Health's intent for a 7 calendar day median. No changes were made to the proposed NPDES Permit.

City Comment No. 3. Editorial Comments

The City submitted the three following editorial comments.

1. Section VI.C.2.a (pages 20 and 21). The numbering of the subheaders contains two "i". Please renumber as appropriate.

2. Monitoring and Reporting Program, Table E-2 (pages E-4 through E-5). The footnote numbering is not correct. For electrical conductivity, the Grab has a footnote of 6, however Table E-2 has no footnote 6. Please check if it should be footnote 5.

3. Monitoring and Reporting Program, Table E-3 (pages E-5 through E-7). For priority pollutant constituents with effluent limitations, detection limits shall be below the effluent limitations. If the lowest minimum level (ML) published in Appendix 4 of the Policy of Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (State Implementation Plan or SIP) is not below the effluent limitation the ~~detection~~ reporting limit shall be the lowest ML per Section 2.4.2 of the SIP. For priority pollutant constituents without effluent limitations, the ~~detection~~ reporting limits shall be equal to or less than the lowest ML published in Appendix 4 of the SIP.

RESPONSE: Central Valley Water Board staff concurs and the corresponding changes for Items 1 and 2 above have been made to the proposed NPDES Permit. Item 3 has been addressed by the response to CVCWA's Comment No. 4 which includes a complete revision of Footnote 7 to Table E-3.

CVCWA COMMENTS

CVCWA Comment No. 1. Land Discharge Specification to Disposal Ponds

CVCWA contends that the following land discharge prohibition in the tentative NPDES Permit is duplicative of the surface water and groundwater receiving water limitations:

> "[d]ischarge of waste classified as 'hazardous' as defined in section 2521(a) of Title 23, California Code of Regulations (CCR), or 'designated,' as defined in section 13173 of the [California Water Code], to the disposal ponds is prohibited."

CVCWA requests that the proposed NPDES Permit remove the reference to 'designated waste' in the land discharge prohibition.

RESPONSE: The Central Valley Water Board staff concurs. Changes were made to Section IV.B.2. Land Discharge Specifications – Discharge Point No. 002 in the proposed NPDES Permit, as shown in underline/strikethrough format below:

2. The discharge of waste classified as "hazardous" as defined in section 2521(a) of Title 23, California Code of Regulations (CCR)~~, or "designated", as defined in section 13173 of the CWC,~~ to the disposal ponds is prohibited.

CVCWA Comment No. 2. Definition of Reporting Level

CVCWA contends that the tentative NPDES Permit specified definition of "Reporting Level" (RL) is inconsistent with the SIP. CVCWA is concerned that this definition cause confusion with respect to identifying appropriate RLs for reporting data under the Monitoring and Reporting Program (MRP). CVCWA requests that the definition for "Reporting Level" be revised in the proposed NPDES Permit.

RESPONSE: Central Valley Water Board staff concurs. The definition of Reporting Level (RL) has been deleted and is not contained in the proposed NPDES Permit.

CVCWA Comment No. 3. <u>Approach to Application of Dilution Credits</u>

CVCWA contends that the Central Valley Water Board's practice of restricting dilution credits based on existing facility performance is unreasonable and inappropriate. CVCWA further contends that mixing zones, including their size, are tied directly to protecting beneficial uses, and that nothing in the SIP or State Board orders addressing mixing zones suggest or supports the notion that mixing zones should be limited based on facility performance. CVCWA further contends that the tentative NPDES Permit fails to clearly explain the basis for establishing more stringent performance-based effluent limitations. CVCWA requests that the effluent limitations for dichlorobromomethane, manganese, and nitrite from Order No. R5-2007-0134-01 be retained in the proposed NPDES Permit and that triggers based on performance plus a safety factor also be included.

RESPONSE: Central Valley Water Board Staff does not concur. However, CVCWA and the Central Valley Water Board staff are currently in discussion to come to a mutually agreeable resolution to the application of dilution credits. In this case, Central Valley Water Board staff considered the projected maximum effluent concentration and the receiving water's assimilative capacity for each individual pollutant in the determination of appropriately-sized mixing zones, plus a safety factor when needed. The consideration of these factors is necessary to avoid allocating an unnecessarily large portion of the receiving water's assimilative capacity for each pollutant and possibly violate the Antidegradation Policy.

The Discharger requested a dilution credit of 221:1 for parameters associated with human health criteria. A human health dilution credit of 221:1 resulted in effluent limitations that far exceed concentrations necessary for compliance. Maximum daily effluent limitations computed with a dilution credit of 221:1 exceed maximum observed effluent concentrations by approximately 3,500% and 9,200% for dichlorobromomethane and nitrite, respectively. The proposed NPDES Permit proposes human health dilution credits of 16.9 and 10 for dichlorobromomethane and nitrite, respectively. These dilution credits result in final maximum daily effluent limitations that are approximately 33% and 350% greater than the observed maximum effluent concentrations for dichlorobromomethane and nitrite, respectively. However, the proposed dilution credits result in effluent limitations that allocate less than 10% of the remaining assimilative capacity for each pollutant in the receiving water.

The Discharger did not contest the proposed truncation of dilution credits based on Facility performance, with the exception of manganese. The Discharger was concerned about a safety factor and possible business closures with the proposed annual manganese limit of 100 µg/L (see City Comment No. 1). Therefore, Central Valley Water Board staff propose to retain the manganese effluent limitation in Order No. R5-2007-0134-01 of 200 µg/L in the proposed NPDES Permit as requested by the City. No other changes were made to the proposed NPDES Permit.

CVCWA Comment No. 4. <u>Monitoring and Reporting Program</u>

CVCWA contends the Monitoring and Reporting Program (MRP) attached to the tentative NPDES Permit includes provisions that are inconsistent with the SIP. For instance, in footnote 7 of Table E-3, the MRP states that if the lowest ML published in Appendix 4 of the SIP is not below the effluent limitation, "the detection limit shall be the lowest ML." This provision is contrary to the language in the SIP. Rather, under section 2.4.2 of the SIP, if no ML value is below the effluent limitation, the SIP provides that the reporting limit shall be the lowest ML. This distinction between the RL and a method detection limit (MDL) is essential for reporting data under the protocols in the SIP. Samples that are greater than or equal to the RL must be reported as measured, whereas samples that are less than a laboratory's MDL must be reported as not detected. CVCWA requests that footnote 7 to Table E-3 be revised.

RESPONSE: Central Valley Water Board staff concurs. Changes were made to Footnote 7 to Table E-3 Effluent Monitoring of the proposed NPDES Permit similar to the revisions proposed by CVCWA, as shown in underline/strikethrough format below:

[7] <u>For priority pollutant constituents the reporting level shall be consistent with Sections 2.4.2 and 2.4.3 of the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (See Attachment I, Table I-1).</u>~~For priority pollutant constituents with effluent limitations, detection limits shall be below the effluent limitation. If the lowest minimum level (ML) published in Appendix 4 of the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (State Implementation Plan or SIP) is not below the effluent limitation, the detection limit shall be the lowest ML. For priority pollutant constituents without effluent limitations, the detection limits shall be equal to or less than the lowest ML published in Appendix 4 of the SIP.~~

USEPA COMMENTS

USEPA Comment No. 1. <u>Mercury Effluent Data Censoring</u>

USEPA contends that the Central Valley Water Board has censored two mercury effluent data points as outliers based solely on statistical evaluation practices and without suggesting a plausible reason why the data points should be discarded. USEPA is concerned that the practice of discarding high data points as outliers from the reasonable potential analysis would result in a lack of water quality protection and would violate NPDES permitting regulatory requirements.

RESPONSE: Central Valley Water Board staff does not concur. The Central Valley Water Board staff believes that the Fact Sheet of the proposed NPDES Permit

provides sufficient justification to exclude the two mercury outliers and that the exclusion of the two data points are within the discretion allowed by the SIP. Section 1.2 of the SIP states that "When implementing the provisions of this Policy [the SIP], the RWQCB shall use all available, valid, relevant, representative data and information, as determined by the RWQCB. The RWQCB shall have discretion to consider if any data are inappropriate or insufficient for use implementing this Policy [the SIP]." The State Water Resources Control Board's intent to grant the Central Valley Water Board full discretion to determine that data is representative is disclosed in the Draft SIP Supplement 1 to Appendix G to January 31, 2000 Functional Equivalent Document (FED) titled Responses to Public Comments on 1999 Draft Policy and FED. In response to comment 155d the State Water Resources Control Board states that "Additionally, the proposed policy [SIP] gives the RWQCB the ultimate discretion to determine if a limitation is required. Therefore, RWQCB staff determines if the data set submitted by the discharger is representative of the discharge and receiving water quality."

In the case of the mercury reasonable potential analysis, the Central Valley Water Board staff has determined that the two monitoring sample results (January and November 2009) are not representative of the treatment facility performance and subsequent effluent discharge based on robust effluent monitoring data results (95 effluent concentrations including the two outliers) and an analysis of the facility's 98% removal efficiency treatment system performance. The two outliers are over six standard deviations from the next highest analytical result.

Additionally, the two outliers are not representative of the Facility's treatment system performance. The Discharger conducted a Local Limits study that showed the Facility's treatment system removes 98% of mercury before it reaches the effluent. The maximum influent concentration analyzed in the 50 samples obtained between June 2003 and March 2013 was 2.1 µg/L, which occurred on 6 March 2013. Based on the Facility's treatment system 98% removal efficiency, the highest effluent concentration would have been 0.042 µg/L; the effluent discharge on 6 March 2013 contained mercury concentrations at 0.0044 µg/L, which is 99.8% efficiency removal. Thus, the two outliers, concentrations at 0.094 and 0.092 µg/L, are at a minimum more than double the highest effluent concentration representative of the Facility's influent 98% removal efficiency rate.

Finally, removal of these two outliers does not result in impacting water quality and thus is protective of the beneficial uses because the existing mercury mass-based limit in the proposed NPDES Permit holds the facility to more stringent waste load requirements. No changes were made to the proposed NPDES Permit.