

Central Valley Regional Water Quality Control Board
22/23 April 2021 Board Meeting

Response to Comments
for the
Sacramento Regional County Sanitation District
Sacramento Regional Wastewater Treatment Plant
Tentative Waste Discharge Requirements

The following are Central Valley Regional Water Quality Control Board (Central Valley Water Board) staff responses to comments regarding the tentative Waste Discharge Requirements, National Pollutant Discharge Elimination System (NPDES) Permit CA0077682 renewal for the Sacramento Regional County Sanitation District (Discharger) Sacramento Regional Wastewater Treatment Plant (Facility).

The tentative NPDES Permit was issued for a 30-day public comment period on 2 February 2021 with comments due by 5 March 2021. 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: Reasonable Potential Analysis for Bis(2-ethylhexyl) phthalate.

The Tentative Order includes an average monthly effluent limitation of 8.9 µg/L, and a maximum daily effluent limitation of 20 µg/L for bis(2-ethylhexyl) phthalate. The Fact Sheet explains that the Tentative Order retains the effluent limits for bis(2-ethylhexyl) phthalate from previous Order R5-2016-0020-01 because there is no new information providing a reason to modify or remove the effluent limits.

The Discharger contends that the decision to find the January 2017 through February 2020 dataset insufficient and instead rely on the dataset from the previous permit renewal (January 2012 – December 2014) is not a proper application of the State's *Policy for Implementation of Toxics for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (SIP), that there is no reasonable potential for bis(2-ethylhexyl) phthalate, and effluent limitations for bis(2-ethylhexyl) phthalate should be removed from the proposed Order.

The Discharger noted that within the monitoring data for bis(2-ethylhexyl) phthalate submitted with its Report of Waste Discharge (ROWD), which included 36 grab samples of effluent collected from January 2017 through February 2020, all results were either not detected or were detected but not quantified (DNQ) data. The Tentative Order states there were multiple instances in which the laboratory method detection limit (MDL) used was greater than the applicable water quality criterion from the California Toxics Rule (CTR). The Discharger states that nothing in section

1.2 of the SIP indicates that a method detection limit above the CTR criterion is a reason to find that the reported data are inappropriate or insufficient.

The Discharger further suggests that nothing in the reasonable potential analysis procedures proscribed in section 1.3 of the SIP suggests it is appropriate to reject the newer data based on the method detection limit and use older data that predates this permit renewal process to retain the prior effluent limit, and that section 1.3 of the SIP instructs that additional monitoring should be required, not effluent limitations.

The Discharger further contends that State Water Resources Control Board Order WQ 2003-0012 *In the Matter of the Review of Own Motion of Waste Discharge Requirements Order Nos. R4-2002-0121 [NPDES No. CA0054011] and R4-2002-0123 [NPDES No. CA0055119] and Time Schedule Order Nos. R4-2002-0122 and R4-2002-0124 for Los Coyotes and Long Beach Wastewater Reclamation Plants Issued by the California Regional Water Quality Control Board, Los Angeles Region* at pp. 15-16 (Sept. 16, 2003), citing 33 U.S.C. § 1342(o)(2)(B)(i), explains that under the anti-backsliding rule and exceptions for new information, water quality-based effluent limitations may be relaxed or removed in a later permit based on new monitoring studies that show a lack of reasonable potential.

RESPONSE: Central Valley Water Board staff concurs in part. Staff concurs that the effluent dataset from the previous permit renewal (January 2012 – December 2014) should not be used for the proposed Order to support a finding of reasonable potential for bis(2-ethylhexyl) phthalate to cause or contribute to an exceedance of water quality objectives in the receiving water. However, staff do not concur that the bis(2-ethylhexyl) phthalate effluent limitations should be removed. The January 2017 - February 2020 data is insufficient to conduct a reasonable potential analysis and does not justify less stringent effluent limitations for bis(2-ethylhexyl) phthalate in the proposed Order under the federal anti-backsliding regulations.

The monitoring data for bis(2-ethylhexyl) phthalate submitted by the Discharger with its ROWD is insufficient to conduct a reasonable potential analysis and support a finding of no reasonable potential. The laboratory analyses used a Reporting Level of 5.0 µg/L, which exceeds the CTR criterion of 1.8 µg/L for bis(2-ethylhexyl) phthalate. 17 of the 36 samples were DNQ, which means the results lie between the method detection limit and the reporting level of 5.0 µg/L. DNQ data is not reliable and should not be used to conduct the RPA. However, the data indicates the discharge may be exceeding the CTR criterion. Therefore, while staff concur the January 2017 - February 2020 effluent data set does not demonstrate the discharge has reasonable potential, it is also not appropriate to make a finding of no reasonable potential based on the data. The SIP Section 1.2 allows the Regional Board discretion to find that data are insufficient to conduct a reasonable potential analysis. There were multiple detections of bis(2-ethylhexyl) phthalate in the effluent and the reporting levels were insufficient to quantify the data to verify that the results

do not exceed the CTR criterion. Therefore, the Central Valley Water Board is using its discretion allowed under the SIP to determine the data is insufficient to conduct the RPA.

With regard to the federal anti-backsliding regulations, the Clean Water Act (CWA) specifies that a revised permit may not include effluent limitations that are less stringent than the previous permit unless a less stringent limitation is justified based on exceptions to the anti-backsliding provisions contained in CWA sections 402(o) or 303(d)(4). In this case, the monitoring data for bis(2-ethylhexyl) phthalate submitted by the Discharger with its ROWD is insufficient to satisfy the exceptions to the federal anti-backsliding requirements. Specifically, section 303(d)(4) allows that a limitation based on a water quality standard may be relaxed where the action is consistent with the antidegradation policy. The Discharger has not provided new information to determine if the removal of the bis(2-ethylhexyl) phthalate effluent limitations comply with the state or federal antidegradation requirements.

The Discharger contends it has provided new information that meets the exception to backsliding under CWA section 402(o)(2)(B)(i), which allows a renewed, reissued, or modified permit to contain a less stringent effluent limitation for a pollutant if information is available which was not available at the time of permit issuance (other than revised regulations, guidance, or test methods) and which would have justified the application of a less stringent effluent limitation at the time of permit issuance. As discussed above, the monitoring data for bis(2-ethylhexyl) phthalate submitted by the Discharger with its ROWD is insufficient to conduct the reasonable potential analysis. Thus, the insufficient data does not provide new information to justify less stringent effluent limitations.

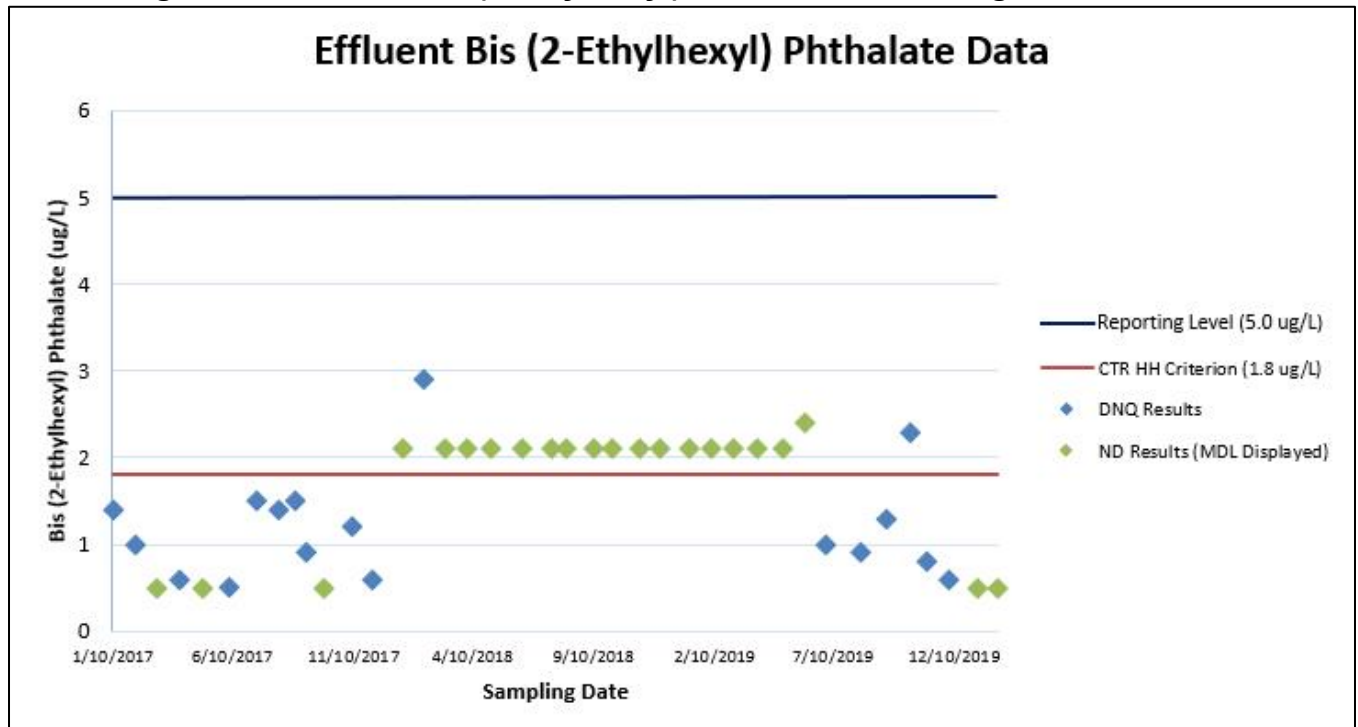
The proposed Order requires implementation of the Sufficiently Sensitive Methods (SSM) Rule per the Code of Federal Regulations (C.F.R) at 40 C.F.R. sections 122.21(e)(3) and 122.44(i)(1)(iv). The SSM Rule requires sampling using laboratory analytical methods that are sufficiently sensitive for a pollutant/parameter where the reporting levels are at or below the applicable water quality criteria. The monitoring data collected over the upcoming permit term using a reporting level that complies with the SSM Rule will provide sufficient data to conduct a reasonable potential analysis for bis(2-ethylhexyl) phthalate.

The Fact Sheet in the proposed Order has been revised to clarify the reasonable potential analysis and need to maintain the existing effluent limitations for bis(2-ethylhexyl) phthalate per the anti-backsliding requirements as shown below. The discussion regarding the reasonable potential analysis for bis(2-ethylhexyl) phthalate has also been relocated from Section IV.C.3.d of the Fact Sheet for Constituents with Reasonable Potential to Section IV.C.3.c for Constituents with No Data or Insufficient Data.

iv. **Bis(2-ethylhexyl) Phthalate**

- (a) **WQO.** The CTR includes a criterion of 1.8 µg/L for bis(2-ethylhexyl) phthalate for the protection of human health for waters from which both water and organisms are consumed.
- (b) **RPA Results.** As shown in the figure below, all effluent bis(2-ethylhexyl) phthalate samples collected from January 2017 through February 2020 were either non-detect or detected but not quantified (DNQ). Bis(2-ethylhexyl) phthalate was not detected in the upstream receiving water, with a method detection limit of either 2.1 µg/L or 0.5 µg/L, based on eight samples collected from January 2017 through February 2020. Figure F-5, below, shows effluent bis(2-ethylhexyl) phthalate sample results. Non-detect values are represented by the applicable method detection limit and the DNQ results are estimated values.

Figure F-5. Effluent Bis(2-ethylhexyl) Phthalate Monitoring Results



Section 2.4.2 of the SIP states that the Minimum Level (ML) is the lowest quantifiable concentration in a sample based on the proper application of all method-based analytical procedures and the absence of any matrix interferences.

- (1) Required ML's are listed in Appendix 4 of the SIP. Where more than one ML is listed in Appendix 4, the Discharger may select any one of the cited analytical methods for compliance determination. The selected ML used for compliance determination is referred to as the Reporting Level (RL).
- (2) Section 1.2 of the SIP requires that the Regional Board use all available, valid, relevant, representative data and information, as determined by the Regional Board, to implement the SIP. Section 1.2 of the SIP further states that the Regional Board has the discretion to consider if any data are inappropriate or insufficient for use in implementing the SIP.
- (3) Data reported below the ML indicates the data may not be valid due to possible matrix interferences during the analytical procedure.
- (4) Further, section 2.4.5 of the SIP (Compliance Determination) supports the insufficiency of data reported below the ML or RL. In part, it states, "*Dischargers shall be deemed out of compliance with an effluent limitation, for reporting and administrative enforcement purposes, 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.*" Thus, if submitted data is below the RL, that data cannot be used to determine compliance with effluent limitations.
- (5) Data reported below the ML is not considered valid data for use in determining reasonable potential. Therefore, in accordance with section 1.2 of the SIP, the Central Valley Water Board has determined that data reported below the ML is inappropriate and insufficient to be used to determine reasonable potential.
- (6) In implementing its discretion, the Central Valley Water Board is not finding that reasonable potential does not exist; rather the Central Valley Water Board cannot make such a determination given the insufficient data. Therefore, the Central Valley Water Board will require additional monitoring for such constituents until such time a determination can be made in accordance with the SIP policy.

SIP Appendix 4 cites an ML of 5.0 µg/L for bis(2-ethylhexyl) phthalate. The Discharger used an analytical method with a Reporting Level that was as sensitive as the ML required by the SIP for all 36 samples. The effluent results were all non-detects or estimated values (i.e., detected by not quantified). Therefore, the effluent data for bis(2-ethylhexyl) phthalate is inappropriate and insufficient to determine reasonable potential under the SIP.

- (c) **WQBEL's.** Order R5-2016-0020-01 contains an average monthly effluent limitation (AMEL) of 8.9 µg/L and maximum daily effluent limitation (MDEL) of 20 µg/L for bis(2-ethylhexyl) phthalate. These water quality-based effluent limitations were developed with the allowance of a human carcinogen mixing zone and considering Facility performance.

The CWA specifies that a revised permit may not include effluent limitations that are less stringent than the previous permit unless a less stringent limitation is justified based on exceptions to backsliding contained in CWA sections 402(o)(2) or 303(d)(4). Section 303(d)(4) allows that a limitation based on a water quality standard may be relaxed where the action is consistent with the antidegradation policy. Section 402(o)(2)(B)(i) allows a renewed, reissued, or modified permit to contain a less stringent effluent limitation for a pollutant if information is available which was not available at the time of permit issuance (other than revised regulations, guidance, or test methods) and which would have justified the application of a less stringent effluent limitation at the time of permit issuance. As discussed above, the effluent data for bis(2-ethylhexyl) phthalate is inappropriate and insufficient to determine reasonable potential under the SIP, therefore, the insufficient data does not provide new information to satisfy the exceptions to the anti-backsliding provisions contained in CWA sections 402(o)(2)(B)(i) or 303(d)(4) and justify less stringent effluent limitations.

Since the effluent data for bis(2-ethylhexyl) phthalate is inappropriate and insufficient to conduct a reasonable potential analysis and does not satisfy the exceptions provided in the federal anti-backsliding requirements, this Order retains an AMEL of 8.9 µg/L and MDEL of 20 µg/L for bis(2-ethylhexyl) phthalate from Order R5-2016-0020-

01, which are based on the allowance of a mixing zone and considering Facility performance. As discussed further in section IV.C.2.c of this Fact Sheet, a human carcinogen mixing zone may be allowed in the development of the WQBEL's for bis(2-ethylhexyl) phthalate in this Order.

This Order also requires the implementation of the Sufficiently Sensitive Methods Rule (SSM) rule which will require sampling using laboratory analytical methods that are sufficiently sensitive for bis(2-ethylhexyl) phthalate where the reporting levels are at or below the CTR criterion. The monitoring data collected over the upcoming permit term using a reporting level that complies with the SSM Rule will provide sufficient data to conduct a reasonable potential analysis for bis(2-ethylhexyl) phthalate.

- (d) **Plant Performance and Attainability.** The effluent limitations for bis(2-ethylhexyl) phthalate are based on Facility performance. The Central Valley Water Board concludes, therefore, that immediate compliance with these effluent limitations is feasible.

Discharger Comment 2: E. coli Receiving Water Monitoring.

The Discharger requested a unit change for E. coli organisms from colony forming units (CFU)/100 mL to most probable number (MPN)/100 mL for both the bacteria receiving water limitations (Section V.A.1) and the receiving water monitoring requirements (Attachment E, Section VIII.A.1, Table E-7) to allow the use of ELAP approved methods SM 9221 B,F and SM 9223 B for E. coli organisms.

RESPONSE: Central Valley Water Board staff concurs in part. The proposed Order includes new bacteria receiving water limitations for E. coli that implement the Statewide Bacteria Objectives adopted by the State Water Board. In addition, the quarterly fecal coliform organisms monitoring required in previous Order R5-2016-0020-01 has been replaced with quarterly E. coli organisms monitoring to evaluate compliance with new receiving water limitations. The bacteria receiving water limitations are expressed in units of CFU/ 100 mL, consistent with the Statewide Bacteria Objectives. Central Valley Water Board staff concur that to be consistent with ELAP approved methods for E. coli organisms the receiving water monitoring requirements should allow reporting in the units of MPN/100 mL. The units of CFU/100 mL and MPN/100 mL for E. coli organisms are comparable units of measurement and may be used interchangeably. Table E-7 of the Tentative Order has been revised to allow reporting for E. coli organisms in either MPN/100 mL or CFU/100 mL. However, to be consistent with the Statewide Bacteria Objectives, the bacteria receiving water limitations will remain in units of CFU/100 mL.

In addition to revising Table E-7 to allow reporting of E. coli organisms in units of either CFU/100 mL or MPM/100 mL, the rationale for receiving water monitoring provided in the Fact Sheet (Attachment F, Section VII.D.1.c) has been revised to clarify this change and now reads as follows:

- c. Receiving water monitoring requirements and sample types for flow (continuous, at Monitoring Location RSWU-001 only), pH (monthly), ammonia (monthly), dissolved oxygen (monthly), electrical conductivity (monthly), hardness (monthly), temperature (monthly), total nitrogen (monthly), and turbidity (monthly) at Monitoring Locations RSWU-001 and RSWD-003 have been retained from Order R5-2016-0020-01 to determine compliance with the applicable receiving water limitations and characterize the receiving water for these parameters. The quarterly fecal coliform organisms monitoring required in Order R5-2016-0020-01 has been replaced with quarterly E. coli organisms monitoring to evaluate compliance with Statewide Bacteria Objectives that are implemented in this Order as receiving water limitations. The bacteria receiving water limitations are expressed in units of colony forming units (CFU) per 100 mL, consistent with the Statewide Bacteria Objectives. The receiving water monitoring allows reporting in either CFU/100 mL or most probable number (MPN)/100 mL, because current ELAP approved analytical methods require reporting in MPN/100 mL for E. coli organisms. Evaluating compliance with the bacteria receiving water limitations using E. coli organisms results expressed in MPN/100 mL is sufficient, because the units CFU/100 mL and MPN/100 mL for E. coli organisms are comparable units of measurement and may be used interchangeably.

Discharger Comment 3: Typographical and Editorial Changes.

The Discharger requested that minor typographical errors be corrected and editorial changes be made to add clarifying language in several sections of the proposed Order.

RESPONSE: Central Valley Water Board staff concurs, and the requested changes have been made in the proposed Order.

Staff Revisions.

The following revisions have been made to the Tentative Order to provide clarification.

Staff Revisions 1. Sections IV.C.3.c.i-iii and Sections IV.C.3.c.v-vii of the Fact Sheet in the proposed Order have been modified to remove the following paragraph regarding the laboratory analytical methods reporting level. The paragraph that was removed is no longer applicable since the incorporation of the federal Sufficiently Sensitive Methods (SSM) Rule in the proposed Order. The SSM Rule requires the Discharger to conduct sampling using laboratory analytical methods that are sufficiently sensitive for a pollutant/parameter where the reporting levels are at or below the applicable water quality criteria. In some cases (e.g., bis(2-ethylhexyl) phthalate), the reporting level (RL) required by the SSM Rule is lower than the minimum level (ML) specified in Appendix 4 of the SIP.

- (2) An RL can be lower than the ML in Appendix 4 only when the Discharger agrees to use an RL that is lower than the ML listed in Appendix 4. The Central Valley Water Board and the Discharger have no agreement to use a RL lower than the listed ML.

Staff Revisions 2. Section IX.B.2 of the Monitoring and Reporting Program in the proposed Order has been modified for clarity to read as follows.

2. **Water Column Toxicity Monitoring Requirements.** When discharging to the Sacramento River, the Discharger shall monitor the toxicity of the downstream receiving water in accordance with U.S. EPA method EPA-821-R-02-012 (Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms, Fifth Edition, USEPA, October 2002, or most recent edition).

Except as specified in this order, water column toxicity testing shall follow the measurement quality objectives provided in the Surface Water Ambient Monitoring Program (SWAMP) Quality Assurance Program Plan (SWRCB, 2018). When feasible, toxicity testing shall be conducted using the Southern California Coastal Water Research Project (SCCWRP) guidance (Schiff and Greenstein, 2016) on test organism age and size for *Hyalella azteca*.

For consistency with EPA Method EPA-821-R-02-012 and ELAP accreditation, *Hyalella azteca* water column toxicity testing for baseline monitoring must be performed at 20 degrees Celsius.

Quarterly monitoring shall be conducted for one year, concurrent with the Pyrethroid Pesticides Water Column Chemistry Monitoring during Effluent and Receiving Water Characterization Monitoring (see section IX.E of this MRP for specific dates). Downstream receiving water

monitoring shall be conducted at Monitoring Location RSWD-003 when discharging to the Sacramento River and the results of such monitoring shall be submitted to the Central Valley Water Board with the quarterly SMR's. Monitoring can either be conducted by the Discharger or can be done as part of a group monitoring effort. If the Discharger chooses to participate in a group monitoring effort, the timing of the monitoring can be modified by the Executive Officer.