

Central Valley Regional Water Quality Control Board
27/28 March 2014 Board Meeting

Response to Written Comments on
Tentative Waste Discharge Requirements for
City of Alturas
City of Alturas Wastewater Treatment Plant
Modoc County

At a public hearing scheduled for 27/28 March 2014, the Regional Water Quality Control Board, Central Valley Region (Central Valley Water Board) will consider adoption of tentative Waste Discharge Requirements (NPDES No. CA0078921) for the City of Alturas Wastewater Treatment Plant. This document contains responses to written comments received from interested parties in response to the Tentative Order. Written comments from interested parties were required to be received by the Central Valley Water Board by 14 February 2014 in order to receive full consideration. Comments were received prior to the deadline from:

1. U.S. EPA (received 7 February 2014)
2. Central Valley Clean Water Association (CVCWA) (received 14 February 2014)

Written comments from the above interested parties are summarized below, followed by the response of Central Valley Water Board staff.

U.S. EPA COMMENTS

USEPA COMMENT #1 – Compliance Schedule

U.S. EPA states that the compliance schedules in the proposed permit do not comply with federal regulations 40 CFR 122.47, which require specific interim milestones in compliance schedules. U.S. EPA states that the interim milestones for the compliance schedule for BOD₅, TDS, TSS, and Operations Specifications for Turbidity should be modified to delineate more action items and associated due dates rather than “progress reports.” Additionally, U.S. EPA strongly recommends that “evidence of funding” be included in the compliance schedules.

RESPONSE

Central Valley Water Board staff has modified the compliance schedule table of the proposed NPDES Permit to include an additional line item that requires the Discharger to submit a financing plan (“evidence of funding”) by a designated due date.

USEPA COMMENT #2 – Reasonable Potential Analysis

U.S. EPA is concerned that effluent limits for aldrin, arsenic, mercury, bis (2-ethylhexyl) phthalate, carbon tetrachloride, and dichlorobromomethane are not included in the proposed permit. U.S. EPA contends with the rationale provided by the Central Valley Water Board that due to the limited nature of the data set for the above constituents, reasonable potential should not be established. Additionally, U.S. EPA notes that there

has been sufficient time between their last review of this permit (2012) and present for the Central Valley Water Board to request and review additional monitoring data and “thereby produce an improved data set and more up-to-date reasonable potential analysis.”

RESPONSE

As U.S. EPA noted, no additional monitoring for aldrin, arsenic, mercury, bis (2-ethylhexyl) phthalate, carbon tetrachloride, and dichlorobromomethane was conducted by the Discharger since the last review of this tentative permit in 2012. Central Valley Water staff agrees that additional data on these parameters would have increased the size of the limited data sets and been helpful in order to conduct an updated reasonable potential analysis (RPA), however; additional monitoring on behalf of the Discharger did not occur during this time frame. Therefore the data sets remain limited, as they were in 2012 and staff has determined, in accordance with SIP Section 1.2, the data sets for the subject parameters are inappropriate or insufficient for use in conducting a RPA and implementing the SIP. The justification for discretion is provided in Fact Sheet section IV.C.3.c for each parameter. In implementing its discretion, the Central Valley Water Board is not finding that the parameters do not exhibit reasonable potential to cause or contribute to an exceedance of a water quality criterion; rather the Central Valley Water Board cannot make such a determination given the limited data sets at this time.

In accordance with SIP section 1.3, Step 8, the Central Valley Water Board is requiring additional monitoring for these parameters in place of an effluent limit. The proposed permit requires the Discharger to conduct a Constituent Study for the subject parameters, which includes quarterly parameter monitoring for 3 years. The additional monitoring requirement will produce an improved data set and allow for a more up-to-date RPA. The proposed permit also includes a reopener provision to allow for the addition of effluent limits if it is determined, based on the results of the Constituent Study, that the discharge has reasonable potential to cause or contribute to an exceedance of a water quality objective.

USEPA COMMENT #3 – Monitoring Provisions

In light of the fact that the Pit River is 303d listed for nutrients, low dissolved oxygen, and elevated temperature, U.S. EPA states the proposed permit should include additional effluent monitoring for total Kjeldahl nitrogen (TKN) and total phosphorus and additional receiving water monitoring for total nitrogen and total phosphorus.

RESPONSE

Central Valley Water Board staff concur and have modified *Table E-3. Effluent Monitoring Requirements* and *Table E-5. Receiving Water Monitoring Requirements* as outlined below.

Table E-3 has been modified and quarterly effluent monitoring for the following parameters has been added:

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Total Kjeldahl Nitrogen (TKN)	µg/L	Grab	1/Quarter	1
Total Phosphorus	µg/L	Grab	1/Quarter	1

Additionally, Table E-5 has been modified and quarterly receiving water monitoring for the following parameters has been added:

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Total Nitrogen	µg/L	Grab	1/Quarter	3
Total Phosphorus	µg/L	Grab	1/Quarter	3

CVCWA COMMENTS

CVCWA COMMENT #1 – Definition of Reporting Level

CVCWA states that part of the definition for Reporting Level (RL), as documented in Attachment A, “lacks clarity and direction.” Accordingly, CVCWA requests the language be revised to eliminate any confusion and make the proposed permit consistent with the SIP.

RESPONSE

Central Valley Water Board staff concur and have removed the RL definition from Attachment A as shown in strikethrough format below:

~~Reporting Level (RL)~~

~~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 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.~~

The RL is discussed in more detail in Attachment E, section X.D.2, of the proposed NPDES Permit. This additional discussion of the RL justifies removal of the RL definition from Attachment A.

CVCWA COMMENT #2 – Monitoring and Reporting Program (MRP) Provisions

CVCWA states that certain provisions in the Monitoring and Reporting Program (MRP) of the proposed permit are inconsistent with the SIP. First, CVCWA states that the language in the MRP inappropriately references the method detection limit (MDL) instead of the reporting limit (RL) in footnote 8 of Table E-3, and that “distinction between the RL and a method detection limit (MDL) is essential for reporting data under the protocol in the SIP.” Additionally, CVCWA disagrees with the language of the MRP in footnote 9 of Table E-5 which suggests the Central Valley Water Board may set RLs less than the MLs listed in Appendix 4 of the SIP under any condition.

RESPONSE

Central Valley Water Board staff concur. Footnote 8 of Table E-3 of the proposed NPDES Permit has been modified as shown below in underline/strikethrough format:

- 8 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 Effluent and Receiving Water Characterization, Attachment E, section IX.C., Table 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 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. Sampling and analysis of bis (2-ethylhexyl) phthalate shall be conducted using ultra-clean techniques that eliminate the possibility of sample contamination.~~

Additionally, footnote 9 of Table E-3 of the proposed NPDES Permit has been modified as shown below in underline/strikethrough format:

- 9 ~~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 Effluent and Receiving Water Characterization, Attachment E, section IX.C.). Pollutants shall be analyzed using the analytical methods described in 40 CFR Part 136; for priority pollutants the methods must meet the lowest MLs specified in Appendix 4 of the SIP, where no methods are specified for a given pollutant, by methods approved by this Central Valley Water Board or the State Water Board.~~

CVCWA COMMENT #3 – Inconsistent Monitoring Frequency for Priority Pollutants

CVCWA states the required monitoring frequency for priority pollutants in the receiving water is inconsistently documented in the proposed NPDES Permit. Table E-7 requires semiannual monitoring during the third year of the permit term whereas Table E-5 requires semiannual monitoring during the fourth year of the permit term.

RESPONSE

Central Valley Water Board staff concur. Footnote 8 of Table E-5 of the proposed NPDES Permit has been modified as shown below in underline/strikethrough format:

- 8 ~~Priority pollutants shall be sampled twice during the 1st and 2nd quarters (once per quarter) of the fourth year of the permit term at Monitoring Location RSW-001, concurrently with effluent monitoring for priority pollutants. See monitoring frequency in Effluent and Receiving Water Characterization Study, Attachment E, Section IX.C. for more detailed requirements related to performing priority pollutant monitoring.~~

CVCWA COMMENT #4 – Collection System

CVCWA recommends revisions to the Tentative Order to avoid “duplicative regulation” and “possible third party lawsuits” pertaining to the management and operation of the Discharger’s collection system. In general, CVCWA contends that the Discharger’s collection system is regulated pursuant to Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, Order No. 2006-0003-DWQ and, therefore, should not be considered a component of the facilities and systems of treatment and control to achieve compliance with the conditions of the Tentative Order.

RESPONSE

Central Valley Water Board staff agrees with CVCWA’s goal to prevent duplicative regulation and that collection system discharges are adequately prohibited under the Collection Systems Order. Central Valley Water Board staff is working with State Water Board staff and CVCWA to determine the best way to address the potential duplicative regulation concern in NPDES permits. Staff has completed changes to remove

duplicative regulatory language regarding collections systems in section III.A. and section VI.C.5.c, and in Fact Sheet section VII.B.5.b (see revisions below). Staff have chosen not to make the recommended revision to the language in Fact Sheet section IV.A.1 pending further discussion and resolution with the State Water Board, CVCWA, and U.S.EPA about potentially duplicative regulation for collection systems.

Page 8, Section III.A. Language changed as follows:

A. Discharge of wastewater from the Facility, as the Facility is specifically described in the Fact Sheet, at a location or in a manner different from that described in this Order is prohibited.

Page 22, Section VI.C.5.c. Changed the following language regarding collection system requirements:

Collection System. On 2 May 2006, the State Water Board adopted State Water Board Order No. 2006-0003-DWQ, Statewide General WDRs for Sanitary Sewer Systems. The Discharger shall be subject to the requirements of Order No. 2006-0003-DWQ and any future revisions thereto. Order No. 2006-0003-DWQ requires that all public agencies that currently own or operate sanitary sewer systems apply for coverage under the general WDRs. The Discharger has applied for and has been approved for coverage under Order 2006-0003-DWQ for operation of its wastewater collection system. The Discharger's collection system is part of the system that is subject to this Order. As such, the Discharger must properly operate and maintain its collection system (40 C.F.R. § 122.41(e)). The Discharger must report any non-compliance (40 C.F.R. § 122.41(l)(6) and (7)) and mitigate any discharge from the collection system in violation of this Order (40 C.F.R. § 122.41(d)). See the Order at Standard Provision VI.A.2.c and Attachment D, subsections I.D, V.E, V.H, and I.C.

Page F-66, Fact Sheet section VII.B.5.b. Changed the following language regarding collection system requirements:

Furthermore, the General Order contains requirements for operation and maintenance of collection systems and for reporting and mitigating sanitary sewer overflows. ~~Inasmuch that the Discharger's collection system is part of the system that is subject to this Order, certain standard provisions are applicable as specified in Provisions, section VI.C.5. For~~

~~instance, the 24-hour reporting requirements in this Order are not included in the General Order. The Discharger must comply with both the General Order and this Order. The Discharger and public agencies that are discharging wastewater into the facility were required to obtain enrollment for regulation under the General Order by 1 December 2006. The Discharger is enrolled under State Water Board General Order No. 2006-0003-DWQ.~~

CVCWA COMMENT #5 – Reasonable Potential Analysis for Pathogens

The tentative Order includes the conclusion that the possibility of inadequate disinfection creates the potential for pathogens to be discharged, and thus, the discharge has reasonable potential to cause or contribute to an exceedance of the Basin Plan's narrative toxicity objective. CVCWA contends that the regulation of pathogens is not related to toxicity. CVCWA's basis for this contention is summarized below.

The Water Quality Control Plan for the Sacramento River and San Joaquin River Basins (Basin Plan) provides the following water quality objective for toxicity: "[a]ll waters shall be maintained free of toxic substances in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life." The toxicity objective relates to "toxic substances." "Toxicity" means "any toxic (adverse) effect that a chemical or physical agent might produce within a living organism."¹ CVCWA provides that biological organisms such as pathogens are not chemical or physical agents. Further, the comment describes that biological organisms invade and multiply in hosts, which can cause damage, but the organisms themselves are not toxic. Ergo, the organism's action within the host causes a detrimental physiological response.

CVCWA also provides that California Department of Toxic Substances Control's strategic plan does not mention regulation of bacteria or pathogens; USEPA's TSD does not consider pathogens as toxicants; and USEPA's National Toxics Rule² and California Toxics Rule³ do not include pathogens within the list of priority pollutants.

CVCWA describes that the RPA for pathogens should be based on the numeric bacteria objective in the Basin Plan. Or, if the board determines that a more stringent objective should be applied, then it should adopt limits based on a more stringent objective in compliance with California Water Code section 13241 and applicable State Water Board Orders. CVCWA request that the following language from page F-34 of the Fact Sheet

¹ Williams et al., Principles of Toxicology: Environmental and Industrial Applications (2d ed. 2000) p. 3, emphasis added.

² See 40 C.F.R. § 131.36.

³ See 40 C.F.R. § 131.38

be deleted: “Although the Discharger provides disinfection, inadequate or incomplete disinfection creates the potential for pathogens to be discharged and provides the basis for the discharge to have a reasonable potential to cause or contribute to an exceedance of the Basin Plan’s narrative toxicity objective.”

RESPONSE

Central Valley Water Board staff are working with CVCWA to further define this comment and its potential application to NPDES permits. However, Staff has removed related language from page F-34 (Fact Sheet section IV.C.3.d.iv (b)) of the Tentative Order as follows:

~~“Although the Discharger provides disinfection, inadequate or incomplete disinfection creates the potential for pathogens to be discharged and provides the basis for the discharge to have a reasonable potential to cause or contribute to an exceedance of the Basin Plan’s narrative toxicity objective.”~~ Therefore, the Central Valley Water Board finds the discharge has reasonable potential for pathogens and WQBELs are required.

The above revision does not include deletion of the entire sentence as recommended. Central Valley Water Board staff are recommending only a partial change to CVCWA’s recommendation because the potential for the discharge of pathogens from the facility is a concern regardless of whether the Basin Plan toxicity objective is applicable. In its comment, CVCWA contends that the Basin Plan’s narrative toxicity objective should not be used in the reasonable potential analysis. CVCWA’s comment does not argue against the finding that “inadequate or incomplete disinfection creates the potential for pathogens to be discharged.”

CVCWA COMMENT #6 – Ammonia Requirements

CVCWA agrees with the site-specific ammonia criteria study as outlined in the proposed permit and therefore supports the development of site-specific ammonia effluent limitations later during the permit term. Because the proposed permit does not contain effluent limitations for ammonia, CVCWA requests that all language of the proposed permit be reviewed “to eliminate any superfluous or unintended references to ammonia” (e.g. pollution prevention plans, etc.).

RESPONSE

Central Valley Water Board staff concur. Unintended references to ammonia have been removed from the proposed NPDES Permit as appropriate.

Central Valley Water Board staff has made the following modifications to the Tentative Order:

1. Page E-12, Table E-7, Attachment E section IX.C.3. Added the following priority pollutants:

1,1-Dichloroethane; 1,1-Dichloroethene; 1,1,1-Trichloroethane; 1,1,2-Trichloroethane; 1,1,2,2-Tetrachloroethane; 1,2-Dichlorobenzene; 1,2-Dichloroethane; cis-1,2-Dichloroethene; 1,2-Dichloropropane; 1,2,4-Trichlorobenzene; 1,3-Dichlorobenzene; 1,3-Dichloropropene; 1,4-Dichlorobenzene; Acrolein; Acrylonitrile; Benzene; Bromoform; Bromomethane; Carbon Tetrachloride; Chlorobenzene (monochlorobenzene); Chloroethane;

2. Page E-14, Table E-7, Attachment E section IX.C.3. Removed Diuron from sampling list. Diuron sampling already specified in Table E-7, page E-15.
3. Table E-7, Attachment E section IX.C.3. Changed effluent sample type from 24-hr composite to grab for the following parameters:

Sulfide; Chromium (VI); Cyanide

4. Table E-7, Attachment E section IX.C.3. Changed the maximum reporting level for the following parameters:

Arsenic (from 10 µg/L to 2 µg/L); Cadmium (from 0.5 µg/L to 0.25 µg/L); Mercury (from 0.5 µg/L to 0.2 µg/L); Heptachlor Epoxide (from 0.02 µg/L to 0.01 µg/L); Lindane (gamma-Hexachlorocyclohexane) (from 0.5 µg/L to 0.02 µg/L); Toxaphene (to 0.5 µg/L)

5. Page E-16, Table E-7, Attachment E section IX.C.3. Added footnote 2 which states, "Pollutants shall be analyzed using the analytical methods described in 40 CFR Part 136 or by methods approved by the Central Valley Water Board or the State Water Board." Footnote 2 applied to "Parameter" column heading of Table E-7.
6. Page F-29, Fact Sheet section IV.C.3.c.vi(b). Corrected a typo with the following edit:

In implementing its discretion, the Central Valley Water Board is not finding that ~~aldin-mercury~~ does not exhibit reasonable potential to cause or contribute to an exceedance of a water quality criterion; rather the Central Valley Water Board cannot make such a determination given the limited data set.