

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION

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**[TENTATIVE] WASTE DISCHARGE REQUIREMENTS ORDER**  
**R5-2024-####**

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**ORDER INFORMATION**

**Order Type(s):** Waste Discharge Requirements (WDRs)  
**Status:** Tentative  
**Program:** Non-15  
**Region 5 Office:** Fresno  
**Discharger(s):** Bear Valley Community Services District  
**Facility:** Bear Valley Community Services District Wastewater Treatment Facility  
**Address:** 29951 North Lower Valley Road, Tehachapi, CA 93561  
**County:** Kern County  
**Prior Order:** R5-2015-0011 NPDES NO. CA0081213

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**CERTIFICATION**

I, PATRICK PULUPA, Executive Officer, hereby certify that the following is a full, true, and correct copy of the order adopted by the California Regional Water Quality Control Board, Central Valley Region, on \_\_\_\_\_ [Month] [Year].

\_\_\_\_\_  
PATRICK PULUPA,  
Executive Officer

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## GLOSSARY

<b>Antidegradation Policy</b> .....	Statement of Policy with Respect to Maintaining High Quality Waters in California, State Water Board Resolution 68-16
<b>Basin Plan</b> .....	Water Quality Control Plan for [BASIN]
<b>BOD<sub>[5]</sub></b> .....	[Five-Day] Biochemical Oxygen Demand at 20° Celsius
<b>BPTC</b> .....	Best Practicable Treatment and Control
<b>CEQA</b> .....	California Environmental Quality Act, Public Resources Code section 21000 et seq.
<b>DO</b> .....	Dissolved Oxygen
<b>EC</b> .....	Electrical Conductivity
<b>FEMA</b> .....	Federal Emergency Management Agency
<b>µg/L</b> .....	Micrograms per Liter
<b>µmhos/cm</b> .....	Micromhos per Centimeter
<b>mgd</b> .....	Million Gallons per Day
<b>mg/L</b> .....	Milligrams per Liter
<b>MRP</b> .....	Monitoring and Reporting Program
<b>MCL</b> .....	Maximum Contaminant Level per Title 22
<b>N</b> .....	Nitrogen
<b>ND</b> .....	Non-Detect
<b>NE</b> .....	Not Established
<b>R[O]WD</b> .....	Report of Waste Discharge
<b>SPRRs</b> .....	Standard Provisions and Reporting Requirements

**GLOSSARY**

**TDS** ..... Total Dissolved Solids

**Title 22** ..... California Code of Regulations, Title 22

**Title 23** ..... California Code of Regulations, Title 23

**Title 27** ..... California Code of Regulations, Title 27

**Unified Guidance** ..... Statistical Analysis of Groundwater Monitoring Data at  
Resource Conservation and Recovery Act Facilities,  
Unified Guidance (U.S. EPA, 2009)

**U.S. EPA** ..... United States Environmental Protection Agency

**WDRs** ..... Waste Discharge Requirements

**WQO[s]** ..... Water Quality Objective[s]



## FINDINGS

The Central Valley Regional Water Quality Control Board (Central Valley Water Board) hereby finds as follows:

### Introduction

1. The Bear Valley Community Services District Wastewater Treatment Facility (WWTF or Facility) is owned and operated by Bear Valley Community Services District (Discharger). The Discharger also owns the Bear Valley Oak Tree Country Club golf course to which recycled water from the Facility is discharged. However, the golf course is managed by Bear Valley Springs Association.
2. The Facility is located at 29951 North Lower Valley Road in Kern County, Section 9, Township 32S, Range 31E, Mount Diablo Base and Meridian (MDB&M). The Facility's location is depicted on the Site Location Map in Attachment A. The Facility is comprised of the following Kern County Assessor Parcel Number (APN):

**Table 1—Facility Parcel**

APN	Landowner
323-014-01	Bear Valley Community Services District

3. As Facility's owner and operator, the Discharger is responsible for compliance with the Waste Discharge Requirements (WDRs) prescribed in this Order.
4. The following materials are attached and incorporated as part of this Order:
  - a. Attachment A—Location map
  - b. Attachment B—Facility Layout
  - c. Attachment C—Flow Schematic
  - d. Standard Provisions & Reporting Requirements dated 1 March 1991 (SPRRs)
  - e. Information Sheet
5. Also attached is **Monitoring and Reporting Program R5-2024-####** (MRP), which requires monitoring and reporting for discharges regulated under these WDRs. The Discharger shall comply with the MRP and subsequent revisions thereto as ordered by the Executive Officer or adopted by the Central Valley Water Board.
6. Any additional information set forth in the attached **Information Sheet** is also incorporated herein.

### **Background**

7. The Facility discharges treated wastewater to Sycamore Creek and recycles disinfected, tertiary-treated domestic wastewater on the Bear Valley Oak Tree Country Club golf course and on landscaping surrounding the Facility. For the purpose of this Order, "Use Area" means the Bear Valley Oak Tree Country Club golf course, the landscaping around the Facility where recycled water is used, and any future use areas permitted by the Central Valley Water Board or State Water Resources Control Board (State Water Board) to receive recycled water from the Facility. The Discharger was previously regulated by Order R5-2015-0011 and National Pollutant Discharge Elimination System (NPDES) Permit No. CA0081213, adopted on 6 February 2015 and expired on 31 March 2020.
8. On 21 October 2019, the Discharger submitted a Report of Waste Discharge (ROWD) to renew their NPDES permit, Order R5-2015-0011 (NPDES No. CA0081213) for the Facility. However, the Discharger subsequently conducted a study of the Sycamore Creek to determine if the receiving water had the potential to reach waters of the United States. Based on the study, the Discharger concluded Sycamore Creek is an ephemeral stream and does not have the potential of reaching waters of the United States. On 19 March 2021, the Discharger requested coverage under Waste Discharge Requirements (WDRs) for discharges to Sycamore Creek and stated it no longer desires a NPDES permit.
9. A 25 February 2022 memorandum by Central Valley Water Board staff provided a review of the Discharger's findings on whether discharges to Sycamore Creek constitute a discharge to waters of the United States. On 28 February 2022, Central Valley Water Board staff sent the Discharger a letter stating that based on the Discharger's study and its own desktop analysis, staff had not discovered any evidence that Sycamore Creek is a water of the United States or that flow in Sycamore Creek reaches a water of the United States.
10. Based on the Discharger's request, information provided by the Discharger, and Central Valley Board staff's review of the information, NPDES No. CA0081213 will not be reissued, and it is appropriate to authorize Facility discharges to Sycamore Creek solely under WDRs.

### **Facility Description**

11. The Discharger provides sewerage service for the community of Bear Valley Springs and serves a population of approximately 1,100 permanent residents. The design daily average flow capacity of the Facility is 0.25 million gallons per day (mgd).
12. The treatment system at the Facility consists of bar screening, an oxidation ditch, a secondary clarifier, chlorination system, two continuous backwash sand filters

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(used alternately), and a final chlorine contact chamber. Disinfected, tertiary-treated wastewater is stored in a 240,000-gallon concrete-lined storage pond. Biosolids/sludge produced from the secondary clarifier is dried in eight concrete-lined sludge drying beds as identified in Attachment C and are hauled to a composting facility in Lost Hills, CA. The Facility produces approximately 21.2 dry metric tons of dried biosolids annually. Transportation and disposal/reuse of the biosolids is regulated by U.S. EPA under 40 Code of Federal Regulations part 503.

13. Disinfected, tertiary-treated wastewater is discharged at Discharge Point 001 (Sycamore Creek, at point latitude 35 degrees 10 minutes 01 seconds North and longitude 118 degrees 39 minutes 53 seconds West) and Discharge Point 002 (recycled water delivered from Facility to Use Areas).
14. Effluent limitations contained in Order R5-2015-0011 for discharges at Discharge Points 001 and 002, and representative monitoring data from August 2016 through July 2022 are shown in Tables 2 and 3 below.
15. Discharge Point 001: Treated wastewater is discharged from the Facility to Sycamore Creek. Prior to direct discharge to Sycamore Creek, treated domestic wastewater is stored in the concrete-lined storage pond.
16. Discharge Point 002: Recycled water delivered to Use Areas (i.e., the golf course, on landscaping surrounding the Facility, and any future use areas permitted by the Central Valley Water Board or State Water Board to receive recycled water from the Facility). Disinfected tertiary recycled water is stored in the concrete-lined storage pond prior to being discharged to use areas.

**Table 2 – Historic Effluent Limitations – Discharge Point 001**

Parameter	Units	Historic Effluent Limitations	Highest Average Monthly Discharge	Highest Average Weekly Discharge	Highest Daily Discharge	Average Discharge
Flow	mgd	Average Monthly Effluent Limit (AMEL) – Dry Weather: 0.25	0.15	--	--	0.08
Biochemical Oxygen Demand (5-Day @ 20°C)	mg/L	AMEL: 10 Average Weekly Effluent Limit (AWEL): 15 Maximum Daily Effluent Limit (MDEL): 20	5.9	11	11	3.8

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Parameter	Units	Historic Effluent Limitations	Highest Average Monthly Discharge	Highest Average Weekly Discharge	Highest Daily Discharge	Average Discharge
Total Suspended Solids	mg/L	AMEL: 10 AWEL: 15 MDEL: 20	4.9	9.0	9.0	2.1
pH	Std Units	Instantaneous Min 6.5 Instantaneous Max 8.3	--	--	6.7 - 8.8	7.9
Electrical Conductivity @ 25 degrees C	µmhos/cm	12-month rolling average electrical conductivity (@ 25 degrees C) of the source water plus 500 µmhos/cm, or a maximum of 1,000 µmhos/cm	1,091 12-month rolling average	--	1,405	1,016
Boron	mg/L	AMEL: 1.0	0.32	--	--	0.2
Chloride	mg/L	AMEL: 175	170	--	--	112
Ammonia, unionized (as N)	mg/L	AMEL: 0.015 AWEL: 0.025	0.089	0.35	--	0.06
Total Coliform Organisms	MPN/100 mL	2.2 as a 7-day median; 23 more than once in any 30-day period; 240 at any time	--	4.5	1600	7.6
Acute Toxicity	Percent Survival	70%, minimum for any one bioassay 90%, median for any three consecutive bioassays	--	--	--	All results indicated 100% survival
Total Residual Chlorine	mg/L	0.011, as a 4-day average. 0.019, as a 1-hour average.	--	--	3.9	0.03

**Table 3 – Historic Effluent Limitations – Discharge Point 002**

Parameter	Units	Historic Effluent Limitations	Highest Average Monthly Discharge	Highest Average Weekly Discharge	Highest Daily Discharge	Average Discharge
Flow	mgd	AMEL- Dry Weather: 0.25	0.087	--	--	0.05
Biochemical Oxygen Demand (5-Day @20 degrees C)	mg/L	AMEL: 10 AWEL: 15 MDEL: 20	7.4	17	17	4.1
Total Suspended Solids	mg/L	AMEL: 10 AWEL: 15 MDEL: 20	6.0	18	18	2.2
pH	Std Units	Instantaneous Min 6.5 Instantaneous Max 8.5	--	--	7.0 - 8.9	8.0
Electrical Conductivity @ 25 degrees C	µmhos/cm	12-month rolling average electrical conductivity (@ 25 degrees C) of the source water plus 500 µmhos/cm, or a maximum of 1,000 µmhos/cm	1,182 12-month rolling average	--	1,451	1,137
Boron	mg/L	AMEL 1.0	0.30	--	--	0.24
Chloride	mg/L	AMEL 175	190	--	--	154
Total Coliform Organisms	MPN/100 mL	2.2 as a 7-day median; 23 more than once in any 30-day period; 240 at any time	--	4.5	1600	46

**Water Recycling Considerations**

17. Undisinfected domestic wastewater contains human pathogens that are typically measured using total or fecal coliform organism as indicator organisms.
18. The State Water Board’s Division of Drinking Water (DDW), which is charged with establishing drinking water quality standards for the protection of public health, has promulgated a criterion for the use of recycled water throughout

California, codified as California Code of Regulations, title 22 (Title 22), section 60301 et seq.

19. The Discharger currently recycles disinfected tertiary-treated domestic wastewater on the Bear Valley Oak Tree Country Club golf course and on the landscaping surrounding the Facility. Bear Valley Springs Association maintains the Bear Valley Oak Tree Country Club golf course and is responsible for the application of recycled water.
20. In accordance with Title 22, on 28 April 2022, the Discharger submitted to DDW an Engineering Report for the recycling of “disinfected tertiary recycled water.” (See Title 22, § 60301.230 [defining term].) A copy of the Engineering Report was also submitted to the Central Valley Water Board.
21. On 18 October 2022, DDW responded to the April 2022 Title 22 Engineering Report and requested the report be revised to provide additional information. The Discharger is in the process of responding to the 18 October 2022 DDW comments.
22. This Order does not include reclamation requirements pursuant to Title 22. Per Provision L.18 of this Order, prior to recycling tertiary-treated effluent from the Facility, the Discharger must apply for and receive coverage under State Water Board Order WQ 2016-0068-DDW, Water Reclamation Requirements for Recycled Water Use (Reclamation General Order). As part of the application for the Reclamation General Order, the Discharger must provide a Title 22 Engineering Report approved by DDW.
23. While this Order does not include reclamation requirements, it does include effluent limitations and discharge specifications to ensure the quality of the recycled water leaving the Facility meets the Uniform Statewide Recycling Criteria codified in Title 22, division 4, chapter 3.
24. The discharges authorized herein are consistent with the State Water Board’s *Policy for Water Quality Control for Recycled Water* (Recycled Water Policy), Resolution 2009-0011, as amended per Resolutions 2013-0003 and 2018-0057; and Central Valley Water Board Resolution R5-2009-0028 (*Resolution in Support of Regionalization, Reclamation, Recycling and Conservation for WWTPs*).

### **Site-Specific Conditions**

#### Topography, Climate, and Land Use

25. The Facility is in the vicinity of Tehachapi Mountains approximately 4,000-feet above mean sea level.

26. Annual precipitation in the area is approximately 11 to 15 inches according to the National Oceanic and Atmospheric Administration (NOAA). The annual reference evapotranspiration in the area is approximately 58 inches according to the California Irrigation Management Information System.
27. According to National Oceanic and Atmospheric Administration (NOAA) Precipitation Frequency Atlas 14, Vol. 6 (rev. 2014), 100-year and 1,000-year, 24-hour rainfall events are estimated to result in 5.52 and 7.95 inches of precipitation, respectively.<sup>1</sup>
28. The Federal Emergency Management Agency (FEMA) [Flood Insurance Rate Map](https://msc.fema.gov/portal) (https://msc.fema.gov/portal), shows the Facility is in “Zone X”, which is an area of minimal flood hazard that is determined to be outside of the 0.2 percent (or 500-year) annual chance floodplain.
29. Land uses in the vicinity include residential housing and the Oak Tree Country Club which includes a 67-acre, 9-hole golf course and a golf course shop. The Facility is adjacent to Four Island Lake and Cub Lakes. The manmade lakes are approximately 24 acres and 6.4 acres, respectively.

#### Surface Water Conditions

30. Sycamore Creek is a product of runoff from the upper reaches of the watershed. Significant portions of the year, Sycamore Creek is effluent dominated and typically flows only in response to precipitation or snowmelt. Sycamore Creek is capable of reaching the valley floor, but the majority of the time the flow will disappear in Sycamore Canyon.

#### Groundwater and Subsurface Conditions

31. According to United States Department of Agriculture, surface soils in the vicinity consists of very deep, well drained soils that formed in alluvium derived from rocks of mixed mineralogy. The soil is classified as fine-loamy, mixed, active, thermic Typic Argixerolls.
32. In the ROWD, the Discharger reported seven municipal groundwater wells. Groundwater was encountered at approximately 60-370 feet below ground surface.

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<sup>1</sup> Source: [NOAA Precipitation Frequency Data Server](https://hdsc.nws.noaa.gov/hdsc/pfds)  
(https://hdsc.nws.noaa.gov/hdsc/pfds)

33. The municipal water source comes from seven groundwater supply wells. Table 4 below shows constituent monitoring of the municipal water supply in June 2017:

**Table 4 – Average Municipal Water Supply Monitoring Results**

Constituent	Units	Average	Count
Total Dissolved Solids	mg/L	401	7
Electrical Conductivity @ 25 degrees Celsius	µmhos/cm	590	2
Alkalinity, Total (as CaCO3)	mg/L	174	7
Boron, Total Recoverable	ug/L	32	7
Calcium, Total Recoverable	mg/L	71	7
Chloride	mg/L	30	7
Hardness, Total (as CaCO3)	mg/L	254	7
Phosphorus, Total (as P)	mg/L	0.08	6
Potassium, Total Recoverable	mg/L	4.7	7
Sodium, Total Recoverable	mg/L	32	7

34. The Bear Valley Community Services District releases a Consumer Confidence Report annually providing the consumers with information regarding the quality of the drinking water. Table 5 below summarizes the nitrate in drinking water from 2018 through 2022.

**Table 5 – Consumer Confidence Report**

Constituent	Units	Detection Range	Average Level Detected	Year
Nitrate as N	mg/L	ND – 8.6	3.32	2018
Nitrate as N	mg/L	ND – 8.3	1.23	2019
Nitrate as N	mg/L	ND – 9.5	4.8	2020
Nitrate as N	mg/L	ND – 9	4.75	2021
Nitrate as N	mg/L	ND – 9.8	4.68	2022

ND – Non Detect

### Statutory Authority

35. This Order is adopted pursuant to Water Code section 13263, subdivision (a), which provides in pertinent part as follows:

*The regional board, after any necessary hearing, shall prescribe requirements as to the nature of any proposed discharge, existing discharge, or material change in an existing discharge..., with relation to the conditions existing in the disposal area or receiving waters upon, or into which, the discharge is made or proposed.*



36. Compliance with section 13263, subdivision (a), including implementation of applicable water quality control plans, is discussed in the findings below.
37. The ability to discharge waste is a privilege, not a right, and adoption of this Order shall not be construed as creating a vested right to continue discharging waste. (Wat. Code, § 13263, subd. (g).)
38. This Order and its associated Monitoring and Reporting Program (MRP) are also adopted pursuant to Water Code section 13267, subdivision (b)(1), which provides as follows:

*[T]he regional board may require that any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste ... shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports and shall identify the evidence that supports requiring that person to provide the reports.*

39. The reports required under this Order, as well as under the separately issued MRP, are necessary to verify and ensure compliance with WDRs. The burden associated with such reports is reasonable relative to the need for their submission.

### **Basin Plan Implementation**

40. Pursuant to Water Code section 13263, subdivision (a), WDRs must “implement any relevant water quality control plans..., and shall take into consideration the beneficial uses to be protected, the water quality objectives reasonably required for that purpose, other waste discharges, the need to prevent nuisance, and the provisions of Section 13241.”
41. This Order implements the Central Valley Water Board’s Water Quality Control Plan for the Tulare Lake Basin (Basin Plan), which designates beneficial uses for surface water and groundwater and establishes water quality objectives (WQOs) necessary to preserve such beneficial uses. (See Wat. Code, § 13241 et seq.)

### **Beneficial Uses of Water**

42. Local drainage is to the Sycamore Creek, the beneficial uses of which (per the Basin Plan) include agricultural supply (AGR); industrial service supply (IND); industrial process supply (PRO); water contact recreation (REC-1); non-water

contact recreation (REC-2); warm freshwater habitat (WARM); wildlife habitat (WILD); preservation of rare, threatened, or endangered species (RARE); and Groundwater recharge (GWR).

43. Per the Basin Plan (Bear Valley Satellite Basin), beneficial uses of underlying groundwater at the Facility are municipal and domestic supply (MUN); agricultural supply (AGR); industrial service supply (IND); industrial process supply (PRO); Water contact recreation (REC-1); non-contact water recreation (REC-2); and Wildlife habitat (WILD).

#### Water Quality Objectives

44. The numeric WQO for bacteria is expressed as the most probable number (MPN) of coliform organisms per 100 mL of water. For MUN-designated groundwater, the objective is an MPN of 2.2 organisms over any seven-day period.
45. On 7 August 2018 the State Water Board adopted Resolution No. 2018-0038 establishing Bacteria Provisions, which are specifically titled “Part 3 of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California—Bacteria Provisions and a Water Quality Standards Variance Policy” and “Amendment to the Water Quality Control Plan for Ocean Waters of California—Bacteria Provisions and a Water Quality Standards Variance Policy.” The Bacteria WQOs established in the Bacteria Provisions supersede any surface water numeric WQO for bacteria for the REC-1 beneficial use contained in a water quality control plan before the effective date of the Bacteria Provisions.

The Bacteria WQOs correspond with the risk protection level of 32 illnesses per 1,000 recreators and use *E. coli* as the indicator of pathogens in freshwaters and enterococci as the indicator of pathogens in estuarine waters and ocean waters.

The Bacteria Provisions provide that where a permit, WDRs, or waiver of WDRs includes an effluent limitation or discharge requirement that is derived from a WQO or other guidance to control bacteria (for any beneficial use) that is more stringent than the Bacteria WQO, the Bacteria WQO would not be implemented in the permit, WDR, or waiver of WDR. This Order includes effluent limitations and discharge requirements equivalent to the DDW Title 22 disinfected tertiary reclamation criteria that are more stringent than the Statewide Bacteria Objectives. Therefore, the Statewide Bacteria Objectives have not been implemented in this Order.

46. The narrative WQO for chemical constituents in groundwater generally provides that groundwater shall not contain constituents in concentrations adversely affecting beneficial uses. For MUN-designated waters, the Basin Plan further provides that water, at a minimum, meet the primary and secondary maximum

contaminant levels (MCLs) specified in Title 22.<sup>2</sup> (See Title 22, §§ 64431, 64444, 64449.)

47. The narrative WQO for toxicity provides that surface water and groundwater shall be maintained free of toxic substances in concentrations producing detrimental physiological responses in human, animal, plant, or aquatic life associated with designated beneficial uses.
48. To the extent necessary, narrative WQOs are quantified, on a site-specific basis, as numeric limits for constituents with potential to adversely impact designated uses. In determining a site-specific numeric limit, the Central Valley Water Board considers relevant published criteria.

#### Salt and Nitrate Control Program

49. The Central Valley Water Board adopted Basin Plan amendments incorporating new programs for addressing ongoing salt and nitrate accumulation in the Central Valley at its 31 May 2018 Board Meeting (Salt and Nitrate Control Programs). The Basin Plan amendments became effective on 17 January 2020 and were revised by the Central Valley Water Board in 2020 with [Resolution R5-2020-0057](https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/resolutions/r5-2020-0057_res.pdf) ([https://www.waterboards.ca.gov/centralvalley/board\\_decisions/adopted\\_orders/resolutions/r5-2020-0057\\_res.pdf](https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/resolutions/r5-2020-0057_res.pdf)).
50. For the Basin Plan Salt Control Program, dischargers that are unable to comply with stringent salinity requirements will instead need to meet performance-based requirements and participate in a basin-wide effort known as the Prioritization and Optimization Study (P&O Study) to develop a long-term salinity strategy for the Central Valley. The Discharger was issued a Notice to Comply for the Salt Control Program on 5 January 2021 (CV-SALTS ID: 3309). On 6 December 2023, the Central Valley Water Board received a Notice of Intent for the Facility. The Discharger elected to participate in the P&O Study. In the interim, to maintain existing salt discharges and minimize salinity impacts, this Order does the following:
  - a. Requires the Discharger to continue efforts to control salinity in its discharge to the extent feasible; and

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<sup>2</sup> Central Valley Water Board may apply limits more stringent than MCLs to ensure that waters do not contain chemical constituents in concentrations that adversely affect beneficial uses.

- b. Sets a Salinity Action Level of 1,300 µmhos/cm at Discharge Point 001 (Monitoring Location EFF-001B) and 1,420 µmhos/cm at Discharge Point 002 (Monitoring Location EFF-002B).
51. For the Basin Plan Nitrate Control Program, the Facility is not within an identified basin/sub-basin. For basin/sub-basins not identified, the Nitrate Control Program will apply when the Central Valley Water Board’s Executive Officer determines it is necessary and appropriate to address nitrate discharges to localized groundwater.
  52. As these strategies are implemented, the Central Valley Water Board may find it necessary to modify the requirements of these WDRs. As such, this Order may be amended or modified to incorporate any newly applicable requirements to ensure that the goals of the Salt and Nitrate Control Programs are met.

Antidegradation Policy

53. The *Statement of Policy with Respect to Maintaining High Quality Waters in California*, State Water Board Resolution 68-16 (Antidegradation Policy), which is incorporated as part of the Basin Plan, prohibits the Central Valley Water Board from authorizing degradation of “high quality waters” unless it is shown that such degradation: (1) will be consistent with the maximum benefit to the people of California; (2) will not unreasonably affect beneficial uses, or otherwise result in water quality less than as prescribed in applicable policies; and (3) is minimized through the discharger’s best practicable treatment or control (BPTC).
54. To better characterize municipal groundwater conditions, staff reviewed the Discharger’s self-monitoring reports for 2017 and 2021. The nitrate data was provided by Bear Valley Community Services District Consumer Confidence Reports from 2018 through 2022. See table 6 below:

**Table 6 – Municipal Wells Groundwater Quality**

Constituent	Units	Detection Range	Average	Year
Nitrate as N	mg/L	1.2 – 4.8 (annual avg)	3.8	2018-2022
Chloride	mg/L	13 – 54	30.2	2017
Electrical Conductivity	umhos/cm	565 and 609	587	2017 and 2021
Total Dissolved Solids	mg/L	280 – 510	401	2017

55. Constituents of concern that have the potential to degrade groundwater include salinity (i.e., EC or TDS) and nitrogen (nitrate as nitrogen), as discussed below.

**Table 7– Constituents with Potential for Degradation**

Constituent	Units	Average Effluent (2016-2022)	Groundwater	MCLs
EC	umhos/cm	1,091 (EFF-001B) 1,182 (EFF-002B)	565 and 609	900-1,600
TDS	mg/L	683 (EFF-001B)	280 – 510	500-1,000
Nitrate (as N)	mg/L	26 (EFF-002A)	1.2 – 4.8	10

- a. **Electrical Conductivity.** The Facility’s annual average effluent EC levels were approximately 1,091 umhos/cm (EFF-001B) and 1,182 umhos/cm (EFF-002B) from 2016 through 2022. The groundwater on average is approximately 587 umhos/cm. Based on the available data, some salinity degradation may result from the Facility’s discharge.

To comply with the Salt Control Program, the Discharger selected to participate in the P&O Study, a basin-wide planning effort to develop a long-term salinity strategy for the Central Valley. Meanwhile, to help ensure the Discharger continues to implement salinity reduction and control measures and to protect groundwater quality, this Order includes a Salinity Action Level. Therefore, this Order includes annual average Salinity Action levels of 1,300 µmhos/cm for EC at Monitoring Location 001B and 1,420 µmhos/cm at Monitoring Location 002B, and a requirement to continue implementing the SEMP with a requirement to update the SEMP if an action level is exceeded.

- b. **Nitrate.** The Facility does not have an effluent limit for nitrate; however, the Discharger does monitor for nitrate (as N) at Discharge Point 002. The disinfected tertiary-treated domestic wastewater is used for irrigation on the Bear Valley Oak Tree Country Club Golf course and on the landscape surrounding the Facility, which will be regulated by the Reclamation General Order. None of the Facility’s solids and wastewater treatment and containment units are unlined which significantly reduces the potential for nitrate, and other waste constituents, to migrate to underlying groundwater. Based on the available data and the Facility’s containment features, the Facility’s discharge is expected to have a very limited impact on underlying groundwater quality for nitrate and not expected to unreasonably affect beneficial uses, or otherwise result in water quality less than as prescribed in applicable policies. Additionally, the Facility is not within an identified basin/sub-basin, thus, the Basin Plan Nitrate Control Program does not apply to the Facility.

[TENTATIVE] WASTE DISCHARGE REQUIREMENTS ORDER R5-2024-####  
BEAR VALLEY COMMUNITY SERVICES DISTRICT  
BEAR VALLEY COMMUNITY SERVICES DISTRICT WASTEWATER TREATMENT FACILITY  
KERN COUNTY

56. This Order does not allow for an increase in flow or a substantial increase in pollutant concentrations to land or surface water from previous orders regulating the Facility discharge (i.e., Order R5-2002-0113, Order R5-2008-0121, Order R5-2015-0011). Therefore, a complete antidegradation analysis is not necessary.
57. This Order contains Effluent Limitations to ensure the Facility's discharges will not threaten the present and anticipated beneficial uses of surface water and groundwater or result in water quality less than applicable WQOs.
58. The Discharger proposes, or the WDRs will require the Discharger to implement, the following measures, which will minimize the extent of water quality degradation resulting from the Facility's continued operation, and which the Central Valley Water Board have determined constitute BPTC:
  - a. Disinfected Tertiary-Treatment of Domestic Wastewater;
  - b. Recycling of water to the golf course and surrounding area;
  - c. Discharge limits for flow, BOD<sub>5</sub>, TSS, pH, ammonia, total coliform organisms, and total residual chlorine;
  - d. Compliance with the Salt Control Program and with the Salinity Action levels;
  - e. Use of lined sludge drying beds and effluent storage pond;
  - f. Biosolids transported offsite;
  - g. Certified operators to ensure proper operation and maintenance.
59. Generally, limited degradation of groundwater and surface water by some of the typical constituents of concern (e.g., EC and nitrate) released with the discharge from a municipal wastewater utility, after effective source control and treatment, is consistent with the maximum benefit to the people of the state. The technology, energy, water recycling, and waste management advantages of a municipal utility service far exceed any benefits derived from a community otherwise reliant on numerous concentrated individual wastewater systems, and the impacts on water quality will be substantially less. Accordingly, to the extent that any degradation occurs as the result of the Facility's continued operation, such degradation is consistent with the maximum interest of the people of the State of California.
60. Based on the foregoing, the adoption of this Order is consistent with the State Water Board's Antidegradation Policy.

### **Time Schedule Provisions**

61. At the time of adoption, it appears that Facility discharges will not immediately comply with the Effluent Limitations prescribed herein, specifically with respect to pH. Therefore, a Time Schedule is established in these WDRs.
62. On 15 July 2020, the Discharger submitted a request and justification for a time schedule in an Infeasibility Report for pH. The request provided detailed information supporting the infeasibility to immediately comply with the effluent limitations. For compliance with the final effluent limitations for pH, the Discharger has requested time to:
  - a. Monitor and evaluate pH at Monitoring Location EFF-001B;
  - b. Develop and implement alternatives for pH control; and
  - c. Construct new treatment controls and/or modify the existing treatment process.
63. This Order therefore contains a Time Schedule (§ K) for Facility improvements, which are reasonably calculated to achieve compliance with prescribed Effluent Limitations in the timeframe that is as short as practicable. (Wat. Code, §§ 13263(c), 13300; Cal. Code Regs., tit. 23, § 2231.)

### **California Environmental Quality Act**

64. The issuance of this Order, which prescribes requirements and monitoring of waste discharges at an existing facility, with negligible or no expansion of its existing use, is exempt from the procedural requirements of the California Environmental Quality Act (CEQA), Public Resources Code section 21000 et seq., pursuant to California Code of Regulations, title 14, section 15301. The discharges authorized under this Order are substantially within parameters established under prior WDRs, particularly with respect to character and volume of discharges.
65. To the extent that the construction of any new basins, ponds, and/or surface impoundments are authorized pursuant to this Order, such features involve minor alterations to land, which are exempt from CEQA procedural requirements pursuant to California Code of Regulations, title 14, section 15304.
66. This Order is further exempt from CEQA procedural requirements insofar as it is adopted for protection of the environment and does not authorize construction activities or the relaxation of standards allowing for environmental degradation, in accordance with California Code of Regulations, title 14, section 15308.

### **Other Regulatory Considerations**

#### Water Code Section 13149.2

67. These WDRs regulate a facility that may impact a disadvantaged community and tribal community and includes a time schedule and an alternative compliance path that allows the Discharger time to come into compliance with water quality objectives (i.e., pH and salinity). For pH, a Time Schedule is established in these WDRs for the discharge to come into compliance in a timeframe as short as practicable. For salinity, the Discharger has selected the Alternative Salinity Permitting Approach for the Salt Control Program, which provides an alternative approach for compliance with salinity limits through implementation of specific requirements (i.e., support facilitation and completion of the Salinity P&O Study). The Central Valley Water Board has satisfied the outreach requirements set forth in Water Code section 189.7 by conducting outreach in affected disadvantaged and tribal communities through its notice and comment procedures and through a 21 April 2023 notice of an opportunity to comment on these WDRs. Pursuant to Water Code section 13149.2, and as discussed in the following finding, the Central Valley Water Board reviewed readily available information and information raised to the Board by interested persons concerning anticipated water quality impacts in disadvantaged or tribal communities resulting from adoption of these WDRs. The Board also considered environmental justice concerns within the Board's authority previously raised by interested persons with regard to those impacts.
68. The Central Valley Water Board anticipates that the issuance of these WDRs will result in water quality impacts within the scope of the Board's authority. Specifically, these WDRs authorize the continued discharge of wastewater with salinity concentrations above applicable water quality objectives. The Facility's effluent has an annual average EC around 1,100 µmhos/cm at Monitoring Location EFF-001B and 1,200 µmhos/cm at Monitoring Location EFF-002B. While these concentrations exceed the water quality objectives for MUN (municipal and domestic supply), available groundwater data indicate the Facility's historical discharge has not caused a significant impact to surrounding communities. Water quality data from nearby wells show water quality levels below the applicable drinking water MCLs for salinity (see Groundwater and Subsurface and Antidegradation sections for further information).
69. The Central Valley Water Board has identified the following measures available and within the scope of its authority to address the impacts of the Facility to the nearest disadvantaged communities in Kern County: 1) requiring compliance with the Time Schedule to bring pH into compliance with the applicable WQO as quickly as reasonably possible, 2) requiring active participation in the P&O Study and compliance with the Salt Control Program, which is intended to identify long-term salinity management and control practices and/or



technologies, 3) requiring maintenance of current discharge concentrations for salt (e.g., establishing a Salinity Action Plan), 4) requiring application of recycled wastewater at agronomic rates with irrigation of supplemental water as needed, and 5) requiring the preparation and implementation of Salinity Evaluation and Minimization Plan to establish goals for potentially reducing salinity concentrations in the Facility's discharge.

#### Human Right to Water

70. Pursuant to Water Code section 106.3, subdivision (a), it is “the established policy of the state that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes.” Although this Order is not subject to Water Code section 106.3, as it does not revise, adopt, or establish a policy, regulation, or grant criterion (see § 106.3, subd. (b)), it nevertheless promotes the policy by requiring discharges to meet MCLs for drinking water (excluding salinity and nitrate), which are designed to protect human health and ensure that water is safe for domestic use. For salinity, this Order requires compliance with the Salt Control Program. Although the Basin Plans' Exceptions Policy for Salinity allows participants in this Program to obtain limited-term exceptions from MCLs for salinity, this Program is consistent with the Human Right to Water Policy because its over-arching management goals and priorities include short-term provision of safe drinking water to impacted users and long-term restoration of impacted groundwater basins and sub-basins where reasonable, feasible, and practicable.

#### Threat-Complexity Rating

71. For the purposes of California Code of Regulations, title 23 (Title 23), section 2200, the Facility has a threat-complexity rating of 2-B.
- a. Threat Category “2” reflects waste discharges that can impair receiving water beneficial uses, cause short-term water quality objective violations, cause secondary drinking water standard violations, and cause nuisances.
  - b. Complexity Category “B” reflects any discharger not included in Category A, with either (1) physical, chemical or biological treatment systems (except for septic systems with subsurface disposal), or (2) any Class II or Class III WMUs.

#### Title 27 Exemption

72. This Order, which prescribes WDRs for discharges of domestic sewage or treated effluent from a municipal treatment plant, is exempt from the prescriptive requirements of California Code of Regulations, title 27 (Title 27), section 20005 et seq. (See Cal. Code Regs., tit. 27, § 20090, subd. (a).)

### Stormwater

73. The NPDES Industrial Stormwater Program regulates stormwater discharges from wastewater treatment facilities. Wastewater treatment plants are applicable industries under the stormwater program and are obligated to comply with the federal regulations. The State Water Board does not require wastewater treatment facilities with design flows less than 1 mgd to obtain coverage under the Industrial Stormwater General Order. Therefore, this Order does not regulate stormwater.

### Sanitary Sewer Overflows

74. The sanitary sewer system collects wastewater and consists of sewer pipes, manholes, and/or other conveyance system elements that direct raw sewage to the Facility.
75. Sanitary Sewer Overflows<sup>3</sup> (SSO), which typically consist of a mixture of domestic and commercial wastewater, often contain pathogenic organisms, toxic pollutants, nutrients, oxygen demanding organic compounds, oil and grease, suspended solids, and other pollutants. When an SSO results in a discharge to surface water, it can cause temporary exceedances of water quality objectives, pose a threat to public health, adversely affect aquatic life, and impair recreational use and aesthetic enjoyment of surface waters in the area. The most common causes are grease blockages, root blockages, debris blockages, sewer line flood damage, manhole structure failures, vandalism, pump station mechanical failures, power outages, storm or groundwater inflow/infiltration, lack of capacity, and/or contractor-caused blockages.
76. On 6 December 2022, the State Water Board adopted and on 5 June 2023 Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, State Water Board Order 2022-0103-DWQ (SSO General Order) became effective. It requires that all public agencies owning or operating sanitary sewer systems with total system lengths in excess of one mile enroll under the SSO General Order. The Facility's collection system exceeds one mile in length and has been enrolled under the SSO General Order since 5 June 2023.

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<sup>3</sup> For the purposes of this Order, a “**Sanitary Sewer Overflow**” is a discharge to ground or surface water from the sanitary sewer system at any point upstream of the treatment facility. Temporary storage and conveyance facilities (e.g., wet wells, regulated impoundments, tanks, highlines, etc.) may be part of a sanitary sewer system and discharges to these facilities are not considered SSOs, provided that the waste is fully contained within these temporary storage/conveyance facilities.

### Biosolids

77. The United States Environmental Protection Agency (US EPA) has promulgated biosolids reuse regulations in Code of Federal Regulations (CFR), title 40, part 503, Standards for the Use or Disposal of Sewage Sludge (Part 503), which establishes management criteria for protection of ground and surface waters, sets limits and application rates for heavy metals, and establishes stabilization and disinfection criteria. The Central Valley Water Board is not the implementing Agency for Part 503 regulations. The Discharger may have separate and/or additional compliance, reporting, and permitting responsibilities to the US EPA.

### Scope of Order

78. This Order is strictly limited in scope to those waste discharges, activities, and processes described and expressly authorized herein.
79. Pursuant to Water Code section 13264, subdivision (a), the Discharger is prohibited from initiating the discharge of new wastes (i.e., other than those described herein), or making material changes to the character, volume, and timing of waste discharges authorized herein, without filing a new ROWD per Water Code section 13260.
80. Failure to file a new ROWD before initiating material changes to the character, volume, or timing of discharges authorized herein, shall constitute an independent violation of these WDRs.
81. This Order is also strictly limited in applicability to those individuals and/or entities specifically designated herein as "Discharger," subject only to the discretion to designate or substitute new parties in accordance with this Order.

### Procedural Matters

82. All of the above information, as well as the information contained in the attached Information Sheet (incorporated herein), was considered by the Central Valley Water Board in prescribing the WDRs set forth below.
83. The Discharger, interested agencies, and other interested persons were notified of the Central Valley Water Board's intent to prescribe the WDRs in this Order, and provided an opportunity to submit their written views and recommendations at a public hearing. (See Wat. Code, § 13167.5.)
84. At a public meeting, the Central Valley Water Board heard and considered all comments pertaining to the discharges regulated under this Order.

85. The Central Valley Water Board will review and revise the WDRs in this Order as necessary.

## REQUIREMENTS

**IT IS HEREBY ORDERED**, pursuant to Water Code sections 13263 and 13267: that WDRs Order R5-2015-0011 (NPDES NO. CA0081213) is rescinded (except for enforcement purposes); and that the Discharger and their agents, employees and successors shall comply with the following.

### A. Standard Provisions and Reporting Requirements

Except as expressly provided herein, the Dischargers shall comply with the Standard Provisions and Reporting Requirements dated 1 March 1991 (SPRRs), which are incorporated herein.

### B. Discharge Prohibitions

1. Waste classified as “hazardous” (per Cal. Code Regs., tit. 22, § 66261.1 et seq.), shall not be discharged at the Facility under any circumstance.
2. Waste constituents shall not be discharged or otherwise released from the Facility (including during treatment and storage activities) in a manner that results in:
  - a. Violations of the Groundwater Limitations of this Order; or
  - b. Conditions of “nuisance” or “pollution,” as defined per Water Code section 13050.
3. Except as otherwise expressly authorized in this Order, sewage and other waste shall not be discharged to surface waters or surface water drainage courses (including irrigation ditches outside of Discharger’s control).
4. Except as provided in Section E.2 of the SPRRs, incorporated herein, untreated wastes and partially treated wastes shall not bypass the treatment system.
5. Waste shall not be discharged from the Facility in a manner other than as described in this Order.
6. Toxic substances shall not be discharged into the wastewater treatment system such that biological treatment mechanisms are substantially disrupted.

**C. Flow Limitations - Discharge Points 001 and 002**

1. The monthly average daily dry weather discharge flow (1 May through 31 October) shall not exceed 0.25 million gallons per day (mgd). Compliance to be measured at Monitoring Location EFF-001A and EFF-002A.

**D. Effluent Limitations – Discharge Points 001 and 002**

1. The Discharger shall maintain compliance with the following effluent limitations at Discharge Point 001:
  - a. The Discharger shall maintain compliance with the effluent limitations specified in Table 8:

**Table 8 – Effluent Limits – Discharge Point 001**

Constituent	Parameter	Units	Limit	Monitoring Location
Biochemical Oxygen Demand (BOD), 5-day @ 20°Celsius	Monthly Average	mg/L	10	EFF-001A
	--	Daily Maximum	mg/L	20
Total Suspended Solids (TSS)	Monthly Average	mg/L	10	EFF-001A
	--	Daily Maximum	mg/L	20
pH	Instantaneous Minimum	Standard Units	6.5	EFF-001B
	--	Instantaneous Maximum	Standard Units	8.3
Ammonia Nitrogen, Total as N	Weekly Average	mg/L	2.3	EFF-001B
	--	Monthly Average	mg/L	1.2

- b. **pH (Interim Limit). Effective immediately and until <5 years from WDR adoption>**, the effluent shall not be less than 6.5 (standard units) as an instantaneous minimum nor exceed 8.3 (standard units)

as an instantaneous maximum. Compliance shall be measured at Monitoring Location EFF-001A. This interim effluent limitation shall apply in lieu of the effluent limitations for pH in Table 8 above (see section K below).

- c. **Percent Removal.** The average monthly percent removal of BOD<sub>5</sub> and total suspended solids (TSS) shall not be less than 85 percent. Compliance to be measured at Monitoring Location EFF-001A.
- d. **Total Residual Chlorine.** Effluent total residual chlorine shall not exceed:
  - i. 0.011 mg/L, as a 4-day average.
  - ii. 0.019 mg/L, as a 1-hour average.Compliance to be measured at Monitoring Location EFF-001B.
- e. **Total Coliform Organisms.** Effluent total coliform organisms shall not exceed:
  - i. 2.2 most probable number (MPN) per 100 mL, as a 7-day median.
  - ii. 23 MPN/100 mL, more than once in any 30-day period.
  - iii. 240 MPN/10 mL, at any time.

Compliance to be measured at Monitoring Location EFF-001A.

- 2. The Discharger shall maintain compliance with the following effluent limitations at Discharge Point 002:
  - a. The Discharger shall maintain compliance with the effluent limitations specified in Table 9:

**Table 9 – Effluent Limits – Discharge Point 002**

Constituent	Parameter	Units	Limit	Monitoring Location
Biochemical Oxygen Demand (BOD), 5-day @ 20°Celsius	Monthly Average	mg/L	10	EFF- 002A
	--	Daily Maximum	mg/L	20
Total Suspended Solids (TSS)	Monthly Average	mg/L	10	EFF-002A
	--	Daily Maximum	mg/L	20

- b. **Percent Removal.** The average monthly percent removal of BOD<sub>5</sub> and total suspended solids (TSS) shall not be less than 85 percent. Compliance to be measured at Monitoring Location EFF-002A.
- c. **Total Coliform Organisms.** Effluent total coliform organisms shall not exceed:
  - i. 2.2 most probable number (MPN) per 100 mL, as a 7-day median.
  - ii. 23 MPN/100 mL, more than once in any 30-day period.
  - iii. 240 MPN/10 mL, at any time.

Compliance to be measured at Monitoring Location EFF-002A.

**E. Salinity Action Level**

1. To comply with the Salt Control Program, the Discharger has selected the Alternative Salinity Permitting Approach (i.e., participation in the P&O Study). Therefore, as discussed in the Order Findings, these WDRs establish a **Salinity Action Level of 1,300 µmhos/cm at Monitoring Location EFF-001B and 1,420 µmhos/cm at Monitoring Location EFF-002B**. The Salinity Action level was calculated using the highest annual average EC and adding approximately 20 percent to account for water conservation and potential changes in source water quality. As part of the Annual Report required in the MRP, the Discharger shall calculate the Facility’s annual average effluent EC at Monitoring Locations EFF-001B and EFF-002B and compare the results to the respective Salinity Action Levels. If the Facility’s discharge exceeds a Salinity Action Level, the Discharger shall submit a Salinity Action Level Report **by 1 March** of the year following the exceedance of a Salinity Action Level. The Salinity Action Level Report shall, at a minimum, include the following:

- a. An evaluation of the Facility's salinity effluent levels. This evaluation should include a discussion of any changes to the source water for the area served by the WWTF, any new industrial dischargers discharging to the WWTF, any increased conservation efforts implemented within the WWTF service area (with flow data demonstrating decreased flows to the Facility), and any other changes to Facility's collection or treatment system that could have contributed to the increased salinity concentrations.
- b. If additional time is needed to investigate the source(s) of the salinity in the Facility's discharge, the Salinity Action Level Report shall include a detailed work plan describing what actions the Discharger will conduct (with completion dates) to investigate the source(s) of salinity and report its findings to the Central Valley Water Board. The findings from the investigation shall be submitted to the Central Valley Water Board **no later than October 1<sup>st</sup>** of the year following the exceedance of the Salinity Action Level.
- c. The Salinity Action Level Report shall evaluate the potential impact the increased salinity concentrations could have on underlying groundwater and downgradient users. If additional time is needed for this evaluation, the Salinity Action Level Report shall propose a submittal date (no later than October 1<sup>st</sup> of the year following the exceedance of the Salinity Action Level).

## **F. Whole Effluent Toxicity**

### **1. Toxicity Reduction Evaluation (TRE) Targets.**

- a. Chronic Whole Effluent Toxicity Median Monthly Effluent Target (MMET). No more than one chronic aquatic toxicity test initiated in a calendar month shall result in a "Fail" at the IWC for any endpoint.
- b. Chronic Whole Effluent Toxicity Maximum Daily Effluent Target (MDET).
  - i. For cladoceran (water flea - *Ceriodaphnia dubia*) and fathead minnow (*Pimephales promelas*) - No chronic aquatic toxicity test shall result in a "Fail" at the IWC for the sub-lethal endpoint measured in the test and a percent effect for the survival endpoint greater than or equal to 50 percent.
  - ii. For green alga (*Pseudokirchneriella subcapitata*) – No chronic aquatic toxicity test shall result in a "Fail" at the IWQ for any sub-



lethal endpoint measured in the test and a percent effect for that sub-lethal endpoint greater than or equal to 50 percent.

2. **TRE Implementation.** The Discharger is required to initiate a TRE when there is any combination of two or more chronic toxicity MDET or MMET that are not met within a single toxicity calendar month or within two successive toxicity calendar months. In addition, if other information indicates toxicity (e.g., results of additional monitoring, 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.
  - a. Preparation and Implementation of Detailed TRE Action Plan. The Discharger shall conduct TREs in accordance with an approved TRE Work Plan. Within 30 days of the test result that triggered the TRE, the Discharger shall submit to the Executive Officer a TRE Action Plan per the Discharger's approved TRE Work Plan. The TRE Action Plan shall include the following information, and comply with additional conditions set by the Executive Officer:
    - i. Specific actions the Discharger will take to investigate and identify the cause(s) of toxicity, including a TRE WET monitoring schedule;
    - ii. Specific actions the Discharger will take to mitigate the impact of the discharge and prevent the recurrence of toxicity; and
    - iii. A schedule for these actions, progress reports, and the final report.
  - b. The Central Valley Water Board recognizes that toxicity may be episodic and identification of causes and reduction of sources of toxicity may not be successful in all cases. The TRE may end at any stage if monitoring finds there is no longer toxicity.
3. **TRE Work Plan.** The Discharger shall submit to the Central Valley Water Board a TRE Work Plan for approval by the Executive Officer by **<365 DAYS FROM ORDER EFFECTIVE DATE>**. If the Executive Officer does not disapprove the work plan within 60 days, the work plan shall become effective. The TRE Work Plan shall outline the procedures for identifying the source(s) of and reducing or eliminating effluent toxicity. The TRE Work Plan must be of adequate detail to allow the Discharger to immediately initiate a TRE and shall be developed in accordance with U.S. EPA guidance as discussed below.
  - a. Toxicity Reduction Evaluation Guidance for Municipal Wastewater Treatment Plants, EPA/833-B-99/002, August 1999.

- b. Generalized Methodology for Conducting Industrial Toxicity Reduction Evaluations (TREs), EPA/600/2-88/070, April 1989.
- c. Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization Procedures, Second Edition, EPA 600/6-91/003, February 1991.
- d. Toxicity Identification Evaluation: Characterization of Chronically Toxic Effluents, Phase I, EPA/600/6-91/005F, May 1992.
- e. Methods for Aquatic Toxicity Identification Evaluations: Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity, Second Edition, EPA/600/R-92/080, September 1993.
- f. Methods for Aquatic Toxicity Identification Evaluations: Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity, Second Edition, EPA 600/R-92/081, September 1993.
- g. Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms, Fifth Edition, EPA-821-R-02-012, October 2002.
- h. Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, Fourth Edition, EPA-821-R-02-013, October 2002.
- i. Technical Support Document for Water Quality-based Toxics Control, EPA/505/2-90-001, March 1991.

**G. Discharge Specifications**

- 1. The production of recycled water shall conform to an Engineering Report prepared pursuant to Title 22, section 60323 and approved by DDW.
- 2. Production of recycled water shall be at least disinfected tertiary recycled water as defined in Title 22, section 60301. Recycled water shall be oxidized, coagulated, filtered, and adequately disinfected pursuant to DDW recycling criteria (Title 22, div. 4, ch. 3).
- 3. Wastewater discharged to Sycamore Creek shall be at least disinfected tertiary recycled water as defined in Title 22, section 60301, or equivalent. Wastewater shall be oxidized, coagulated, filtered, and adequately disinfected pursuant to DDW recycling criteria (Title 22, div. 4, ch. 3), or equivalent.

4. Turbidity, expressed as Nephelometric Turbidity Units (NTUs), shall not exceed the limits specified below:
  - a. When coagulation is used, the Discharger shall operate the treatment system to ensure that the turbidity measurement at a location representative of effluent from the filtration system prior to disinfection shall not exceed:
    - i. An average of 2 NTU within a 24-hour period;
    - ii. 5 NTU more than 5 percent of the time within a 24-hour period; and
    - iii. 10 NTU at any time.
  - b. When coagulation is not used, the Discharger shall operate the treatment system to ensure:
    - i. The turbidity of the influent to the filtration unit shall not exceed 5 NTU for more than 15 minutes and never exceed 10 NTU; and
    - ii. The effluent turbidity measured at a location representative of effluent from the filtration system prior to disinfection shall not exceed 2 NTU at any time.
5. A chlorine disinfection process following filtration shall provide a CT (the product of total chlorine residual and modal contact time measured at the same point) value of not less than 450 milligram-minutes per liter at all times with a modal contact time of at least 90 minutes, based on peak dry weather design flow.
6. All systems and equipment shall be operated to optimize discharge quality.
7. All conveyance, treatment, storage, and disposal systems shall be designed, constructed, operated, and maintained to prevent inundation or washout due to floods with a 100-year return frequency.
8. Public contact with wastewater at the Facility shall be prevented through such means as fences, signs, or acceptable alternatives.
9. Objectionable odors shall not be perceivable beyond the limits of the Facility property at an intensity that creates or threatens to create nuisance conditions.
10. As a means of ensuring compliance with Discharge Specification G.9, the dissolved oxygen (DO) content in the upper one foot of any wastewater treatment or storage pond shall not be less than 1.0 mg/L for three

consecutive sampling events. Notwithstanding the DO monitoring frequency specified in the monitoring and reporting program, if DO in any single pond is below 1.0 mg/L for any single sampling event, the Discharger shall implement daily DO monitoring of that pond until the minimum DO concentration is achieved for at least three consecutive days. If DO in any single pond is below 1.0 mg/L for three consecutive days, the Discharger shall report the findings to the Central Valley Water Board in accordance with **Section B.1** of the SPRRs. The written notification shall include a specific plan to resolve the low DO results within 30 days of the first date of violation.

11. The Discharger shall design, construct, operate, and maintain all ponds sufficiently to protect the integrity of containment dams and berms and prevent overtopping and/or structural failure. The operating freeboard in any pond shall never be less than two feet (measured vertically from the lowest possible point of overflow). As a means of management and to discern compliance with this requirement, the Discharger shall install and maintain in each pond a permanent staff gauge with calibration marks that clearly show the water level at design capacity and enable determination of available operational freeboard.
12. Wastewater treatment, storage, and disposal ponds or structures shall have sufficient capacity to accommodate allowable wastewater flow, design seasonal precipitation, and ancillary inflow and infiltration during the winter while ensuring compliance with all requirements of this Order. Design seasonal precipitation shall be based on total annual precipitation using a return period of 100 years, distributed monthly in accordance with historical rainfall patterns.
13. On or about 1 October of each year, available capacity shall at least equal the volume necessary to comply with Discharge Specifications G.11 and G.12.
14. All ponds and open containment structures shall be managed to prevent breeding of mosquitoes. Specifically:
  - a. An erosion control program shall be implemented to ensure that small coves and irregularities are not created around the perimeter of the water surface.
  - b. Weeds shall be minimized through control of water depth, harvesting, or herbicides.
  - c. Dead algae, vegetation, and debris shall not accumulate on the water surface.

- d. The Discharger shall consult and coordinate with the local Mosquito Abatement District to minimize the potential for mosquito breeding as needed to supplement the above measures.
15. Newly constructed or rehabilitated berms or levees (excluding internal berms that separate ponds or control the flow of water within a pond) shall be designed and constructed under the supervision of a California Registered Civil Engineer.

## H. Groundwater Limitations

1. Discharges of waste shall not cause or contribute to groundwater containing constituent concentrations in excess of the concentrations specified below or natural background water quality, whichever is greater:
  - a. Total coliform organism level of 2.2 MPN/100 mL over any seven-day period.
  - b. Constituents in concentrations that exceed either Primary or Secondary MCLs established in Title 22, excluding salinity.
  - c. Contain taste or odor-producing constituents, toxic substances, or any other constituents in concentrations that cause nuisance or adversely affect beneficial uses.

## I. Receiving Water Limitations

1. **Surface Water Limitations.** The discharge shall not cause the following in Sycamore Creek:
  - a. **Un-ionized Ammonia.** Un-ionized ammonia to be present in amounts that adversely affect beneficial uses nor to be present in excess of 0.025 mg/L (as N).
  - b. **Bacteria.** The six-week rolling geometric mean of Escherichia coli (E. coli) to exceed 100 colony forming units (cfu) per 100 milliliters (mL), calculated weekly, and a statistical threshold value (STV) of 320 cfu/100 mL to be exceeded by more than 10 percent of the samples collected in a calendar month, calculated in a static manner.
  - c. **Biostimulatory Substances.** Water to contain biostimulatory substances which promote aquatic growths in concentrations that cause nuisance or adversely affect beneficial uses.
  - d. **Chemical Constituents.** Chemical constituents to be present in concentrations that adversely affect beneficial uses.

- e. **Color.** Discoloration that causes nuisance or adversely affects beneficial uses.
- f. **Dissolved Oxygen:**
  - i. The monthly median of the mean daily dissolved oxygen concentration to fall below 85 percent of saturation in the main water mass at centroid of flow;
  - ii. The 95-percentile dissolved oxygen concentration to fall below 75 percent of saturation; nor
  - iii. The dissolved oxygen concentration to be reduced below 5.0 mg/L at any time.
- g. **Floating Material.** Floating material, including but not limited to solids, liquids, foams, and scum, to be present in amounts that cause nuisance or adversely affect beneficial uses.
- h. **Oil and Grease.** Oils, greases, waxes, or other materials to be present in concentrations that cause nuisance, result in a visible film or coating on the surface of the water or on objects in the water, or otherwise adversely affect beneficial uses.
- i. **pH.** The pH to be depressed below 6.5 nor raised above 8.3.
- j. **Pesticides:**
  - i. Pesticides to be present, individually or in combination, in concentrations that adversely affect beneficial uses;
  - ii. Pesticides to be present in bottom sediments or aquatic life in concentrations that adversely affect beneficial uses.
- k. **Radioactivity.** Radionuclides to be present in concentrations that are deleterious to human, plant, animal, or aquatic life nor that result in the accumulation of radionuclides in the food web to an extent that presents a hazard to human, plant, animal, or aquatic life.
- l. **Suspended Sediment.** The suspended sediment load and suspended sediment discharge rate of surface waters to be altered in such a manner as to cause nuisance or adversely affect beneficial uses.
- m. **Settleable Material.** Substances to be present in concentrations that result in the deposition of material that causes nuisance or adversely affects beneficial uses.

- n. **Suspended Material.** Suspended material to be present in concentrations that cause nuisance or adversely affect beneficial uses.
- o. **Taste and Odors.** Taste- or odor-producing substances to be present in concentrations that impart undesirable tastes or odors to fish flesh or other edible products of aquatic origin, or to domestic or municipal water supplies.
- p. **Temperature.** The natural temperature to be increased by more than 5 degrees Fahrenheit. Compliance to be determined based on the difference in temperature at Monitoring Locations RSW-001 and RSW-002.
- q. **Toxicity.** Toxic substances to be present, individually or in combination, in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life.
- r. **Turbidity.** Turbidity to increase more than:
  - i. 1 NTU where natural turbidity is between 0 and 5 NTUs;
  - ii. 20 percent where natural turbidity is between 5 and 50 NTUs;
  - iii. 10 NTUs where natural turbidity is between 50 and 100 NTUs; nor
  - iv. 10 percent where natural turbidity is greater than 100 NTUs.

#### **J. Solids Disposal Specifications**

- 1. Sludge<sup>4</sup> and Solid Waste<sup>5</sup> shall be removed from screens, sumps, ponds, and clarifiers as needed to ensure optimal plant operation.

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<sup>4</sup> For the purposes of this section, “**sludge**” means the solid, semisolid, and liquid residues removed during primary, secondary, or advanced wastewater treatment processes.

<sup>5</sup> For the purposes of this section, “**solid waste**” includes grit and screenings generated during preliminary treatment at the Facility.

2. Onsite handling and storage of Residual Sludge,<sup>6</sup> Solid Waste, and Biosolids<sup>7</sup> shall be temporary (two years or less); and controlled and contained in a manner that minimizes leachate formation and precludes infiltration of waste constituents into soils in a mass or concentration that will violate the Groundwater Limitations of this Order.
3. Residual sludge, biosolids, and solid waste shall be disposed of in a manner approved by the Executive Officer and consistent with Title 27, division 2. Removal for further treatment, disposal, or reuse at disposal sites (i.e., landfills, WWTFs, composting sites, soil amendment sites) operated in accordance with valid waste discharge requirements issued by a regional water board or the State Water Board will satisfy this specification.
4. Use of biosolids as a soil amendment shall comply with valid waste discharge requirements issued by a regional water board or the State Water Board except in cases where a local (e.g., county) program has been authorized by a regional water board. In most cases, this will mean the General Biosolids Order (State Water Board Water Quality Order 2004-12-DWQ, General Waste Discharge Requirements for the Discharge of Biosolids to Land for Use as a Soil Amendment in Agricultural, Silvicultural, Horticultural, and Land Reclamation Activities). For a biosolids use project to be covered by Order 2004-12-DWQ, the Discharger must file a complete Notice of Intent and receive a Notice of Applicability for each project.
5. Use and disposal of biosolids shall comply with the self-implementing federal regulations of 40 Code of Federal Regulations part 503, which are subject to enforcement by the U.S. EPA, not the Central Valley Water Board. If, during the life of this Order, the State accepts primacy for implementation of part 503, the Central Valley Water Board may also initiate enforcement where appropriate.
6. Any proposed change in sludge use or disposal practice shall be reported in writing to the Executive Officer at least 90 days in advance of the change.

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<sup>6</sup> For the purposes of this section, “**residual sludge**” means sludge that will not be subject to further treatment at the Facility.

<sup>7</sup> For the purposes of this section, “**biosolids**” refers to sludge that has been treated and tested and shown to be capable of being beneficially used as a soil amendment for agriculture, silviculture, horticulture, and land reclamation activities pursuant to federal and state regulations.



**K. Time Schedule for pH at Discharge Point 001 (Monitoring Location EFF-001B)**

1. The Discharger shall comply with the time schedule in the following table to ensure completion of the pH compliance project and compliance with final effluent limitations.

**Table 10 – Compliance Schedule for pH**

<b>Task</b>	<b>Description</b>	<b>Compliance Date</b>
1	Submit a technical report presenting the selected method of compliance along with the preliminary engineering and evaluation of alternatives. The report shall also include an implementation schedule.	<1 year from WDR adoption>
2	Submit Annual Progress Reports. The progress reports shall detail the steps taken to comply with this Order including documentation showing completion of tasks, construction progress (if applicable), evaluation of the effectiveness of the implemented measures, and assessment of whether additional measures are necessary to meet the compliance dates.	<2 years from WDR adoption> <3 years from WDR adoption> <4 years from WDR adoption> >5 years from WDR adoption>
3	Comply with final effluent limitations for pH (Compliance measured at EFF-001B).	<5 years from WDR adoption>

**L. Other Provisions**

1. In accordance with California Business and Professions Code sections 6735, 7835, and 7835.1, engineering and geologic evaluations and judgments shall be performed by or under the direction of registered professionals competent and proficient in the fields pertinent to the required activities. All technical reports specified herein that contain workplans for investigations and studies, that describe the conduct of investigations and studies, or that contain technical conclusions and recommendations concerning engineering and geology shall be prepared by or under the direction of appropriately qualified professional(s), even if

not explicitly stated. Each technical report submitted by the Discharger shall bear the professional's signature and stamp.

2. The Discharger shall submit the technical reports and work plans required by this Order for consideration by the Executive Officer and incorporate comments the Executive Officer may have in a timely manner, as appropriate. Unless expressly stated otherwise in this Order, the Discharger shall proceed with all work required by the foregoing provisions by the due dates specified.
3. The Discharger shall comply with the separately issued Monitoring and Reporting Program R5-2024-####, and any revisions thereto as ordered by the Executive Officer. The submittal dates of Discharger self-monitoring reports shall be no later than the submittal date specified in the MRP.
4. A copy of this Order including the MRP, Information Sheet, Attachments, and SPRRs, shall be kept at the discharge facility for reference by operating personnel. Key operating personnel shall be familiar with its contents.
5. The Discharger shall comply with the Salt Control Program adopted in Resolution R5-2018-0034 (and revised per Resolution R5-2020-0057) for addressing ongoing salt accumulation in the Central Valley developed as part of the Central Valley Salinity Alternatives for Long-Term Sustainability (CV-SALTS) initiative.
6. The Discharger shall continue to implement its Salinity Evaluation and Minimization Plan dated 26 June 2018.
7. The Discharger shall comply with all conditions of this Order, including timely submittal of technical and monitoring reports. On or before each report due date, the Discharger shall submit the specified document to the Central Valley Water Board or, if appropriate, a written report detailing compliance or noncompliance with the specific schedule date and task. If noncompliance is being reported, then the Discharger shall state the reasons for such noncompliance and provide an estimate of the date when the Discharger will be in compliance. The Discharger shall notify the Central Valley Water Board in writing when it returns to compliance with the time schedule. Violations may result in enforcement action, including Central Valley Water Board or court orders requiring corrective action or imposing civil monetary liability, or in revision or rescission of this Order.
8. The Discharger shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the Discharger to achieve compliance with the conditions of this Order. Proper operation and maintenance also includes

adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems that are installed by the Discharger when the operation is necessary to achieve compliance with the conditions of this Order.

9. The Discharger shall use the best practicable cost-effective control technique(s), including proper operation and maintenance, to comply with this Order.
10. The Discharger shall provide certified wastewater treatment plant operators in accordance with Title 23, division 3, chapter 26.
11. As described in the SPRRs, the Discharger shall report promptly to the Central Valley Water Board any material change or proposed change in the character, location, or volume of the discharge.
12. The Discharger shall comply with the requirements of the Statewide General Waste Discharge Requirements (General WDRs) for Sanitary Sewer Systems (Water Quality Order 2022-0103-DWQ), and any subsequent revisions thereto. Water Quality Order 2022-0103-DWQ requires the Discharger to notify the Central Valley Water Board and take remedial action upon the reduction, loss, or failure of the sanitary sewer system resulting in a sanitary sewer overflow.
13. The Discharger shall report to the Central Valley Water Board any toxic chemical release data it reports to the State Emergency Response Commission within 15 days of reporting the data to the Commission pursuant to section 313 of the "Emergency Planning and Community Right to Know Act of 1986."
14. The Discharger shall not allow pollutant-free wastewater to be discharged into the wastewater collection, treatment, and disposal systems in amounts that significantly diminish the system's capability to comply with this Order. Pollutant-free wastewater means rainfall, groundwater, cooling waters, and condensates that are essentially free of pollutants.
15. At least 90 days prior to termination or expiration of any lease, contract, or agreement involving disposal or recycling areas or off-site reuse of effluent, used to justify the capacity authorized herein and ensure compliance with this Order, the Discharger shall notify the Central Valley Water Board in writing of the situation and of what measures have been taken or are being taken to ensure full compliance with this Order.
16. In the event of any change in control or ownership of the Facility, the Discharger must notify the succeeding owner or operator of the existence

of this Order by letter, a copy of which shall be immediately forwarded to the Central Valley Water Board.

17. To assume operation as Discharger under this Order, the succeeding owner or operator must apply in writing to the Executive Officer requesting transfer of the Order. The request must contain the requesting entity's full legal name, the state of incorporation if a corporation, the name and address and telephone number of the persons responsible for contact with the Central Valley Water Board, and a statement. The statement shall comply with the signatory paragraph of SPRRS, Standard Provision B.3 and state that the new owner or operator assumes full responsibility for compliance with this Order. Failure to submit the request shall be considered a discharge without requirements, a violation of the Water Code. If approved by the Executive Officer, the transfer request will be submitted to the Central Valley Water Board for its consideration of transferring the ownership of this Order at one of its regularly scheduled meetings.
18. **At least 90 days prior to conveying recycled water from the Facility to a use area**, the Discharger must apply for coverage under State Water Board Order WQ 2016-0068-DDW, Water Reclamation Requirements for Recycled Water (Reclamation General Order). As part of the application for the Reclamation General Order, the Discharger must provide a Title 22 Engineering Report approved by DDW. Recycling of tertiary-treated effluent shall commence upon enrollment under the Reclamation General Order.
19. The Central Valley Water Board will review this Order periodically and will revise requirements when necessary.

### ENFORCEMENT

If, in the opinion of the Executive Officer, the Discharger fails to comply with the provisions of this Order, the Executive Officer may refer this matter to the Attorney General for judicial enforcement, may issue a complaint for administrative civil liability, or may take other enforcement actions. Failure to comply with this Order may result in the assessment of Administrative Civil Liability of up to \$10,000 per violation, per day, depending on the violation, pursuant to the Water Code, including sections 13268, 13350, and 13385. The Central Valley Water Board reserves the right to take any enforcement actions authorized by law.

### **ADMINISTRATIVE REVIEW**

Any person aggrieved by this Central Valley Water Board action may petition the State Water Board for review in accordance with Water Code section 13320 and California Code of Regulations, title 23, section 2050 et seq. The State Water Board must receive the petition by 5:00 p.m. on the 30th day after the date of this Order; if the 30th day falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. [Copies of the law and regulations applicable to filing petitions](#) are available on the Internet (at the address below) and will be provided upon request.

([http://www.waterboards.ca.gov/public\\_notices/petitions/water\\_quality](http://www.waterboards.ca.gov/public_notices/petitions/water_quality))

### **ATTACHMENTS**

Attachment A—Location map  
Attachment B—Facility Layout  
Attachment C—Flow Schematic

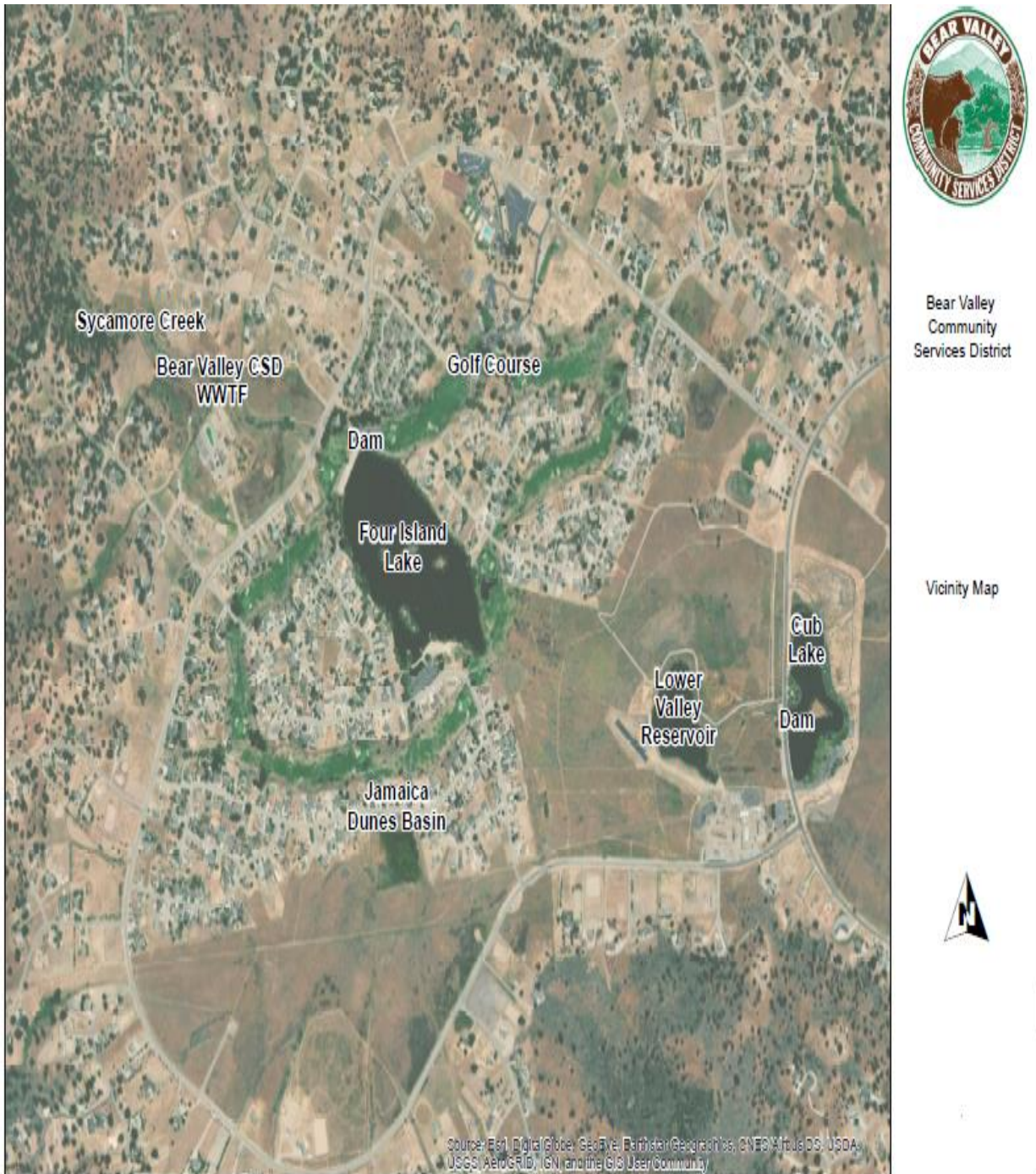
Information Sheet

Standard Provisions and Reporting Requirements (SPRRs), dated 1 March 1991

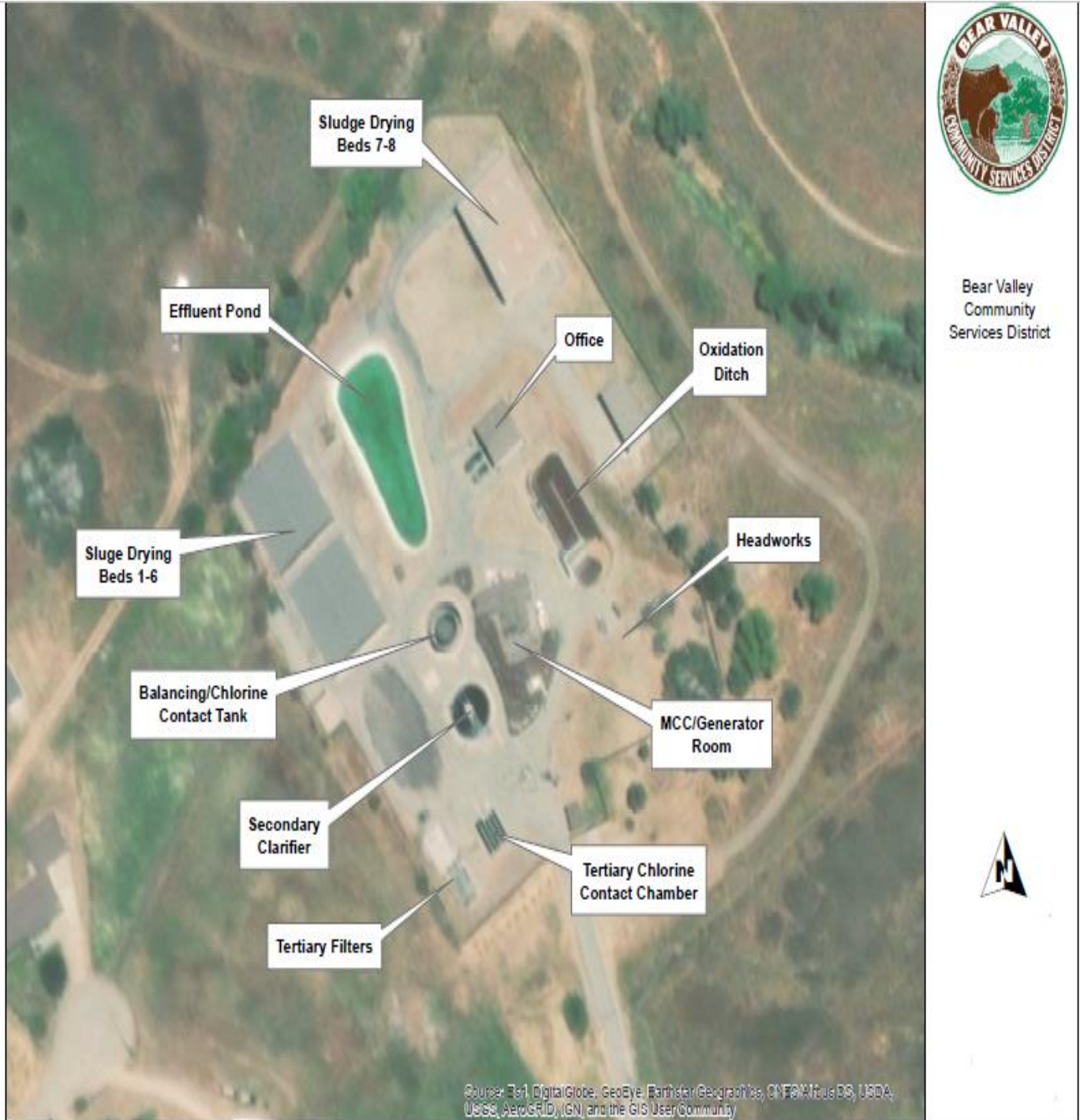
Monitoring and Reporting Program **R5-2024-####**



### ATTACHMENT A—LOCATION MAP

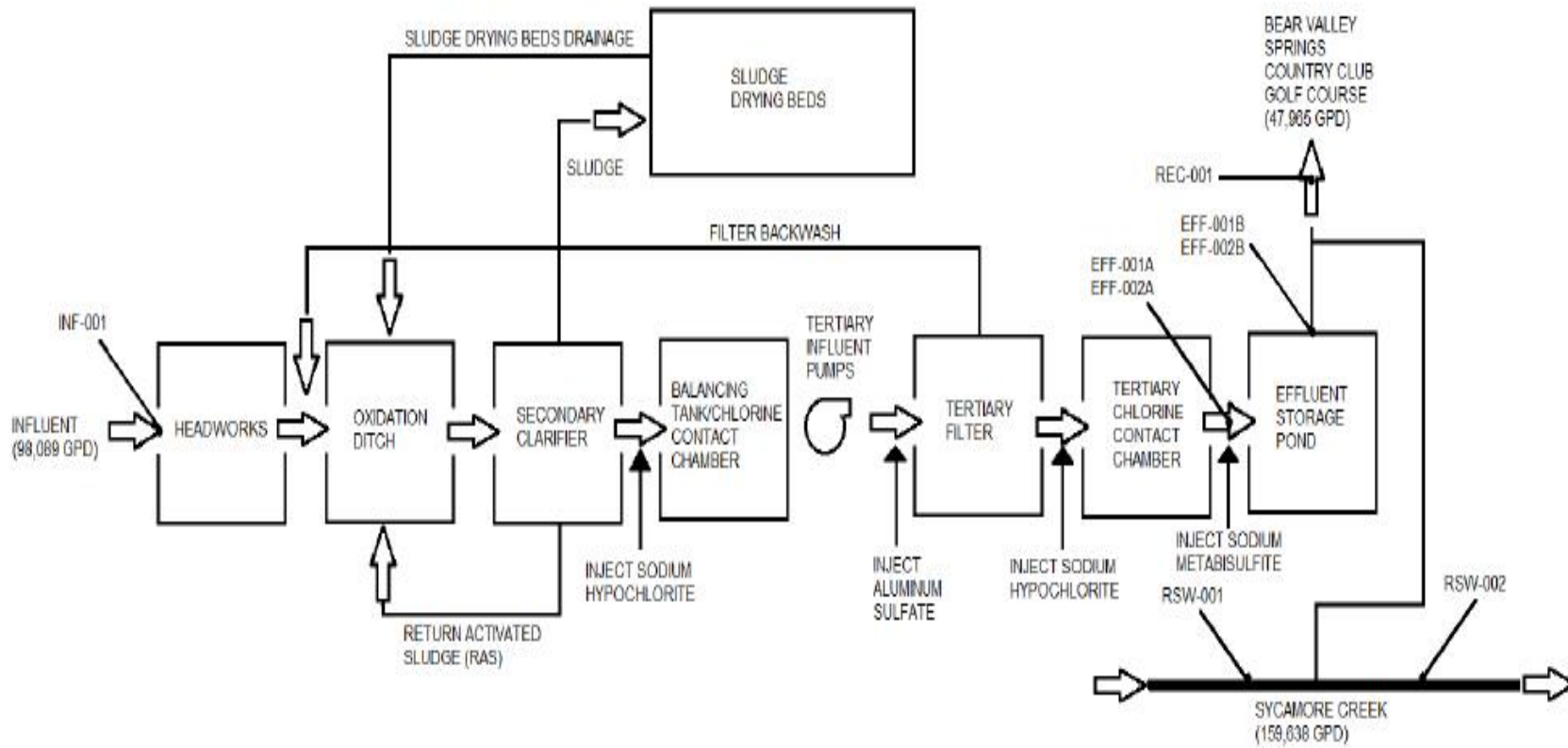


### ATTACHMENT B—FACILITY LAYOUT





**ATTACHMENT C—FLOW SCHEMATIC**





CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION

[Tentative] Waste Discharge Requirements Order R5-2024-####  
for

Bear Valley Community Services District  
Bear Valley Community Services District Wastewater Treatment Facility  
Kern County

**INFORMATION SHEET**

**BACKGROUND**

The Bear Valley Community Services District Wastewater Treatment Facility (Facility) is owned and operated by Bear Valley Community Services District (Discharger). Bear Valley Community Services District also owns the Bear Valley Oak Tree Country Club golf course to which recycled water from the Facility is discharged to. However, the golf course is managed by Bear Valley Springs Association. The Facility provides sewerage service for the community of Bear Valley Springs and serves a population of approximately 1,100 residents. Between August 2016 through July 2022 the Facility's average daily flow was approximately 0.08 million gallons per day (mgd). The Facility's current average dry weather flow effluent limit is 0.25 mgd (May through October).

The Facility was previously regulated under Waste Discharge Requirements (WDRs) Order R5-2015-0011 (NPDES No. CA0081213) which allowed discharge of disinfected, tertiary-treated domestic wastewater to Sycamore Creek, Bear Valley Oak Tree Country Club golf course, and landscaped areas surrounding the Facility.

On 16 March 2021, the Discharger submitted a technical report that provides an evaluation of Sycamore Creek. The technical report contends Sycamore Creek is not a water of the United States and does not have the potential to reach a water of the United States. On 19 March 2021, the District formally requested to withdraw from the NPDES permitting program and operate under WDRs. After reviewing the information, Central Valley Water Board staff determined that proceeding with WDRs without a NPDES permit is appropriate.

**CURRENT WASTEWATER TREATMENT FACILITY AND DISCHARGE**

The treatment system at the Facility consists of bar screening, an oxidation ditch, a secondary clarifier, chlorination, two continuous backwash sand filters (used alternately), final chlorine contact chamber and a 240,000 gallon concrete-lined storage pond. Biosolids/sludge produced from the secondary clarifier is dried in eight concrete-lined sludge drying beds. Dried sludge is hauled to a landfill for disposal. The Facility produces approximately 21.2 dry metric tons of dried sludge/biosolids annually.

[TENTATIVE] WASTE DISCHARGE REQUIREMENTS ORDER R5-2024-####  
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Disinfected, tertiary-treated wastewater is discharged to:

- i. Discharge Point 001 (Monitoring Location EFF-001A and EFF-001B): Treated wastewater is discharged from the Facility to Sycamore Creek. Prior to direct discharge to Sycamore Creek, treated domestic wastewater is stored in the concrete-lined storage pond.
- ii. Discharge Point 002 (Monitoring Location EFF-002A and EFF-002B): Recycled disinfected tertiary-treated effluent is stored in the concrete-lined storage pond prior to being discharged to the golf course and landscaped areas surrounding the Facility. The Discharger has expressed interest in applying recycled water to additional areas within the Bear Valley Community Services District.

“Disinfected tertiary recycled water” means a filtered and subsequently disinfected wastewater that meets the following criteria:

1. The filtered wastewater has been disinfected by either:
  - a. A chlorine disinfection process following filtration that provides a CT (the product of total chlorine residual and modal contact time measured at the same point) value of not less than 450 milligram-minutes per liter at all times with a modal contact time of at least 90 minutes, based on peak dry weather design flow; or
  - b. A disinfection process that, when combined with the filtration process, has been demonstrated to inactivate and/or remove 99.999 percent of the plaque-forming units of F-specific bacteriophage MS2, or polio virus in the wastewater. A virus that is at least as resistant to disinfection as polio virus may be used for purposes of the demonstration.
2. The median concentration of total coliform bacteria measured in the disinfected effluent does not exceed an MPN of 2.2 per 100 milliliters utilizing the bacteriological results of the last seven days for which analyses have been completed and the number of total coliform bacteria does not exceed an MPN of 23 per 100 milliliters in more than one sample in any 30 day period. No sample shall exceed an MPN of 240 total coliform bacteria per 100 milliliters.

This Order authorizes the continued discharge of disinfected tertiary treated wastewater to Sycamore Creek. Recycled water from the Facility is discharged to the Bear Valley Oak Tree Country Club golf course. However, this Order does not include reclamation requirements pursuant to Title 22. In order to recycle the tertiary-treated effluent from the Facility, the Discharger must apply for and receive coverage under State Water Board Order WQ 2016-0068-DDW, Water Reclamation Requirements For Recycled Water Use (hereafter, Reclamation General Order). Once approved, the Discharger will

[TENTATIVE] WASTE DISCHARGE REQUIREMENTS ORDER R5-2024-####  
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BEAR VALLEY COMMUNITY SERVICES DISTRICT WASTEWATER TREATMENT FACILITY  
KERN COUNTY  
**INFORMATION SHEET**

receive a Notice of Applicability that will serve as a formal notice that the Reclamation General Order is applicable to the Facility's discharge.

**GROUNDWATER CONSIDERATIONS**

Groundwater conditions are discussed in Findings 31-34 of the Order.

**ANTIDegradation**

Antidegradation analysis and conclusions are discussed in Findings 53 to 60 of the Order.

**DISCHARGE PROHIBITIONS, EFFLUENT LIMITATIONS, DISCHARGE SPECIFICATIONS, AND PROVISIONS**

This Order maintains the flow, biochemical oxygen demand, total suspended solids, total chlorine residual, and total coliform organisms' effluent limitations from Order R5-2015-0011. To address salinity in the discharge, this Order establishes a Salinity Action Level of 1,300 µmhos/cm at Discharge Point 001 (Monitoring Location EFF-001B) and 1,420 µmhos/cm at Discharge Point 002 (Monitoring Location EFF-002B) as annual averages. The Salinity Action levels were calculated using the highest annual average EC and adding approximately 20 percent to allow some flexibility for water conservation efforts.

This Order also contains a time schedule for pH to allow the discharger time to come into compliance with pH effluent limitations evaluated at Monitoring Location EFF-001B. Previous WDRs for this Facility evaluated compliance with pH effluent limitations at EFF-001A. Monitoring Location EFF-001A is not the most representative of the discharge affecting Sycamore Creek, nor is it consistent with how pH has been regulated by the Central Valley Water Board throughout the region in similar circumstances. Effluent data at EFF-001B from August 2016 to July 2022 show that the Discharger cannot reliably comply with pH effluent limitations evaluated at EFF-001B. Thus, this Order includes interim effluent limitations of 6.5 to 8.3 that are enforced at Monitoring Location EFF-001A beginning (effective date). Beginning (5 years from effective date), compliance for pH effluent limits of 6.5 to 8.3 are required to be measured at Monitoring Location EFF-001B.

The Facility treats domestic wastewater, untreated domestic wastewater contains ammonia in concentrations that, without treatment, would be harmful to the receiving water. Thus, this Order establishes ammonia effluent limits based on updated monitoring data. The 2013 U.S. EPA National Ambient Water Quality Criteria (NAWQC) for the protection of freshwater aquatic life for total ammonia (2013 Criteria), recommends acute (1-hour average; criteria maximum concentration or CMC) and chronic (30-day average; criteria continuous concentration or CCC) standards based on pH and temperature. U.S. EPA also recommends that no 4-day average concentration should exceed 2.5 times the 30-day CCC. These criteria are protective of the Basin Plan's narrative toxicity objective, and the ammonia effluent limitations established in

this Order are based on the 2013 Criteria. Monitoring Location EFF-001A is not the most representative of the discharge affecting Sycamore Creek, nor is it consistent with how ammonia has been regulated by the Central Valley Water Board throughout the region in similar circumstances. Thus, this Order establishes an average monthly effluent limit of 1.2 mg/L and an average weekly effluent limit of 2.6 mg/L at Monitoring Location EFF-001B.

U.S. EPA developed NAWQC for protection of freshwater aquatic life for chlorine residual. The recommended 4-day average (chronic) and 1-hour average (acute) criteria for chlorine residual are 0.011 mg/L and 0.019 mg/L, respectively. These criteria are protective of the Basin Plan's narrative toxicity objective, and the total residual chlorine effluent limitations established in this Order are based on these criteria.

### **MONITORING REQUIREMENTS**

Section 13267 of the California Water Code authorizes the Central Valley Water Board to require monitoring and technical reports as necessary to investigate the impact of waste discharges on waters of the State. Water Code Section 13268 authorizes assessment of civil administrative liability where appropriate. The Order includes influent, effluent, and water supply monitoring requirements. This monitoring is necessary to characterize the discharge and evaluate compliance with the requirements and specifications in the Order.

The Facility has four effluent monitoring locations: Monitoring Location EFF-001A (final disinfected, tertiary-treated effluent after the chlorine contact chamber, prior to discharge to the storage pond when discharging to Sycamore Creek), Monitoring Location EFF-001B (final disinfected, tertiary-treated effluent in or after the storage pond, prior to discharge to Sycamore Creek), Monitoring Location EFF-002A (final disinfected, tertiary-treated effluent after the chlorine contact chamber, prior to discharge to the storage pond when discharging to recycled water use areas), and EFF-002B (final disinfected tertiary-treated effluent in or after the storage pond, prior to discharge to recycled water use areas).

### **SALT AND NITRATE CONTROL PROGRAMS REGULATORY CONSIDERATIONS**

As part of the Central Valley Salinity Alternatives for Long-Term Sustainability (CV-SALTS) initiative, the Central Valley Water Board adopted Basin Plan amendments (Resolution R5-2018-0034) incorporating new programs for addressing ongoing salt and nitrate accumulation in the Central Valley at its 31 May 2018 Board Meeting. On 16 October 2019, the State Water Board adopted Resolution No. 2019-0057 approving the Central Valley Water Board Basin Plan amendments and also directed the Central Valley Water Board to make targeted revisions to the Basin Plan amendments within one year from the approval of the Basin Plan amendments by the Office of Administrative Law. The Office of Administrative Law approved the Basin Plan amendments on 15 January 2020 (OAL Matter No. 2019-1203-03) and were revised by the Central Valley Water Board in 2020 with [Resolution R5-2020-0057](#)

[TENTATIVE] WASTE DISCHARGE REQUIREMENTS ORDER R5-2024-####  
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([https://www.waterboards.ca.gov/centralvalley/board\\_decisions/adopted\\_orders/resolutions/r5-2020-0057\\_res.pdf](https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/resolutions/r5-2020-0057_res.pdf)).

For the Basin Plan Salt Control Program, dischargers unable to comply with stringent salinity requirements will need to participate in a basin-wide planning effort known as the Prioritization and Optimization Study (or P&O Study) to develop a long-term salinity strategy for the Central Valley. A Notice to Comply for the Salt Control Program was issued to the Discharger (CV-SALTS ID 3309) on 5 January 2021. On 6 December 2023 the Discharger submitted its Notice of Intent to comply with the Salt Control Program by joining the P&O Study. Consistent with the Basin Plan Salt Control Program, this Order requires the Discharger to implement reasonable, feasible, and practicable efforts to control salt, including setting performance-based effluent limits, while participating in the P&O Study.

For the purposes of the Basin Plan Nitrate Control Program, the Facility is not within an identified basin/sub-basin. For basin/sub-basins not identified, the Nitrate Control Program will apply when the Central Valley Water Board's Executive Officer determines it is necessary and appropriate to address nitrate discharges to localized groundwater.

**REOPENER**

The conditions of discharge in the Order were developed based on currently available technical information and applicable water quality laws, regulations, policies, and plans, and are intended to assure conformance with them. The Order sets limitations based on the information provided thus far. If applicable laws and regulations change, or once new information is obtained that will change the overall discharge and its potential to impact surface water and groundwater, it may be appropriate to reopen the Order.

**LEGAL EFFECT OF RESCISSION OF PRIOR WDRS OR ORDERS ON EXISTING VIOLATIONS**

The Board's rescission of prior waste discharge requirements and/or monitoring and reporting orders does not extinguish any violations that may have occurred during the time those waste discharge requirements or orders were in effect. The Central Valley Water Board reserves the right to take enforcement actions to address violations of prior prohibitions, limitations, specifications, requirements, or provisions of rescinded waste discharge requirements or orders as allowed by law.