Central Valley Regional Water Quality Control Board
9/10 June 2022 Board Meeting

Response to Comments
for the
City of Nevada City
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 CA0079901 renewal for the City of Nevada City (Discharger), Wastewater Treatment Plant (Facility).

The tentative NPDES Permit was issued for a 30-day public comment period on 22 March 2022 with comments due by 21 April 2022. The Central Valley Water Board received public comments regarding the tentative Permit by the due date from the Discharger and the Sacramento River Source Water Protection Program. 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. **Ammonia Effluent Limitations**
   The Ammonia effluent limitations were calculated using effluent data statistics based on a dataset that includes a non-representative effluent ammonia sample of 18 milligrams/liter (mg/L) collected on 11 December 2020. The non-representative sample was collected during the Discharger's fine tuning of ammonium sulfate addition to the disinfection system for trihalomethane reduction. The Discharger requests removal of the non-representative sample result from the effluent dataset for calculation of effluent limitations for ammonia.

   RESPONSE: Central Valley Water Board staff concur and have removed the non-representative ammonia sample for the reason discussed in the Discharger's comment and recalculated the final effluent limitations. The final effluent limitations for ammonia have been revised as shown below in Table 4 – Effluent Limitations and throughout the proposed Order where necessary:

Table 4. Effluent Limitations

Parameter	Units	Average Monthly	Average Weekly
Ammonia Nitrogen, Total (as N)	mg/L	2.0	6.7

The rationale in section IV.C.3.d.i.(c) and (d) of Attachment F – Fact Sheet has been revised as shown below:

(c) **WQBELs.** The Central Valley Water Board calculates WQBELs in accordance with SIP procedures for non-CTR constituents, and ammonia is a non-CTR constituent. The SIP procedure assumes a 4day averaging period for calculating the long-term average discharge condition (LTA). However, U.S. EPA recommends modifying the procedure for calculating permit limits for ammonia using a 30-day averaging period for the calculation of the LTA corresponding to the 30-day CCC. Therefore, while the LTAs corresponding to the acute and 4-day chronic criteria were calculated according to SIP procedures, the LTA corresponding to the 30-day CCC was calculated assuming a 30-day averaging period. The lowest LTA representing the acute, 4-day CCC, and 30-day CCC is then selected for deriving the average monthly effluent limitation (AMEL) and average weekly effluent limitation (AWEL). The remainder of the WQBEL calculation for ammonia was performed according to the SIP procedures.

The Discharger reported that the 11 December 2020 effluent total ammonia sample (18 mg/L as N) was collected during fine tuning of ammonia sulfate addition to the disinfection system, which had started earlier that month for optimization of trihalomethanes reduction. For this reason, the sample collected on 11 December 2020 is not representative of the discharge and was removed from the dataset to develop the effluent data statistics for calculating the WQBELs. This Order contains a final AMEL and AWEL for total ammonia of 2.0 mg/L (as N) and 6.7 mg/L (as N), respectively, based on the USEPA's NAWQC, which implements the Basin Plan's narrative toxicity objective for protection of aquatic life.

(d) **Plant Performance and Attainability.** Analysis of the effluent data shows that the MEC of 1.1 mg/L is less than the applicable WQBELs. The Central Valley Water Board concludes, therefore, that immediate compliance with this effluent limitation is feasible.

The Aquatic Life WQBELs Calculations Table in Attachment H – Calculation of WQBELs has been revised as shown below:

AQUATIC LIFE WQBELS CALCULATIONS

Parameter	Units	CMC Criteria	CCC Criteria	B	Effluent CV	CMC Dilution Factor	CCC Dilution Factor	ECA Multiplier$_{acute}$	LTA$_{acute}$	ECA Multiplier$_{chronic}$	LTA$_{chronic}$	AMEL Multiplier$_{95}$	AWEL Multiplier	MDEL Multiplier$_{99}$	AMEL	AWEL	MDEL
Ammonia Nitrogen, Total (as N)	mg/L	10.8	2.39	0.15	1.31	--	--	0.16	1.7	0.59	1.4	1.4	4.7	--	2.0	6.7	--

2. **Chronic Whole Effluent Toxicity Effluent Limitation**
   The Discharger contends the chronic whole effluent toxicity effluent limitation should be 1.3 TUc (as $100/EC_{25}$) for consistency with the compliance determination language described in Waste Discharge Requirements section VII.G.

   RESPONSE: The Central Valley Water Board staff do not concur. The chronic whole effluent toxicity effluent limitation has been established based on the No Observed Effect Concentration (NOEC), which is the highest concentration that causes no observable adverse effects on the test organisms (i.e., the highest concentration in which the values for the observed responses are not statistically significantly different from the control). This ensures compliance with the Basin Plan's narrative toxicity objective, which states, "All waters shall be maintained free of toxic substances in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life."

3. **Mass Effluent Limitations Compliance Determination**
   The Discharger requests the removal of Waste Discharge Requirements section VII.J because the only mass-based effluent limitations in the Tentative Order are for mercury, which is already addressed in Waste Discharge Requirements section VII.I.

   RESPONSE: The Central Valley Water Board staff concur and Waste Discharge Requirements section VII.J has been removed.

4. **Monitoring Period for Bis (2-ethylhexyl) phthalate**
   The Discharger requests the effluent monitoring period for bis (2-ethylhexyl) phthalate be changed from "…for the first two years of the permit term…" to "…for the first 24 months of the permit term…" for clarity.

   RESPONSE: The Central Valley Water Board staff concur and the effluent monitoring period for bis (2-ethylhexyl) phthalate has been revised in Attachment E – Monitoring and Reporting Program section IV.A.2.j and throughout the proposed Order where necessary as shown below:

   j. **Bis (2-ethylhexl) phthalate**. In order to verify if bis (2-ethylhexyl) phthalate is truly present in the effluent discharge, the Discharger shall take steps to assure that sample containers, sampling apparatus, and analytical equipment are not sources of the detected contaminant. Bis (2-ethylhexyl) phthalate shall be sampled for the first 24 months of the permit term, after which the Discharger can cease quarterly monitoring.

5. **Date for the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California**
   The Discharger requests inclusion of the correct adoption date for the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California.

   RESPONSE: Central Valley Water Board staff have removed Attachment F – Fact Sheet, section III.C.1.b. that discusses the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California since it is still awaiting U.S. EPA approval and is not effective.

6. **303(d) List for Deer Creek**
   The Discharger contends that Deer Creek is not listed as impaired for diazinon and chlorpyrifos on the 303(d) List, so diazinon and chlorpyrifos should be removed from Table F-4 303(d) List for Deer Creek.

   RESPONSE: The Central Valley Water Board staff concur and have revised Attachment F – Fact Sheet section III.D.2 to accurately display the applicable TMDLs and 303(d) listings for Deer Creek as shown below:

   2. Total Maximum Daily Loads (TMDLs). Deer Creek is not listed as impaired on the 303(d) list for diazinon and chlorpyrifos. However, Central Valley Water Board completed a TMDL for diazinon and chlorpyrifos for the Sacramento River and San Joaquin River Basins that is applicable to this discharge. Table F-4, below, identifies the 303(d) listings and any applicable TMDLs. This Order includes water quality-based effluent limitations (WQBELs) that are consistent with the assumptions and considerations of the applicable waste load allocations (WLAs) in the 2014 TMDL for diazinon and chlorpyrifos.

Table F-4. 303 (d) Listings and TMDLs for Deer Creek

Pollutant	Potential Sources	TMDL Status
Indicator bacteria	Source Unknown	Planned for completion 2027
Mercury	Source Unknown	Planned for completion 2027
pH	Source Unknown	Planned for completion 2027
Chlorpyrifos	Source Unknown	Adopted 28 March 2014 and Effective 16 August 2017
Diazinon	Source Unknown	Adopted 28 March 2014 and Effective 16 August 2017

The first sentence of Attachment F – Fact Sheet section IV.3.a.i.(a) has been revised as shown below:

> The Central Valley Water Board completed a TMDL for diazinon and chlorpyrifos for the Sacramento River and San Joaquin River Basins and amended the Basin Plan to include diazinon and chlorpyrifos waste load allocations and water quality objectives.

7. Mercury Rationale Section

The Discharger requests that the rationale for mercury be moved from Attachment F – Fact Sheet section VI.C.3.a (Constituents with Total Maximum Daily Load) to section VI.C.3.b (Constituent with No Reasonable Potential) since the total maximum daily load for mercury has not been established.

RESPONSE: The Central Valley Water Board staff concur and have moved the mercury rationale from Attachment F – Fact Sheet section VI.C.3.a to section VI.C.3.b.

8. Averaging Periods

The Discharger contends that the statement in Attachment F – Fact Sheet section IV.D.1 (now section IV.D.2 of the proposed Order) that average weekly effluent limitations for dibromochloromethane and dichlorobromomethane have been replaced with maximum daily effluent limitations is incorrect since Order R5-2017-0060 contains maximum daily effluent limitations for dichlorobromomethane and does not contain effluent limitations for dibromochloromethane.

The Discharger also contends that the statement in Attachment F – Fact Sheet section IV.D.1 (now section IV.D.2 of the proposed Order) that the averaging periods for total residual chlorine, pH, and total coliform organisms have been replaced or supplemented with effluent limitations utilizing shorter averaging periods is incorrect since the effluent limitations for these constituents have not changed from Order R5-2017-0060.

RESPONSE: The Central Valley Water Board staff do not concur. This statement refers to the replacement of average weekly and average monthly effluent limitations required by Title 40 of the Federal Code of Regulations section 122.45(d) for POTWs with effluent limitations with different averaging periods where average weekly and average monthly effluent limitations are impracticable. This statement is not intended to detail changes from the prior permit term.

9. Missing Section

The Discharger noted that Attachment F – Fact Sheet section IV.D.2 is missing.

RESPONSE: The Central Valley Water Board staff concur. Attachment F – Fact Sheet section IV.D.1 (Mass-based Effluent Limitations) was inadvertently removed. Section IV.D.1 was added as shown below, and the sections have been renumbered accordingly:

> **1. Mass-based Effluent Limitations**
>
> 40 C.F.R section 122.45(f)(1) requires effluent limitations be expressed in terms of mass, with some exceptions. Pursuant to the exceptions to mass limitations provided in 40 C.F.R. section 122.45(f)(1), some effluent limitations are not expressed in terms of mass, such as pH and temperature, and when the applicable standards are expressed in terms of concentration (e.g., CTR criteria and MCLs) and mass limitations are not necessary to protect the beneficial uses of the receiving water.

10. Notice of Intent for the Salinity Control Program

The Discharger provided the date it submitted its Notice of Intent for the Salt Control Program.

RESPONSE: The Central Valley Water Board staff have included the missing date in the first sentence of the second paragraph of Attachment F – Fact Sheet, section VI.3.B.a, as shown below:

> The Discharger submitted a notice to intent for the Salt Control Program on 14 April 2022 indicating its intent to meet the Alternative Salinity Permitting Approach.

SACRAMENTO RIVER SOURCE WATER PROTECTION PROGRAM (SRSWPP) COMMENTS

1. Misrepresentation of Secondary Maximum Contaminant Level Policy

SRSWPP requests the removal of “expressed as dissolved metal” from the rationale for manganese in section IV.C.3.b.i of Attachment F – Fact Sheet for consistency with the Secondary Maximum Contaminant Level Policy in the Sacramento and San Joaquin Rivers Basin Plan.

RESPONSE: The Central Valley Water Board staff concur. The Tentative Order inadvertently referred to a site-specific objective for manganese applicable to the Sacramento-San Joaquin Delta, which does not apply to Deer Creek. Therefore, Attachment F – Fact Sheet section IV.C.3.b.i.(a) has been revised as shown below:

> **(a) WQO.** The Secondary MCL – Consumer Acceptance Limit for manganese is 50 µg/L, which is used to implement the Basin Plan’s chemical constituent objective for the protection of municipal and

domestic supply. Compliance with the Secondary MCL is to be determined from samples that have been passed through a 1.5-micron filter.