Central Valley Regional Water Quality Control Board
22 June 2023 Board Meeting

Response to Comments
for the
Mountain House Community Services District
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 persons and parties regarding the tentative Waste Discharge Requirements, National Pollutant Discharge Elimination System (NPDES) Permit CA0084271 renewal for the Mountain House Community Services District (Discharger) Wastewater Treatment Plant (Facility).

The tentative NPDES Permit was issued for a 30-day public comment period on 2 May 2023 with comments due by 1 June 2023. The Central Valley Water Board received public comments regarding the tentative Permit by the due date from the Discharger and the Central Valley Clean Water Association (CVCWA). 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

1. Filtration System Operating Specifications for Turbidity

COMMENT: The Tentative WDRs Section VI.C.4.a, Filtration System Operating Specifications, includes turbidity specifications from the California Code of Regulations, Title 22 definition for "filtered wastewater" and can be met by a membrane bioreactor (MBR) wastewater treatment plant. Since the Discharger is in the process of replacing the existing sequencing batch reactor (SBR) treatment technology with MBR treatment technology, the current SBR Facility cannot meet these turbidity specifications until the upgraded Facility is operational. The Discharger requests that the Filtration System Operating Specifications in the proposed NPDES Permit be modified to include the turbidity specifications in the current NPDES Permit, provided below, applicable from the effective date of the NPDES Permit until the MBR Facility becomes fully operational.

"To ensure the filtration system is operating properly to provide adequate disinfection of the wastewater, the turbidity of the filter effluent measured at Monitoring Location FIL-001 shall not exceed:

i. 2 NTU as a daily average;
ii. 5 NTU more than 5 percent of the time within a 24-hour period; and
iii. 10 NTU, at any time."

RESPONSE: Central Valley Water Board staff concur and have revised the proposed Order and Attachment F (Fact Sheet), Section VI.B.4.a, accordingly. Staff have also added a requirement to submit a certification of initiation of operations of the upgraded Facility in Technical Reports Table E-11 to provide notification of the date on which the Facility will comply with the more stringent filtration system operating specifications.

2. Median Monthly Monitoring Target

COMMENT: The Discharger requests that the Median Monthly Monitoring Target (MMET) be explained in Section V of the Monitoring and Reporting Program (Attachment E).

RESPONSE: Central Valley Water Board staff concur and have revised the proposed Order to define the MMET in WDRs Section VI.C.2.a. The Statewide Toxicity Provisions were approved by U.S. EPA on 1 May 2023. Central Valley Water Board staff reviewed the aquatic toxicity language in the proposed Order and found that clarifications, edits, and additions were needed in the proposed Order to more effectively implement the Statewide Toxicity Provisions. Therefore, Central Valley Water Board staff have revised better define the MMET and other aquatic toxicity requirements in the proposed Order (see Staff Revisions section below).

Other Editorial Comments

The Discharger notes other editorial comments, cross-references, and clarifications that should be corrected in the proposed Order.

RESPONSE: Central Valley Water Board staff concur and have modified the proposed Order accordingly.

Central Valley Clean Water Association (CVCWA) COMMENTS

1. Wastewater and Biosolids Treatment and Controls

COMMENT: The tentative Order references construction of modifications to the Facility's treatment system intended to improve effluent quality – specifically, replacing the sequencing batch reactors (SBRs) with membrane bio reactors (MBRs). Based on the expected improvements, the tentative Order includes effluent limitations that meet Title 22 recycled water applications. However, under the current language of the tentative Order, those requirements would be effective immediately. (See tentative Order pages F-34 through F-49). The Facility improvements are not expected to be completed until approximately fall of 2023. The tentative Order should include an in-permit compliance schedule, if possible, and otherwise address the need for a transition following the construction and implementation of the Facility treatment system upgrades, especially for ammonia.

RESPONSE: Central Valley Water Board staff agree that some changes were needed in the proposed Order to reflect that the current SBR Facility is still in operation until the Facility upgrades to MBR are complete. Based on comments from the Discharger, Central Valley Water Board staff modified the proposed Order to include filtration system operation specifications for the current Facility and filtration system operation specifications for when the upgraded Facility is fully operational (WDRs Section VI.C.4.a). Ultraviolet (UV) disinfection system operating specifications in the proposed Order (WDRs Section VI.C.4.b) have not changed from the previous Order. Additionally, effluent limitations for total coliform organisms have not changed from the previous Order. All other effluent limits are based on effluent data from the past permit term and the current treatment Facility. A re-opener provision has been included in the proposed Order to allow for a permitted flow increase once construction upgrades are complete. The Discharger was given the opportunity to request a compliance schedule for ammonia or any other constituent upon receipt of the tentative Order and notification of the revised effluent limits. However, no such request was made by the Discharger. Therefore, staff do not concur with the proposed changes to include an in-permit compliance schedule for ammonia unless the Discharger requests one.

2. **Mercury**

COMMENT: The tentative order includes a description of the Basin Plan's Delta Mercury Control Program on page 15, with other references throughout the order and attachments. This program has progressed to Phase 2 and the description on page 15 should be updated accordingly. The tentative order contains a final water quality-based effluent limitation (WQBEL) for methylmercury based on the waste load allocation (WLA). The Regional Board should confirm with Mountain House CSD whether an interim limit and compliance schedule are necessary or desired, or if the WLA for methylmercury is preferred. If the WLA is preferred, the tentative order should provide for the expanded capacity per the Basin Plan, and remove the interim limit for mercury, the pollution prevention plan (PPP) requirements, and the compliance schedule for methylmercury included on page 21.

RESPONSE: Central Valley Water Board staff partially concur. Section VI.C.1.d. of the proposed Order has been modified to clarify that Phase 2 of the Delta Mercury Control Program (Program) is currently underway, and Phase 1 has concluded. As part of Phase 2, Central Valley Water Board Basin Planning staff are re-evaluating interim effluent limits for mercury and final effluent limits for methylmercury for dischargers that are part of the Program to assess what re-allocations are needed. As of now, no changes to the requirements of the Program have been adopted, so the current requirements continue to be implemented in NPDES permits. A re-opener provision has been included to allow re-opening of the proposed Order for any changes to the Program. The interim mercury and final methylmercury limits in the proposed Order have been included in the Discharger's NPDES permit since 2013 (Order R5-2013-0004).

3. Salinity Reduction Goal and CV-SALTS Participation

COMMENT: The tentative order includes a Salinity Reduction Goal. (Tentative Order at p. 17). This section is hard to follow and potentially contains duplicative language as well as missing words or phrases. Importantly, the inclusion of the calendar annual average of 500 µmhos/cm over source water as electrical conductivity goal is not supported and should be removed, particularly because the Discharger is also subject to a performance-based trigger of 1,200 µmhos/cm.

RESPONSE: Central Valley Water Board staff concur and have revised the proposed Order accordingly.

4. Include Reference to the Recently Adopted Statewide Waste Discharge Requirements General Order for Sanitary Sewer Systems

COMMENT: The tentative order includes reference to "Statewide General Waste Discharge Requirements for Sanitary Sewer Systems." (See Tentative Order at pp. 21, F-16.) However, the reference does not reflect the recent adoption of General Order WQ 2022-0103-DWQ, which takes effect on June 5, 2023. CVCWA recommends revising the tentative order to reflect that the Permittees are subject to the requirements of, and must comply with, State Water Board Order WQ 2022-0103-DWQ.

RESPONSE: Central Valley Water Board staff concur and have revised the proposed Order and Attachment F (Fact Sheet) Section VI.B.5.b accordingly.

1. STAFF REVISIONS – TOXICITY PROVISIONS

The tentative NPDES Permit contained Chronic Whole Effluent Toxicity requirements as per the State Water Resources Control Board's Statewide Toxicity Provisions. Staff made revisions and clarifications necessary to appropriately implement the Statewide Toxicity Provisions as follows:

Waste Discharge Requirements section IV.A.1. has been revised to include the Chronic Effluent Toxicity MMEL:

> e. **Chronic Whole Effluent Toxicity MMEL.** Effective 1 January 2024, no more than one *Ceriodaphnia dubia* chronic aquatic toxicity test initiated in a toxicity calendar month shall result in a "Fail" at the IWC for any endpoint.

Waste Discharge Requirements section VI.C.2. has been revised as follows to include Toxicity Reduction Evaluation Requirements:

> a. **Toxicity Reduction Evaluation (TRE)**:
>
> 1. **Median Monthly Effluent Target (MMET)**: Effective immediately through 31 December 2023, no more than one *Ceriodaphnia dubia* chronic aquatic

toxicity test initiated in a calendar month, analyzed using the TST approach, shall result in a "fail" at the IWC for any endpoint.

2. **TRE:** The Discharger is required to initiate a TRE, as detailed in the Monitoring and Reporting Program (Attachment E, Section V.F), when any combination of two or more MDEL or MMEL violations (following the MMEL effective date) occur within a single calendar month or within two successive calendar months or when the Discharger does not meet any combination of two or more MMET within a single calendar month or within two successive calendar months. In addition, if other information indicates toxicity (e.g., results of additional monitoring, results of monitoring at a higher concentration than the IWC, fish kills, intermittent recurring toxicity) or if there is no effluent available to complete a routine monitoring test, MMET test, or MMEL compliance test, the Executive Officer may require a TRE.

Compliance determination language for Chronic Whole Effluent Toxicity Median Monthly Effluent Limitations (MMEL) has been added to Waste Discharge Requirements Section VII as follows:

O. Chronic Whole Effluent Toxicity MMEL (Section IV.A.1.e). Effective 1 January 2024, if the result of a routine chronic whole effluent toxicity test, using the TST statistical approach, is a “Fail” at the IWC, the Discharger shall conduct a maximum of two additional MMEL compliance tests during the calendar month. If the routine test and one of the additional MMEL compliance test results in a “Fail” at the IWC, the Discharger will be deemed out of compliance with the MMEL.

Attachment A (Definitions), has been revised to remove the Statewide Toxicity Provisions definition and to include the Whole Effluent Toxicity (WET) MMEL definition as follows:

WET Median Monthly Effluent Limit (MMEL)

For the purposes of chronic and acute aquatic toxicity, MMEL is an effluent limitation based on a maximum of three independent toxicity tests analyzed using the TST approach during a toxicity calendar month.

Attachment E (Monitoring and Reporting Program), Sections V.A.2, V.A.3, and V.A.11 have been revised, and Section V.A.5 has been added, as follows:

2. **Routine Monitoring Frequency.** The Discharger shall perform routine chronic toxicity testing **once per toxicity calendar quarter** in quarters in which there is expected to be at least 15 days of discharge to the receiving water. While the Discharger is conducting a TRE, the Executive Officer may authorize a reduction in the frequency of routine monitoring to a minimum of

two (2) chronic aquatic toxicity tests per toxicity calendar year. The Discharger shall return to the routine monitoring schedule either at the conclusion of the TRE or one year after the initiation of the TRE, whichever occurs sooner.

3. **Toxicity Calendar Month.** The calendar month is defined as the period of time beginning on the day of the initiation of the routine monitoring to the day before the corresponding day of the next month if the corresponding day exists, or if not to the last day of the next month (e.g., from January 1 to January 31, from June 15 to July 14, or from January 31 to February 28).

5. **Chronic Toxicity MMEL Compliance Testing**. If a routine chronic toxicity monitoring test results in a "fail" at the IWC, then a maximum of two chronic toxicity MMEL compliance tests shall be completed. The chronic toxicity MMEL compliance tests shall be initiated within the same calendar month that the routine monitoring chronic toxicity test was initiated that resulted in the "fail" at the IWC. If the first chronic toxicity MMEL compliance test results in a "fail" at the IWC, then the second chronic toxicity MMEL compliance test is unnecessary and is waived.

11. **Replacement Test.** When a required toxicity test for routine monitoring, MMET tests, or MMEL compliance tests is not completed, a new toxicity test to replace the toxicity test that was not completed shall be initiated as soon as possible. The new toxicity test shall replace the routine monitoring, MMET tests, or MMEL compliance tests, as applicable, for the calendar month in which the toxicity test that was not completed was required to be initiated, even if the new toxicity test is initiated in a subsequent month. The new toxicity test for routine monitoring, MMET tests, or MMEL compliance tests, as applicable, and any MMET tests or MMEL compliance tests required to be conducted due to the results of the new toxicity test shall be used to determine compliance with the effluent limitations for the calendar month in which the toxicity test that was not completed was required to be initiated. The new toxicity test and any MMET tests or MMEL compliance tests required to be conducted due to the results of the new toxicity test shall not be used to substitute for any other required toxicity tests.

    If it is determined that any specific monitoring event was not initiated in the required time period due to circumstances outside of the Discharger's control that were not preventable with the reasonable exercise of care, the Discharger is not required to initiate the specific monitoring event in the required time period if the Discharger promptly initiates, and ultimately completes a replacement test.

Attachment E (Monitoring and Reporting Program), Section V.E has been revised as follows (only sections with revisions are shown):

E. Most Sensitive Species Screening. The Discharger shall perform subsequent species sensitivity screening to re-evaluate the most sensitive species. The species sensitivity screening shall be conducted at least once every fifteen years or if the effluent used in the last species sensitivity screening is no longer representative. Species sensitivity screening shall be conducted as follows and the results of the most recent sensitivity screening submitted with the Report of Waste Discharge.

2. **Determination of Most Sensitive Species.** If a single test in the species sensitivity screening testing results in a "Fail" using the TST statistical approach, then the species used in that test shall be established as the most sensitive species. If there is more than a single test that results in a "Fail", then of the species with results of a "Fail", the species that exhibits the highest percent effect shall be established as the most sensitive species. If none of the tests in the species sensitivity screening results in a "Fail", but at least one of the species exhibits a percent effect greater than **10** percent, then the single species that exhibits the highest percent effect shall be established as the most sensitive species. In all other circumstances, the Executive Officer shall have discretion to determine which single species is the most sensitive considering the test results from the species sensitivity screening.

Attachment E (Monitoring and Reporting Program), Section V.F.1 has been revised as follows and the Toxicity Evaluation Study has been removed:

F. Toxicity Reduction Evaluations (TRE)

1. TRE Implementation. The Discharger is required to initiate a TRE when any combination of two or more MDEL or MMEL violations (following the MMEL effective date) occur within a single calendar month or within two successive calendar months or when the Discharger does not meet any combination of two or more MMET within a single calendar month or within two successive calendar months. In addition, if other information indicates toxicity (e.g., results of additional monitoring, results of monitoring at a higher concentration than the IWC, fish kills, intermittent recurring toxicity) or if there is no effluent available to complete a routine monitoring test, MMET test, or MMEL compliance test, the Executive Officer may require a TRE.

Attachment F (Fact Sheet) Section IV.C.5.b.ii has been revised as follows:

ii. **WQBELs.** Effluent limitations have been established in Section IV.A.1 of this Order for chronic whole effluent toxicity to ensure compliance with the Toxicity Provisions.

The Toxicity Provisions direct the Board to include chronic toxicity effluent limitations if reasonable potential is demonstrated for chronic aquatic toxicity in accordance with the Toxicity Provisions. The Toxicity Provisions further direct the Board to apply one of four scenarios if the Board issues, reissues, renews, or reopens the NPDES permit after the effective date of the Provisions and prior to January 1, 2024. Under scenario 1, which applies to non-stormwater NPDES discharges with no numeric chronic aquatic toxicity effluent limitations in their current permit and when *Ceriodaphnia dubia* is identified as the most sensitive species, the permit must include the Chronic Whole Effluent Toxicity Maximum Daily Effluent Limitation (MDEL) and Median Monthly Effluent Target (MMET) using *Ceriodaphnia dubia* as the most sensitive species if a Median Monthly Effluent Limitation (MMEL) is not required by federal law. The MMET shall be in effect only through December 31, 2023, and starting January 1, 2024, the discharger must comply with the MMEL.

The Board has determined that Scenario 1 applies and that an MMEL is not required by federal law. Accordingly, the Discharger must comply with the MDEL and the MMET using *Ceriodaphnia dubia.* The MMET shall be in effect only through December 31, 2023. Starting January 1, 2024, the Discharger must comply with the MDEL and MMEL using *Ceriodaphnia dubia*.

The following effluent limitations have been included in Section IV.A.1:

Chronic Whole Effluent Toxicity Maximum Daily Effluent Limitation (MDEL). No *Ceriodaphnia dubia* chronic aquatic toxicity test shall result in a “Fail” at the Instream Waste Concentration (IWC) for the sub-lethal endpoint measured in the test AND a percent effect for that sub-lethal endpoint greater than or equal to 50 percent.

Chronic Whole Effluent Toxicity Monthly Median Effluent Limitation (MMEL). Effective 1 January 2024, no more than one *Ceriodaphnia dubia* chronic aquatic toxicity test initiated in a toxicity calendar month shall result in a “Fail” at the IWC for any endpoint.

Attachment F (Fact Sheet) Section VI.B.2 has been revised as follows:

2. Special Studies, Technical Reports and Additional Monitoring Requirements

a. Toxicity Reduction Evaluation (TRE)

1. **Median Monthly Effluent Target (MMET).** As explained in Fact Sheet section IV.C.5.b.ii, a Median Monthly Effluent Target (MMET) using *Ceriodaphnia dubia* as the most sensitive species has been included pursuant to the Toxicity Provisions. The MMET shall be in effect only through December 31, 2023.

2. **TRE:** Pursuant to the Toxicity Provisions, the Discharger is required to initiate a TRE when any combination of two or more MDEL or MMEL violations (following the MMEL effective date) occur within a single calendar month or within two successive calendar months. A TRE is also required when the Discharger does not meet any combination of two or more MMET within a single calendar month or within two successive calendar months. In addition, if other information indicates toxicity (e.g., results of additional monitoring, results of monitoring at a higher concentration than the IWC, fish kills, intermittent recurring toxicity), the Central Valley Water Board may require a TRE. A TRE may also be required when there is no effluent available to complete a routine monitoring test or MMET test. MRP Section V.F. provides additional details regarding the TRE.

Attachment F (Fact Sheet) Section VII.D.4 and VII.D.5 have been revised as follows:

4. **Sensitive Species Screening.** The most sensitive species to be used for chronic toxicity testing was determined in accordance with the process outlined in the MRP section V.E. The species that exhibited the highest percent effect was the water flea (Ceriodaphnia dubia), with a percent effect of 22 percent. Consequently, Ceriodaphnia dubia has been established as the most sensitive species for chronic WET testing.

   Under the Toxicity Provisions, dischargers shall perform subsequent species sensitivity screening to re-evaluate the most sensitive species if the effluent used in the species sensitivity screening is no longer representative of the effluent or if a species sensitivity screening has not been performed in the last fifteen years. Subsequent species sensitivity screening may also be required prior to every order issuance, renewal, or reopening, if reopening to address aquatic toxicity. Pursuant to Section V.E of the MRP, the Discharger is required to perform species sensitivity screening at least once every fifteen years or if the effluent used in the last species sensitivity screening is no longer representative of the effluent and submit the results with the Report of Waste Discharge.

Species sensitivity screening for chronic toxicity shall include, at a minimum, chronic WET testing four consecutive calendar quarters using the water flea (Ceriodaphnia dubia), fathead minnow (Pimephales promelas), and green alga (Pseudokirchneriella subcapitata). The tests shall be performed at an IWC of no less than 100 percent effluent and one control.

The most sensitive species to be used for chronic toxicity testing was determined in accordance with the process outlined in the MRP section V.E. The species that exhibited the highest percent effect was the water flea (Ceriodaphnia dubia), with a percent effect of 22 percent. Consequently, Ceriodaphnia dubia has been established as the most sensitive species for chronic WET testing.

5. **Toxicity Reduction Evaluation (TRE).** The Toxicity Provisions require dischargers to conduct a TRE in accordance with a TRE Work Plan, as approved by the Board. The Monitoring and Reporting Program of this Order requires preparation and implementation of a TRE Action Plan in accordance with the Discharger's 2007 approved TRE Work Plan. Within 30 days of the requirement to initiate a TRE, the Discharger shall submit to the Executive Officer a TRE Action Plan including the components identified in Section V.F of the Monitoring and Reporting Program.

2. STAFF REVISIONS – MISCELLANEOUS

Attachment F (Fact Sheet), Section III.C.1.b has been revised as follows to clarify the status of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California, as detailed in State Water Board Resolution No. 2021-0044:

b. **Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California.** The Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California (ISWEBE Plan) was adopted by the State Water Resources Control Board (State Water Board) on 1 December 2020, under authority provided by Water Code sections 13140 and 13170. Except as otherwise indicated, this ISWEBE Plan establishes provisions for toxicity, water quality and sediment quality that apply to all inland surface waters, enclosed bays, and estuaries and coastal lagoons of the state, including both waters of the United States and surface waters of the state. The State Water Board rescinded the ISWEBE Plan on 5 October 2021 in Resolution No. 2021-0044. The portions of the ISWEBE Plan, including the Toxicity Provisions, remain in effect.

Attachment F (Fact Sheet), Section IV.C.5 has been revised as follows to clarify the status of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California, as detailed in State Water Board Resolution No. 2021-0044:

5. Whole Effluent Toxicity (WET)

The State Water Board's toxicity provisions, which include numeric objectives for acute and chronic aquatic toxicity, are applicable to this discharge and are hereafter referred to as the Toxicity Provisions.