

Central Valley Regional Water Quality Control Board
23/24 June 2016 Board Meeting

Response to Comments
for the
Bear Valley Water District
Bear Valley Wastewater Treatment Facility
Tentative Waste Discharge Requirements

The following are Central Valley Regional Water Quality Control Board (Central Valley Water Board) staff responses to comments submitted by interested parties regarding the tentative Waste Discharge Requirements (NPDES Permit No. CA0085146) renewal for the Bear Valley Water District (Discharger), Bear Valley Wastewater Treatment Facility (Facility).

The tentative NPDES Permit was issued for a 30-day public comment period on 29 April 2016 with comments due by 31 May 2016. The Central Valley Water Board received public comments regarding the tentative Permit by the due date from the Discharger. Some changes were made to the proposed 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.

DISCHARGER COMMENTS

Discharger Comment 1. Discharge Prohibition of a Minimum Dilution Ratio of 20:1.

The tentative permit includes Discharge Prohibition III.F that prohibits discharge to Bloods Creek unless there is at least a 20:1 flow ratio. The tentative permit requires compliance with the prohibition based on the ratio of the daily average upstream Bloods Creek flow to the daily average effluent flow. The Discharger requests that the original guidance from the Department of Health Services (now the State Water Resources Control Board, Division of Drinking Water) in "Wastewater Disinfection for Health Protection" be followed as 1 part effluent in 20 parts of downstream receiving water flow (i.e., $\leq 5\%$ effluent) instead of 1 part effluent in 20 parts of upstream flow (i.e., $\leq 4.76\%$ effluent).

RESPONSE: Central Valley Water Board staff concurs and has been modified the proposed Permit accordingly.

Discharger Comment 2. Chronic Toxicity Trigger.

The proposed Permit, at Section VI.C.2.a, includes a chronic whole effluent toxicity (WET) numeric monitoring trigger of >1 chronic toxicity unit (TUc) to ensure compliance with the Basin Plan's narrative toxicity objective. The Discharger requests a change in the numeric monitoring trigger from >1 TUc to >4 TUc. The proposed Permit requires a 20:1 dilution ratio when discharging and allows dilution credits for chronic aquatic life criteria of 5:1 for aluminum, ammonia, copper and lead. Therefore, the Discharger requests a numeric monitoring trigger consistent with the dilution available and allowed in the proposed Permit. The Discharger contends this would be consistent with other similar dischargers, such as the San Andreas Sanitary District Wastewater Treatment Plant.

RESPONSE: Unlike the San Andreas Sanitary District, which provided WET test data to support an increased numeric monitoring trigger, the Discharger has not yet provided WET test data for its discharge. Therefore, though the Central Valley Water Board will provide

the Discharger with the opportunity to provide information supporting an increased toxicity trigger, the Central Valley Water Board staff does not concur that the monitoring trigger should be changed at this time.

The Discharger provided a mixing zone study estimating a 5:1 dilution ratio at 10 feet downstream of the outfall and provided sampling data for aluminum, ammonia, copper and lead for the effluent and Bloods Creek. This information was sufficient to grant a chronic aquatic life criteria mixing zone and dilution credits for these constituents. The mixing zone study demonstrates there may be sufficient hydraulic dilution to allow a chronic WET numeric monitoring trigger of >4 TUc. However, toxicity can be synergistic and/or additive when the effluent mixes with the receiving water and the same amount of dilution granted for aluminum, ammonia, copper, and lead may not exist for toxicity. The Discharger in this case has not provided any WET data to support the request for the increased numeric monitoring trigger. In order to allow the higher trigger, chronic WET testing is needed to demonstrate a numeric monitoring trigger of 4 TUc will not result in chronic toxicity outside an approved chronic aquatic life mixing zone. To do this the Discharger must conduct chronic WET testing using the dilution series required in Table E-4 of the proposed Permit, which will evaluate the toxicity of the effluent/receiving water mixture at various dilutions. The Discharger may collect this data in conjunction with the updated dilution/mixing zone study or at a later date. The proposed Permit has been modified to allow the Executive Officer to increase the chronic WET numeric monitoring trigger up to a trigger of >4 TUc provided sufficient information has been submitted by the Discharger.

Limitations and Discharge Requirements Section VI.C.2.a of the proposed permit has been modified as shown in underline/strikeout format below:

- ii. **Numeric Toxicity Monitoring Trigger.** The numeric toxicity monitoring trigger to initiate a TRE is >1 TUc (where TUc = 100/NOEC). The monitoring trigger is not an effluent limitation; it is the toxicity threshold at which the Discharger is required to begin accelerated monitoring and initiate a TRE. The Executive Officer may authorize up to a numeric toxicity monitoring trigger of >4 TUc, if the Discharger provides adequate justification as described in the Fact Sheet (Attachment F, Section VI.B.2.a).

The third paragraph of Attachment F, Section VI.B.2.a “Chronic Whole Effluent Toxicity Requirements” of the proposed permit has been modified as shown in underline/strikeout format below:

Monitoring Trigger. A numeric toxicity monitoring trigger of >1 TUc (where TUc = 100/NOEC) is applied in the provision, because this Order does not allow any dilution for ~~the chronic whole effluent toxicity condition~~. Therefore, a TRE is triggered when the effluent exhibits toxicity at 100% effluent. This Order allows a chronic aquatic life mixing zone extending 10 feet downstream of the outfall, so a higher numeric toxicity trigger may be warranted. The Discharger provided a mixing zone study estimating a 5:1 dilution at the edge of the chronic aquatic life mixing zone, which demonstrates there is sufficient hydraulic dilution to allow a numeric toxicity monitoring trigger of up to >4 TUc. However, toxicity can be synergistic and/or additive when the effluent mixes with the receiving water. Therefore, the numeric monitoring trigger may need to be established based on an effluent/receiving water mixture that is less than the available hydraulic dilution to ensure chronic toxicity

does not occur outside the mixing zone. Chronic WET testing is needed to demonstrate there is no chronic toxicity outside the approved chronic aquatic life mixing zone. To do this the Discharger must conduct chronic WET testing using the dilution series required in Table E-4 of this Order, which will evaluate the toxicity of the effluent/receiving water mixture at various dilutions. The Executive Officer may authorize the chronic WET trigger be increased to up to >4 TUC provided sufficient information has been submitted by the Discharger.

Discharger Comment 3. Maximization of Land Application.

The tentative permit includes a provision to submit an annual report demonstrating land application has been maximized. The Discharger requests removal of this requirement in the NPDES permit because similar requirements are included in Waste Discharge Requirements Order 5-01-208 that regulates discharges to land.

RESPONSE: Central Valley Water Board staff concurs the reporting requirement is duplicative to that required in WDR Order 5-01-208 and have removed the provision from the proposed NPDES permit.

Discharger Comment 4. SMRs Submittal During Non-Discharge Season (1 July through 31 December)

The Discharger requests removal of the requirement for self-monitoring reports (SMRs) submittal during the non-discharge season, 1 July through 31 December, given the discharger's limited resources.

RESPONSE: Central Valley Water Board staff concurs in part. The proposed NPDES permit includes a discharge prohibition that prohibits discharge to Bloods Creek from 1 July through 31 December. The reporting requirement is already minimized and only requires the Discharger to demonstrate compliance with the NPDES permit by submitting a cover letter and electronically certifying that no discharge occurred.

Discharger Comment 5. Land Discharge Monitoring Requirements.

The Discharger requests replacing the heading language "Land Discharge Monitoring Requirements" (Attachment E, Section VI) with "Storage/Polishing Reservoir Monitoring Requirements" to avoid conflict and confusion with the requirements established in WDR Order 5-01-208.

RESPONSE: Central Valley Water Board staff concurs and have modified the proposed NPDES permit accordingly.

Discharger Comment 6. Monitoring Location Storage/Polishing Reservoir.

The Discharger requests to change the description of the monitoring location at the "surface of the storage/polishing reservoir" because it is not representative of the discharge effluent and it presents significant safety hazards to the Discharger's staff during conditions of heavy snow

and when the pond is iced over. The Discharger states that monitoring Location EFF-001 provides for flow-through testing where samples are representative of the volume and quality of the discharge. Therefore, the Discharger requested these sections be changed to read: "...the Discharger shall monitor the storage reservoir at Monitoring Location EFF-001..."

RESPONSE: Central Valley Water Board concurs and has modified the proposed NPDES permit accordingly.

Discharger Comment 7. Grab Samples for Monitoring Locations EFF-001 and RSW-001.

The Discharger requests to delete footnote 4 in Table E-9, which states that "24-hour flow proportional composite" to avoid confusion since all the sample type requirements at EFF-001 and RSW-001 are grab samples.

RESPONSE: Central Valley Water Board staff concurs. This footnote has been removed in the proposed NPDES Permit.

Discharger Comment 8. Influent Monitoring Frequency.

The Discharger requests to change the description of the influent monitoring frequency in the Fact Sheet to match monitoring frequency description in the Monitoring and Reporting Program (Attachment E, Table E-2).

RESPONSE: Central Valley Water Board staff concurs. This change has been made in the proposed NPDES Permit.