

Central Valley Regional Water Quality Control  
Board 18-19 April 2024 Board Meeting  
Response to Comments  
for the  
City of Portola  
Portola Wastewater Treatment Plant  
Tentative Waste Discharge Requirements  
Plumas County

---

At a public hearing scheduled for 18-19 April 2024, the Regional Water Quality Control Board, Central Valley Region (Central Valley Water Board) will consider adoption of tentative Waste Discharge Requirements (NPDES No. CA0077844) for the City of Portola's (Discharger) Portola Wastewater Treatment Plant (Facility). This document contains responses to written comments received from interested persons and parties in response to the tentative Order. Written comments from interested persons and parties were required to be received by the Central Valley Water Board by 26 February 2024 in order to receive full consideration. Comments were received prior to the deadline from:

1. Jo Anne Kipps (received 26 February 2024)

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

---

## **JO ANNE KIPPS COMMENTS**

### **JO ANNE KIPPS COMMENT #1 – Site Map**

“Consider identifying Attachment C’s facility site map as a separate attachment.”

#### **RESPONSE:**

The aerial view and monitoring well locations map originally depicted in the tentative Order, Attachment C – Flow Schematic was revised to be shown in Attachment B – Map since the figure is a map and not a flow schematic.

### **JO ANNE KIPPS COMMENT #2 – Hydraulic Loading to Groundwater**

Ms. Kipps requested that the tentative Order be revised “to provide the results of water balance calculations to approximate the pond system’s leakage rate which, essentially, is the hydraulic loading to groundwater.”

**RESPONSE:**

Staff note that the tentative Order already requires the Discharger to report annual totals for flow measured at INF-001 (treatment plant headworks), LND-001 (a sample location prior to wastewater entering the six-acre pond), and EFF-002 (a sample location between the outfall from the six-acre pond and receiving water) in the Annual Operations Report pursuant to Attachment E, Section X.D.3.

Additionally, staff have revised the requirements of the Annual Operations Report within the proposed Order, Attachment E, Section X.D.3.g, to require the Discharger to estimate the total annual volume disposed through percolation into the groundwater and evaporation, including calculations to determine the volume.

**JO ANNE KIPPS COMMENT #3 – Groundwater Monitoring**

“Because dissolved arsenic has a water quality objective to protect groundwater beneficial use for domestic and municipal supply, please include arsenic in the list of filtered metals. And, include quarterly monitoring for bicarbonate alkalinity and hardness as these constituents, along with total organic carbon, are indicators of organic loading to groundwater. Also, because chloride is an excellent tracer of effluent in groundwater, consider requiring quarterly monitoring for chloride.”

**RESPONSE:**

Staff concur with the groundwater monitoring recommendations provided. The proposed Order, Attachment E, Table E-8 Groundwater Monitoring Requirements was revised to change the metals monitoring requirement from total recoverable to dissolved for arsenic, lead, and nickel. In addition, language to clarify the size filter and when filtering shall occur was added to the footnotes in Table E-8.

Additionally, although bicarbonate alkalinity, hardness, and chloride monitoring are all included in the 1/year standard minerals monitoring, quarterly monitoring for each parameter was added to the proposed Order, Attachment E, Table E-8 to gain more information on seasonal changes in the groundwater.

**JO ANNE KIPPS COMMENT #4 – Pond Invert Elevations**

“Please revise the tentative order to provide information on pond invert elevations and estimated vertical separation distances between pond invert and highest anticipated groundwater.”

**RESPONSE:**

Staff concur. The requested pond invert elevations were added to Table F-2 of the proposed Order, Attachment F. Additional information regarding the groundwater monitoring wells, groundwater elevation, and treatment ponds can be found in Attachment F, Section V.B of the proposed Order.

Depending on the seasonal variability in groundwater level, there can be little vertical separation between the pond bottom invert and highest groundwater, which does affect the soil's ability to treat for coliform. The groundwater monitoring program in the proposed Order is established to assess any impacts to the groundwater, including coliform, and ensure that water quality objectives are met and beneficial uses protected.

**JO ANNE KIPPS COMMENT #5 – Groundwater Ammonia**

Proposed language was provided by Ms. Kipps regarding the Background Groundwater Study's summary on the presence of ammonia in downgradient wells.

**RESPONSE:**

Staff concur with the language proposed by Ms. Kipps and revised the following sentence in Attachment F, Section V.B.9 of the proposed Order:

“Lower dissolved oxygen values observed in the downgradient wells in comparison to the upgradient concentrations may further support the former explanation, since the lower dissolved oxygen concentrations could be due to where in the nitrogen cycle dissolved oxygen is ~~reduced~~ consumed in the ~~conversion~~ biological oxidation of ammonia (from the ponds) to nitrate.”

**JO ANNE KIPPS COMMENT #6 – Best Practicable Treatment or Control (BPTC) Work Plan**

Ms. Kipps acknowledges that the Discharger is required to submit the Best Practicable Treatment or Control Report and Antidegradation Re-evaluation within 18 months of order adoption. In reference to this report, Ms. Kipps states “If the approved workplan did not include characterizing the current discharge's annual loading to groundwater of wastewater / effluent and of BOD and total nitrogen, then consider requesting the Discharger to include this information in its Report.”

**RESPONSE:**

The requested information will be evaluated as part of the BPTC report submittal and review. Additionally, the revisions made as part of comment #2, above, include

calculation of total volume disposed through percolation into groundwater.

Therefore, the proposed Order has not been further modified.

### **JO ANNE KIPPS COMMENT #7 – Nitrate plus Nitrite Effluent Limitations**

“Please reconsider the appropriateness of imposing the new effluent limitations for nitrate plus nitrite, as the Facility’s decades-old pond-treatment system does not provide reliable treatment for nitrogen removal. If the intent of the new effluent limitations is to ensure the discharge to surface water will not cause an instream incursion of the water quality standard for nitrate plus nitrite, then consider applying the numerical limits to total nitrogen instead.”

#### **RESPONSE:**

Staff do not concur with the recommendation. Nitrate plus nitrite effluent limitations were established for this facility consistent with federal and state regulations, including the State Policy for Implementation of Toxics Standard for Inland Surface Waters, Enclosed Bays, and Estuaries of California (SIP). Specifically, the SIP provides the authority to determine—based on professional judgment and considering available information, such as the facility or discharge type—that a water quality-based effluent limitation is required to protect beneficial uses. In this case, the Facility receives influent containing substantial levels of nitrogen. A review of the treatment process and limited effluent data for nitrate indicate that current practices result in low levels of nitrate discharge. The effluent limitations for nitrate plus nitrite will ensure that any potential future changes to treatment practices will continue to meet nitrate discharge limitations.

Effluent limitations for nitrate plus nitrite are based on the State Primary Maximum Contaminant Level (MCL) for nitrate plus nitrite (10 mg/L), which is an applicable water quality objective for the receiving water. There is no water quality objective for total nitrogen that is applicable to the receiving water. The intent of the new effluent limitations is to ensure effluent discharge to the receiving water will not cause an exceedance of the applicable water quality objective for nitrate plus nitrite outside of the approved mixing zone.

Inclusion of the nitrate plus nitrite effluent limitation is also appropriate because it aligns with the CV-SALTS approach of controlling sources of nitrogen to achieve compliance with water quality objectives and manage water supplies for long term sustainability. The State Water Board is continuing work to develop a statewide policy for water quality control to reduce nutrient impacts, biostimulation, and harmful algal blooms in surface waters and to support biological integrity in wadeable streams and rivers.

The proposed Order has been changed as shown below in Attachment F, Section IV.C.3.c.iv to clarify the intent of the new effluent limitation for nitrate plus nitrite:

**(b) RPA Results.** The Facility is a POTW that treats domestic wastewater. Untreated domestic wastewater contains ammonia in concentrations that are harmful to aquatic life and exceed the Basin Plan’s narrative toxicity objective. Inadequate or incomplete treatment may result in the discharge of nitrate and/or nitrite to the receiving stream in concentrations that may exceed the Primary MCL and would violate the Basin Plan’s narrative chemical constituents’ objective. Consistent with federal and state regulations, including the State Policy for Implementation of Toxics Standard for Inland Surface Waters, Enclosed Bays, and Estuaries of California (SIP), the Board may determine—based on professional judgment and considering available information, such as the facility or discharge type—that a water quality-based effluent limitation is required to protect beneficial uses. In this case, the Facility receives influent containing substantial levels of nitrogen. A review of the treatment process and limited effluent data for nitrate indicate that current practices result in low levels of nitrate discharge. Effluent limitations for nitrate plus nitrite will ensure that any potential future changes to treatment practices will continue to meet nitrate discharge limitations. Therefore, the Central Valley Water Board finds the discharge has a reasonable potential to cause or contribute to an instream excursion above the Primary MCL and WQBELs are required for nitrate plus nitrite.

**(c) WQBELs.** .....These effluent limitations are included in this Order to ~~assure the treatment process adequately nitrifies and denitrifies the waste stream to~~ protect the beneficial use of municipal and domestic supply. Inclusion of the nitrate plus nitrite effluent limitation is also appropriate because it aligns with the CV-SALTS approach of controlling sources of nitrogen to achieve compliance with water quality objectives and manage water supplies for long term sustainability. The State Water Board is continuing work to develop a statewide policy for water quality control to reduce nutrient impacts, biostimulation, and harmful algal blooms in surface waters and to support biological integrity in wadeable streams and rivers.

#### **JO ANNE KIPPS COMMENT #8 – Groundwater Beneficial Uses**

“The tentative order’s Attachment C identifies municipal drinking water supply wells in the discharge area. Please explain why the tentative order does not recognize the beneficial uses of area groundwater as “Existing.”

#### **RESPONSE:**

Staff concur with the comment and has revised the beneficial uses of the underlying

groundwater in Attachment F, Table F-4 of the proposed Order from “Potential” to “Existing.”

#### **JO ANNE KIPPS COMMENT #9 – Composite Sampling**

“The six-acre pond’s 5 MG capacity provides 10 detention days at 0.5 mgd wastewater flow. As such, grab samples of the pond’s discharge should be considered adequately composited and representative of the discharge. Unless required by federal regulations or policies, please explain why the MRP requires 24-hour-compositing sampling of EFF-002 for BOD, TSS, and DOC.”

#### **RESPONSE:**

The Discharger already has a composite sampler in place at the monitoring location and its continued use is beneficial to ensure a representative composite sample.

Therefore, the proposed Order has not been modified.

#### **JO ANNE KIPPS COMMENT #10 – Groundwater Ammonia Reporting**

“Please confirm that the Discharger’s reporting of groundwater ammonia is as nitrogen, and revise Table E-8 Groundwater Monitoring Requirements to require ammonia results expressed as N.”

#### **RESPONSE:**

Staff confirm that the Discharger’s reporting of groundwater ammonia during the term of the previous WDRs is as nitrogen. The proposed Order, Attachment E, Table E-8 has been revised to require ammonia results expressed as nitrogen.

#### **JO ANNE KIPPS COMMENT #11 – Pond Dissolved Oxygen Monitoring**

“Please amend the pond monitoring requirements to specify dissolved oxygen monitoring to be performed between the hours of 8:00 a.m. and 10:00 a.m.”

#### **RESPONSE:**

Staff partially concur with the recommendation to specify dissolved oxygen monitoring to be performed between the hours of 8:00 am and 10:00 am. Although dissolved oxygen levels are expected to be lowest at the hours specified, there have been no indications or history of any odor issues at the Facility related to low dissolved oxygen in the treatment ponds.

However, the proposed Order, Attachment E, Section IX.A.1.b.iv was revised to specify that dissolved oxygen monitoring is to be performed between the hours of 8:00 a.m. and 10:00 a.m., as feasible.

**JO ANNE KIPPS COMMENT #12 – Total Suspended Solids Reference**

Ms. Kipps asked to clarify the value of 95 mg/L in Attachment F, Section IV.B.1 pertaining to technology-based effluent limitations for total suspended solids.

**RESPONSE:**

The value in question in the tentative Order is in reference to Alternative State Requirements, which allow the flexibility to set permit limitations for total suspended solids as high as 95 mg/L in lagoon effluent. This is not applicable to the discharge and the language was removed from the proposed Order. The technology-based effluent limitation for total suspended solids is based on “equivalent to secondary treatment”, as explained in the same section referenced above.

The deletion of the text does not affect the final technology-based effluent limitations for total suspended solids originally shown in the tentative Order.

---

**STAFF REVISIONS**

1. Corrected units for nitrate plus nitrite effluent limitations in the proposed Order, Attachment F, Section IV.C.3.c.iv to show mg/L instead of µg/L.

